

The “Sharing” Economy

Issues Facing Platforms, Participants
& Regulators

AN FTC STAFF REPORT

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A Federal Trade Commission Staff Report

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This staff report represents the views of the FTC staff and does not necessarily represent the views of the Commission or any individual Commissioner.

The Commission, however, has voted to authorize the staff to issue this staff report.

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Executive Summary

Introduction

In our competitive economy, innovation is a major driver of long-term consumer welfare gains. Disruptive innovation in particular offers great potential benefits to consumers. Markets can be transformed by new technology; novel products, services, or business models; or new sources of supply. This innovation, economist Joseph Schumpeter argued, is a “perennial gale of creative destruction” that propels market economies to meet consumer demands.¹ The opportunity to compete in the marketplace affords potential innovators the incentives to undertake the expensive, difficult, and risky process of creating and introducing innovative products and services. Preserving such opportunities has long been a core part of the Federal Trade Commission’s competition mission.

Over the past few years, disruptive innovation by peer-to-peer platforms, such as Uber, Lyft, and Airbnb, has been altering the landscape of sectors such as for-hire transportation and short-term lodging. These platforms, collectively dubbed the “sharing economy” by many observers,² establish marketplaces that enable transactions between numerous suppliers (who frequently are individuals or small entities) and consumers. These platforms, and the parties transacting on them, are capitalizing on the widespread adoption of internet and smartphone technology and significantly reshaping how products and services are provided. They have brought substantial benefits to consumers and suppliers alike, while challenging incumbents who have traditionally served those sectors.

Sharing economy platforms have experienced a meteoric rise in recent years, and are projected to grow rapidly in the near future. For example, PricewaterhouseCoopers has estimated that five key sharing economy sectors generated \$15 billion in revenues worldwide in 2013, and that they will generate \$335 billion by 2025.³ Two travel-related sectors have been at the center of this phenomenon: for-hire transportation service (similar to service provided by traditional taxis and limousines) and short-term lodging service (broadly similar to service provided by hotels and bed-and-breakfasts). The two leading firms, Uber and Airbnb, are each less than a decade old and have been valued at \$62.5 billion and \$25.5 billion, respectively.⁴

The rapid growth of some of these platforms has stirred considerable debate over the application of state and local regulation to these platforms and the suppliers who use them. On the one hand, regulatory measures may be needed to protect consumers, promote public safety, and meet other

¹ JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 84 (3d ed. 1950).

² While there is a debate over the accuracy of the term “sharing economy,” this report uses it simply to refer to peer-to-peer platforms and the commercial activity that takes place on those platforms. The debate is addressed below. *See infra* pp. 10-11.

³ Press Release, PricewaterhouseCoopers, Five Key Sharing Economy Sectors Could Generate £9 Billion of UK Revenues by 2025 (Aug. 15, 2014), http://pwc.blogs.com/press_room/2014/08/five-key-sharing-economy-sectors-could-generate-9-billion-of-uk-revenues-by-2025.html. Others also project rapid growth for various sectors. *See, e.g.*, Sam Smith, *Uber, Lyft & Other Ride Sharing Services to See Revenues Double by 2020, Reaching \$6.5 Billion*, INVESTORIDEAS.COM (Apr. 6, 2016), <http://www.investorideas.com/news/2016/main/04061.asp> (reporting research by Juniper.com).

⁴ *See infra* notes 24, 25.

legitimate governmental goals. On the other hand, regulation can chill incentives for innovation by increasing costs and decreasing potential returns, thereby impeding or preventing new entry and depriving consumers of the benefits of new product and service offerings. Lawmakers and regulators face a challenging task in balancing these concerns. The novel products or services at issue, or the manner in which they are supplied, may be quite different from those of incumbent firms with which they have ample regulatory experience. Moreover, disruptive innovation tends to produce dynamic, evolving markets, complicating the task of adjusting regulations.

To better understand the economic activity generated and issues raised by emerging internet peer-to-peer platforms, the Federal Trade Commission held a workshop in June 2015 entitled *The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators*.⁵ The Workshop brought together legal, economic, and business experts as well as stakeholders to examine competition, consumer protection, and economic issues arising from sharing economy activity. The Commission also issued a request for comments and received over 2,000 public comments in response.⁶

This report describes and summarizes the ideas and issues discussed at the Workshop and in the comments received from the public. In particular, the report discusses the economics underlying how these marketplaces operate, and the platforms’ approaches to addressing consumer protection and other regulatory concerns through trust mechanisms. It examines the costs and benefits resulting from the entry of these disruptive competitors, and regulatory approaches to protect consumers and the public while preserving the benefits of competition offered by these new sources of supply. It focuses on questions directly relevant to the Commission’s responsibilities to protect consumers and promote competition, and does not address topics outside its areas of expertise and authority.⁷

Chapter 1 focuses on the economics of sharing economy marketplaces, particularly how these platforms use technology to facilitate low-cost transacting among many small suppliers and buyers, as well as certain competition issues that may arise as sharing economy marketplaces mature. Chapter 2 addresses technology-enabled trust mechanisms that platforms have implemented to give participants

⁵ Fed. Trade Comm’n, Workshop Announcement, The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators (Apr. 17, 2015), <https://www.ftc.gov/system/files/attachments/press-releases/ftc-examine-competition-consumer-protection-economic-issues-raised-sharing-economy-june-workshop/150416economyworkshop.pdf>. Appendix C contains the Workshop agenda. All of the materials from the Workshop, including a video of the proceedings, are available on the Workshop webpage: *The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators*, FED. TRADE COMM’N (June 9, 2015), <https://www.ftc.gov/news-events/events-calendar/2015/06/sharing-economy-issues-facing-platforms-participants-regulators>. A transcript of the proceedings is also available. Transcript of Sharing Economy Workshop, Fed. Trade Comm’n (June 9, 2015), https://www.ftc.gov/system/files/documents/public_events/636241/sharing_economy_workshop_transcript.pdf [hereinafter Workshop Tr.].

⁶ See Fed. Trade Comm’n, Workshop Announcement, *supra* note 5; List of Public Comments regarding Sharing Economy Workshop, FED. TRADE COMM’N, <https://www.ftc.gov/policy/public-comments/initiative-607>. Appendix A lists all of the public comments cited in this report, together with links to the documents. Appendix B provides a brief overview of the public comments.

⁷ For example, the report does not examine important questions such as whether platform suppliers are independent contractors or employees, what safeguards may be needed to help deter racial or other forms of discrimination, or what measures are appropriate to effectively and efficiently increase access for those with disabilities. Although the Commission recognizes the importance of these issues, it did not address these topics at the Workshop because they lie outside its areas of expertise and authority. Rather, the Workshop focused on questions more directly relevant to the Commission’s responsibilities to protect consumers and promote competition.

confidence that transactions with strangers will go smoothly. Chapter 3 examines the debate surrounding the approaches governments should adopt in regulating sharing economy platforms and suppliers. Chapter 4 discusses the rise of the sharing economy in two key sectors, short-term lodging and for-hire transportation service, the competition between platform-based suppliers and traditional incumbents, and the resulting debate over how regulators should respond.

Chapter 1

A sharing economy marketplace involves three important sets of players – *the platform*, which provides the marketplace, *the buyers* (also referred to in varying contexts as consumers, riders, or renters), and *the sellers* (also referred to in varying contexts as suppliers, providers, or hosts). The buyers and sellers are typically individuals or small entities who transact over the platform. A platform provides a discrete set of services to the parties using it, facilitating their efforts to transact effectively and efficiently, including searching for potential transacting partners, agreeing to terms with them, and performing the contract. To facilitate transactions, a platform typically designs and provides an online marketplace that buyers and sellers can access by employing various internet-connected digital communications devices. These devices – often mobile, geolocation-enabled smartphones and tablets – are typically owned by the participants themselves rather than supplied by the platform. They generally run mobile software applications (“apps”) that simplify the process for accessing and using the platform, its search engine, and platform software designed to match buyers and sellers.

A sharing economy platform may compete with other platforms within its sector to attract buyers and sellers as participants, as well as with traditional suppliers of goods and services similar to those sold over the platform. For example, Uber and Lyft compete with existing taxicab companies for riders, as well as with each other for drivers and riders. The platform’s commercial success depends on the extent to which it is able to attract users and earn revenues, for example by charging fees for the transactions.

Workshop participants identified three characteristics of a successful platform marketplace.

First, it must attract a large number of participants to both sides of the market, so that each participant has a substantial number of potential matches on the other side of the market (resulting in a “thick” market). The value of the platform to a participant depends on the number of participants on the other side of the market, resulting in two-sided network effects. Workshop panelists explored the importance of market “thickness” and the potential impact of network effects on market concentration and platform entry.

Second, a platform must enable potential transaction partners to search for one another, find a match, and complete a transaction. To be successful, a platform must reduce friction that otherwise would make transactions costly or more cumbersome. For example, a platform may define the product or service when customers have diverse preferences across a heterogeneous spectrum of goods or services, and suppliers offer a correspondingly diverse set of offerings. A narrow product definition will exclude some similar products offered by sellers from the buyer’s consideration, potentially making the market too thin, whereas a broad definition may include so many diverse products offered by sellers that comparisons could be difficult for many buyers. For example, Workshop participants contrasted Uber, which quickly makes a match between riders and drivers based on geographical proximity, with Airbnb,

which enables prospective renters to search many listings, consider a broad array of attributes, and choose which hosts to contact.

Third, platforms must make transacting between strangers safe and reliable enough that buyers and sellers feel confident that their transaction will proceed as agreed. Chapter 2 describes how platforms seek to address this need by implementing reputation systems and other trust mechanisms.

The Workshop also addressed some of the factors underlying the growth of the sharing economy. Participants discussed how platforms can facilitate entry by small suppliers, for example, by providing them with the means to efficiently reach customers on a large scale. They also explored how, in many cases, small suppliers can offer goods and services at attractive prices because they can employ underutilized assets. For example, hosts who wish to use their residences more fully may list them as short-term rentals on Airbnb. Because these sellers already have a key asset, in this case their residence, the capital investments required to enter the market may be small, lowering barriers to entry and the overall cost of service. Platforms generally also provide suppliers with flexibility to choose when to provide service, for example, by focusing on periods when they have underutilized time or when demand is highest.

Finally, the Chapter turns to several policy issues that may arise as the sharing economy matures, although Workshop participants found it difficult to make predictions in these areas. Panelists discussed whether professional (as opposed to part-time) sellers may account for an increasing proportion of supply over sharing economy platforms. eBay, several participants observed, has seen a pronounced shift from individual to small business sellers. Panelists differed regarding the extent to which such a switch is likely to occur on other platforms.

Panelists also considered whether and to what extent two-sided network effects might enable a platform to amass a large portion of participants in a market, thereby achieving a dominant position and potentially precluding effective competition from other platforms. Workshop participants generally expressed some skepticism regarding such concerns. Several identified countervailing market forces that could constrain a large platform, such as the ability of participants to join multiple platforms simultaneously (*i.e.*, “multi-homing”). Moreover, they recognized that a high concentration of participants on a single marketplace, even if it leads to dominance, could be highly valuable to both buyers and sellers, potentially making the impact of network effects on balance positive.

Panelists addressed the potential for platforms to integrate vertically, for example by employing people to supply service over the platform rather than simply providing a marketplace. Panelists generally were skeptical regarding the likelihood of such vertical integration, but recognized it could raise competition policy concerns. They also stated that vertical integration could be beneficial, by improving efficiency in the sharing economy. Indeed, panelists discussed the possibility that vertical integration may give some platforms the ability to address negative externalities, for example, how a vertically integrated Uber might be better able to deal with the problem of traffic congestion.

Chapter 2

Chapter 2 provides an overview of why trust mechanisms are important in the sharing economy, how particular platforms employ trust mechanisms, and how these mechanisms work to promote buyer and seller satisfaction. To some, the fact that individuals are willing to purchase goods and services from non-professionals or even strangers through sharing economy platforms represents something of a puzzle. A seller operating in the sharing economy can be anonymous, having made little or no investment in establishing a physical commercial space or even a business reputation, and thus does not typically offer buyers the opportunity to inspect goods or services in-person prior to purchase. For these and other reasons, there has been some concern that low-quality sellers would be attracted to these marketplaces, potentially driving out high-quality sellers and causing marketplaces either to dissolve or to deal primarily in low-quality goods and services.

Panelists observed, however, that these problems do “not stop the sharing economy from prospering . . . because the internet also provides a number of new tools to address the problem[s].”⁸ Platforms use reputation ratings systems and other trust mechanisms, employing internet and software technologies, to encourage good behavior by participants on the platforms. Perhaps the most familiar example is the seller rating system developed by eBay through which buyers can rate their experience with a particular seller, generating an aggregate “Feedback score” that incorporates the ratings from many individual buyers. Sharing economy platforms have developed their own reputation ratings systems, adapted to the particular good or service sold over the platform. Common features include the opportunity for both buyers and sellers to rate one another, the opportunity to rate along different dimensions of the product (*e.g.*, the quality of communication or the quality of the good itself), and safeguards against user manipulation via fake reviews.

The panelists participating in the Workshop generally agreed that, although reputation ratings systems do not eliminate buyer or seller dissatisfaction, they work well enough to have facilitated the enormous growth of the sharing economy. Panelists highlighted research showing that a seller’s reputation rating influences buying decisions on a platform: a higher-rated seller is likely to earn a premium compared to a lower-rated seller offering the same good. In addition to earning a premium, a higher rating also increases the probability that an individual seller will make a sale. Panelists also opined that reputation mechanisms work well to deter fraudulent behavior from occurring on the platform.

Although panelists generally agreed that reputation ratings systems are working well in the sharing economy, many expressed the view that these systems do not function perfectly. In particular, panelists expressed views or outlined evidence showing that reputation ratings may be biased upward because platform users tend to leave positive feedback or no feedback at all rather than leave negative feedback. Reputation ratings may also be biased toward extreme experiences because users may be more likely to take the time to leave feedback if they have a particularly positive or negative experience with a transaction partner. In addition, panelists opined that a reputation rating in the sharing economy may be misleading, because users may act strategically by leaving fake reviews, or be reluctant to criticize a person they have dealt with directly, such as a host on Airbnb. Further, panelists explained that

⁸ Workshop Tr. at 55 (Chrysanthos Dellarocas). *See generally infra* Chapter 2, Section III.

reputation ratings may not accurately reflect a user’s quality if the user is just starting out on the platform or planning to exit the platform soon. In the former case – the so-called “cold start” – if the number of transactions an individual user has engaged in is low or zero, even a well-functioning reputation system would have difficulty assessing that individual’s quality. The latter case involves “reputation milking,” whereby a user trades on a well-established reputation for high-quality but provides low-quality prior to leaving the platform.

Workshop participants addressed a number of ways platforms could adjust their reputation systems to account for some of these problems. Potential adjustments by a platform include: reporting a user’s percentile ranking alongside his or her aggregate score; reporting on the number of unrated or “silent” transactions for a given user; and/or weighing recent transactions more heavily than older ones in calculating an individual user’s reputation score. In addition to adjusting the reputation rating system, panelists pointed to efforts by platforms to promote trust among users by incorporating so-called “platform interventions.” Platform interventions include curating entry onto the platform, such as by performing background checks of users (particularly service providers), or providing certain “guarantees” by the platform, such as by refunding money to dissatisfied customers or supplying insurance in the event one user causes damage to another. Platform interventions can help solve problems associated with cold start and reputation milking in particular.

Panelists also discussed the benefits and costs of having the platform rather than a third party supply the reputation rating system. Panelists generally agreed that combining market-making and reputation-rating within a single platform generates economies of scope, and that for the most part platforms have the appropriate incentives to provide sufficient information to allow platform users to choose the proper transaction partner. That said, some panelists also recognized that because platforms often earn fees based upon the number of transactions that they enable, they could have an incentive to inflate the quality of users’ reputations if doing so would increase the number of transactions.

Chapter 3

Chapter 3 addresses the debate surrounding regulation of the sharing economy. Regulating sharing economy transactions raises several concerns. On the one hand, appropriate regulatory measures can protect consumers, promote public safety, and meet other legitimate government goals. On the other hand, unnecessary or excessive regulation can chill the disruptive innovation associated with sharing economy platforms – for example, by raising barriers to entry or increasing costs of operation – and thereby delay or reduce the substantial consumer benefits that often accrue when new competitors enter the marketplace. Lawmakers and regulators must balance these competing considerations in determining how to regulate economic activity on sharing economy platforms.

As the FTC explained in a submission to the Organisation for Economic Co-operation and Development (OECD):

Competition authorities can play an important role shaping the inevitable transitions caused by disruptive innovation, by advocating for regulatory responses that do not unduly restrain competition, enforcing competition rules to ensure that incumbents do not foreclose new rivals

from the market, and using studies and other research methods to foster greater understanding of new technologies and business models.⁹

The FTC plays just such a role through its competition advocacy program, which provides advice and input on competition policy issues raised by, for example, state and local regulation of sharing economy business models.

The Commission, through advocacy and comment letters addressing state and local regulation affecting platform-based local transport services, has articulated broadly applicable principles for balancing competition policy and regulatory goals. Specifically, regulators should impose requirements only when there is evidence that regulation is needed to protect consumers and the public or to serve some other legitimate public goal. Moreover, regulatory actions should be tailored so that they are no more restrictive than necessary to serve those goals.

Chapter 3 describes the views expressed by Workshop participants on these issues. According to some participants, sharing economy suppliers frequently compete with traditional suppliers of similar products or services, and should be subject to the same regulatory requirements to ensure a level playing field. Other participants, however, suggested that requirements imposed on new platform suppliers be tailored to the particular circumstances they present, and account for the existence of any platform-supplied features and mechanisms that address regulatory needs. Indeed, some participants expressed skepticism regarding existing regulatory provisions, suggesting that they may be outmoded, may reflect erroneous assessments of regulatory needs, or may be designed to protect incumbents. They suggested that regulators reform such provisions to lift unnecessary burdens from both platform and traditional suppliers.

Evaluating these competing claims is complicated by the differing interests of the players. Entrants may have incentives to understate the extent to which regulation of their activities is needed to protect consumers and third parties; conversely incumbents may have incentives to respond to new entry by using the regulatory process to impede competition. For example, they may demand that regulators force such entrants to follow the same regulations applied to them, regardless of relevant differences in business models.

Panelists generally recognized that regulatory issues involving sharing economy platforms may differ substantially from those posed by traditional suppliers. As discussed in Chapter 2, reputation systems and other trust mechanisms (*e.g.*, insurance, guarantees, vetting of participants) provided by platforms may significantly lessen consumer protection concerns arising from inadequate knowledge, and therefore reduce the need for regulation to address these problems. Panelists also described how new technology has improved communications between suppliers and customers and thus could reduce the need for certain regulatory provisions. Panelists generally recognized that traditional suppliers may adopt similar technology and business models, and that should they do so, regulators should adjust their regulatory treatment accordingly.

⁹ Comment from Fed. Trade Comm’n to Competition Committee, OECD Directorate for Financial and Enterprise Affairs, OECD 2 (June 19, 2015), https://www.ftc.gov/system/files/attachments/us-submissions-oecd-other-international-competition-fora/1507disruptive_innovation_us.pdf.

In examining potential approaches to regulating the sharing economy, a number of Workshop participants emphasized that the growth of the sharing economy is the result of new and innovative business models, activity that is inherently risky and unpredictable in nature. The sheer pace of change is staggering. In the space of a few years, several platforms have transformed whole sectors of their respective markets. Several panelists argued that the speed and unpredictability of this innovation will likely make it necessary to adjust regulation substantially as sharing economy markets develop, and therefore called for flexibility in regulatory approaches and avoidance of preemptive regulation.

Finally, Chapter 3 briefly addresses privacy concerns that could arise due to the large amounts of data platforms assemble, particularly about participants and their transactions. Although some panelists suggested the sharing economy raises substantial privacy concerns, there was limited opportunity to analyze the problems and discuss possible policy measures. Several participants noted a tension or need for balancing between privacy concerns and the flow of transaction-specific and customer-specific information that is central to the success of the sharing economy. Commission work on data security and privacy issues can provide useful guidance in this area.

Chapter 4

Chapter 4 focuses attention on the vigorous debates over how to regulate the platforms and platform-based suppliers who have made substantial inroads in the for-hire transport and short-term lodging sectors. Participants identified protecting the health and safety of consumers of these services and the public as core regulatory concerns, and addressed several other regulatory areas as well.

Workshop participants generally recognized that the services provided by new suppliers in the for-hire transport sector (*e.g.*, Uber drivers) were similar in important respects to those provided by taxi drivers. In contrast, participants disagreed on the extent of differences between platform lodging suppliers (*e.g.*, Airbnb hosts) and traditional hotels and bed-and-breakfasts. Airbnb claimed that hosts generally are individual residents who allow guests to stay in their homes once in a while, and should not be subject to regulations applied to hotels and bed-and-breakfasts. Hotels disagreed, claiming in part that many Airbnb hosts are in fact operating commercially and thus should be similarly regulated.

The platforms emphasized that their ratings mechanisms and other policies help address the need to protect consumers and the public. Uber, for example, vets its own drivers, and its rating system is intended to promote safe and effective service. Airbnb has a rating system and handles guests' payments, transmitting them to the hosts only after the guests have checked in. Airbnb and Uber also take other significant steps to provide guarantees and insurance products to suppliers. However, disputes remain as to the adequacy of some of these measures, for example, whether background checks for platform-based drivers should include fingerprinting.

In part due to the similarities of service provided by platform-based drivers and taxi drivers, Workshop panelists agreed that some taxi regulations regarding safety (*e.g.*, vetting drivers, inspecting cars, and requiring insurance) should apply in some form to both. At the same time, they generally suggested that regulators should tailor regulation to reflect key features of sharing economy supply. Indeed, a significant number of jurisdictions have imposed regulations protecting consumers by requiring platform-based drivers to pass background checks, obtain insurance, and meet other

requirements, but have tailored the requirements to the particular circumstances of providing rides over platforms. Such common ground was not evident among panelists in the short-term lodging sector.

The Chapter also briefly reviews the debate over three other areas of regulatory concern in these sectors: collection of applicable taxes, preservation of residential neighborhoods, and service to the disabled or disadvantaged. The Workshop discussion touched on the difficulties some of these issues pose and the need for reliable data to understand them clearly.

The tax issue involves claims by hotels and others that Airbnb hosts generally fail to pay applicable local or state taxes. Representatives of Airbnb and a hotel association who spoke at the Workshop disagreed on the degree of Airbnb’s responsibility and willingness to collect applicable fees and taxes from hosts and transmit them to state or local governments.

The neighborhood preservation issue arises from concerns that short-term renters will undermine the quiet, clean, and safe character of residential neighborhoods, through disruptive or undesirable behavior. Also of concern is the potential for conversion of residential units into full-time Airbnb rentals, which some argued could reduce the supply of affordable housing. Panelists also debated whether hosts are renting in violation of certain local ordinances that restrict short-term rentals (*e.g.*, rentals for less than 30 days) in residential areas. A report prepared by the New York State Attorney General’s office using Airbnb data suggested that many Airbnb rentals in New York City were in violation of the city’s short-term rental restrictions. In addition to disputing the report’s findings, Airbnb argued that the restrictions are antiquated and should be reformed, a position with which hotels and others disagreed.

Workshop participants also briefly discussed the ability of platform drivers to meet obligations to provide service to traditionally underserved customers and disabled riders. Both taxi and Uber representatives acknowledged that service to disabled riders is a challenge for both business models, but noted that they are making efforts to address it.

Introduction¹⁰

Innovation is a major driver of long-term consumer welfare gains in our competitive economy. Disruptive innovation in particular offers great potential benefits to consumers. Markets can be transformed by new technology; novel products, services, or business models; or new sources of supply. This innovation, economist Joseph Schumpeter argued, is a “perennial gale of creative destruction” that propels market economies to meet consumer demands.¹¹ The opportunity to compete in the marketplace affords potential innovators the incentives to undertake the expensive, difficult, and risky process of creating and introducing innovative new products and services. Preserving such opportunities has long been a core part of the Federal Trade Commission’s competition mission.

A variety of new business models, collectively referred to as the “sharing economy,” have emerged in the past few years and are dramatically reshaping how services and products are provided in an expanding number of sectors. Fundamentally, sharing economy platforms use internet, smartphone, and software technologies to create marketplaces that facilitate transactions between numerous peers – decentralized buyers and sellers who are frequently individuals or small entities. Sharing economy platforms enable “the emergence of marketplaces, . . . meeting point[s] for supply and demand, making it easier for almost anyone to become a supplier of goods and services in exchange for money.”¹² They provide transactional services in order to facilitate commercial activity between these participating buyers and sellers,¹³ in contrast with internet retailers that themselves sell goods and services directly to buyers (e.g., Apple’s or Best Buy’s or Drugstore.com’s websites).

The term “sharing economy” itself generates criticism. Some commentators argue that the word “sharing” is a “misnomer” employed to mask the essentially commercial nature of the activity on these platforms.¹⁴ They have argued that the term misleadingly “frames technology-enabled transactions as if they were altruistic or community endeavors”¹⁵ and “create[s] a halo of positive branding to avoid the

¹⁰ This report represents the views of the staff of the Federal Trade Commission. It does not necessarily represent the views of the Commission or of any individual Commissioner. This report describes the views expressed by panelists, commenters, and other speakers and writers in connection with the Workshop. Neither the Commission nor any individual Commissioner necessarily endorses or subscribes to any of those views, which should be understood by the reader as belonging or attributed only to the speaker or writer who expressed them.

¹¹ SCHUMPETER, *supra* note 1, at 84.

¹² CATALAN COMPETITION AUTH., PEER-TO-PEER (P2P) TRANSACTIONS AND COMPETITION 2 (2014), *attached to* Catalan Competition Auth. Comment. *See also* ARUN SUNDARARAJAN, THE SHARING ECONOMY: THE END OF EMPLOYMENT AND THE RISE OF CROWD-BASED CAPITALISM 69 (2016) (sharing economy platforms “may represent a new structure for organizing economic activity, one that is an interesting hybrid of a market and a hierarchy”).

¹³ *See, e.g.*, Rudy Telles Jr., Office of Chief Economist, U.S. Dept. of Commerce, *Issue Brief #01-16, Digital Matching Firms: A New Definition in the “Sharing Economy” Space* 3 (June 3, 2016), <http://www.esa.gov/sites/default/files/digital-matching-firms-new-definition-sharing-economy-space.pdf> [hereinafter U.S. Dept. of Commerce Issue Brief] (“Digital matching firms use information technology (IT systems), typically available via web-based platforms such as mobile ‘apps’ on Internet-enabled devices, to facilitate peer-to-peer transactions.”).

¹⁴ *See, e.g., id.*; Sarah O’Connor, *The Gig Economy is Neither ‘Sharing’ nor ‘Collaborative’*, FIN. TIMES (June 14, 2016), <https://www.ft.com/content/8273edfe-2c9f-11e6-a18d-a96ab29e3c95>.

¹⁵ Natasha Singer, *Twisting Words to Make ‘Sharing’ Apps Seem Selfless*, N.Y. TIMES (Aug. 8, 2015), <http://www.nytimes.com/2015/08/09/technology/twisting-words-to-make-sharing-apps-seem-selfless.html>. On the other hand, some argue that the sharing economy label has been applied to platforms that do promote activities that resemble

discussion of what regulatory structures need to be modernized to deal with these platforms.”¹⁶ For example, a June 2016 report by the U.S. Department of Commerce noted that “terms such as ‘sharing’ and ‘collaborative’” incorrectly “impl[y] services being provided for free” although “[s]ervice providers are simply using their assets to earn money.”¹⁷

Others consider the term “sharing economy” vague, with “a range of meanings.”¹⁸ We have seen various other phrases used to refer to these platform-enabled activities, including “collaborative consumption,” “gig economy,” “on-demand economy,” and the “peer economy.”¹⁹ Given the prevalent use of the term “sharing economy” throughout the Workshop, this report continues to use the term to refer to activity on peer-to-peer platforms that are primarily commercial in nature.

A sharing economy platform must enable participants to transact effectively and inexpensively, which generally includes searching for potential transacting partners, agreeing to terms, and performing the contract. To facilitate transactions, successful platforms typically design and provide a marketplace in which buyers and sellers employ various internet-connected devices to access the platform. These devices, which are frequently mobile, geolocation (“GPS”)-enabled smartphones and tablets, run mobile applications that simplify the process of using the platform. The platform provides a search engine and software designed to match buyers and sellers effectively and efficiently, and “at a scale never seen before.”²⁰ The use of mechanisms to promote confidence in transacting also has greatly contributed to the success of certain sharing economy platforms.

Small-scale, peer-to-peer transactions now occurring over sharing economy platforms are not new at all.²¹ Long before the internet, young people needing a ride or a spare room for a weekend, or a parent needing a household service, might consult a bulletin board or the classified ads, or make some phone calls. Now they can go to sharing economy platforms to obtain rides through the Uber and Lyft platforms, find a room to rent through Airbnb or other similar platforms, or locate a handyman or

conventional sharing, while recognizing that the term is now applied mainly to platforms facilitating commercial activity. *See, e.g.*, Sarah Kessler, *The “Sharing Economy” Is Dead, And We Killed It*, FAST COMPANY (Sept. 14, 2015, 6:06 AM), <https://www.fastcompany.com/3050775/the-sharing-economy-is-dead-and-we-killed-it>.

¹⁶ Adam Chandler, *What Should the ‘Sharing Economy’ Really Be Called?*, THE ATLANTIC (May 26, 2016), <http://www.theatlantic.com/business/archive/2016/05/sharing-economy-airbnb-uber-yada/484505/>.

¹⁷ U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 4.

¹⁸ *Sharing Economy*, WIKIPEDIA, https://en.wikipedia.org/wiki/Sharing_economy (last updated Sept. 29, 2016, 8:57 AM) (“Sharing economy is an umbrella term with a range of meanings, often used to describe economic and social activity involving online transactions.”); *see also* Rachel Botsman, *The Sharing Economy Lacks A Shared Definition*, FAST COMPANY (Nov. 22, 2013, 7:30 AM), <http://www.collaborativeconsumption.com/2013/11/22/the-sharing-economy-lacks-a-shared-definition/>.

¹⁹ *See, e.g.*, Rachel Botsman, *supra* note 18; Gideon Lichfield, *All the Names for the New Digital Economy, and Why None of Them Fits*, QUARTZ (Nov. 12, 2015), <http://qz.com/548137/all-the-names-for-the-new-digital-economy-and-why-none-of-them-fits/>. *See also* U.S. Dept. of Commerce Issue Brief, *supra* note 13 (adopting the term “digital matching firms”); SUNDARARAJAN, *supra* note 12, at 27 (proposing the term “crowd-based capitalism”).

²⁰ Application Developers All. Comment at 1.

²¹ Workshop Tr. at 85-86 (Arun Sundararajan).

cleaning person on TaskRabbit or Handy. These platforms use the internet to facilitate exchanges at a much larger scale, and to reduce the cost associated with matching transaction partners.²²

PricewaterhouseCoopers estimates that sharing economy marketplaces in five sectors – peer-to-peer finance, online staffing, peer-to-peer accommodation, car sharing, and music/video streaming – generated \$15 billion in revenues worldwide in 2013, and projects that these revenues will rise more than twentyfold to \$335 billion by 2025.²³ The magnitude of the sharing economy’s impact has registered in the financial world as well. Some of the largest companies in this space have gone through multiple rounds of funding, in some cases reflecting valuations in the tens of billions of dollars. Based on a round of funding in December 2015, Uber was valued at \$62.5 billion,²⁴ while a November 2015 financing placed Airbnb’s valuation at \$25.5 billion.²⁵ Etsy, the peer-to-peer marketplace for handmade or vintage items, went public in April 2015 and opened with a value of nearly \$4 billion.²⁶ Incumbent businesses are also providing financing to sharing economy marketplaces – partnering with, investing in, or acquiring sharing economy platforms. Since the beginning of 2015, General Motors made a \$500 million investment in Lyft, valuing Lyft’s equity interest at \$5.5 billion,²⁷ and Apple invested \$1 billion in Didi Chuxing, China’s biggest for-hire transportation platform.²⁸ Hotelier Hyatt has purchased a stake in British accommodations platform OneFineStay,²⁹ while Expedia paid \$3.9 billion to acquire the lodging site HomeAway.³⁰

Two sectors of the travel industry have been at the epicenter of the explosion of sharing economy activity:³¹ short-term lodging (specifically, rental stays like those provided by hotels and bed-and-breakfasts) and for-hire transportation service (specifically, services akin to those provided by traditional taxis and limousines). Airbnb has become a leading platform for facilitating short-term rental transactions. Started in 2008 by roommates who rented out space in their apartment during a local convention, Airbnb reported over two million listings in over 34,000 cities, and a cumulative total of 60

²² Comput. & Commc’ns Indus. Ass’n Comment at 2.

²³ Press Release, PricewaterhouseCoopers, *supra* note 3; *see also* Smith, *supra* note 3.

²⁴ Mike Isaac & Leslie Picker, *Uber Valuation Put at \$62.5 Billion After a New Investment Round*, N.Y. TIMES (Dec. 4, 2015), <http://www.nytimes.com/2015/12/04/business/dealbook/uber-nears-investment-at-a-62-5-billion-valuation.html>.

²⁵ Jessica Guynn, *Airbnb Raises \$100M at \$25.5B Valuation*, USA TODAY (Nov. 20, 2015, 7:49 PM), <http://www.usatoday.com/story/tech/2015/11/20/airbnb-100-million-new-round-funding/76128194/>.

²⁶ Neha Dimri, *Crafts Website Company Etsy Valued at \$4 billion in Market Debut*, REUTERS (Apr. 16, 2015, 12:13 PM), <http://www.reuters.com/article/us-etsync-ipo-idUSKBN0N71T420150416>. However, a year later its value had fallen to about \$1 billion. Amy Laroocca, *Etsy Wants to Crochet Its Cake, and Eat It Too*, N.Y. MAG. (Apr. 4, 2016), <http://nymag.com/thecut/2016/04/etsy-capitalism-c-v-r.html>.

²⁷ Alex Fitzpatrick, *Why General Motors Is Investing \$500 Million in Lyft*, TIME (Jan. 4, 2016), <http://time.com/4166130/general-motors-lyft/>.

²⁸ Mike Isaac & Vindu Goelmay, *Apple Puts \$1 Billion in Didi, a Rival to Uber in China*, N.Y. TIMES (May, 12, 2016), <http://www.nytimes.com/2016/05/13/technology/apple-puts-1-billion-in-didi-a-rival-to-uber-in-china.html>.

²⁹ Craig Karmin, *Hyatt Invests in Home-Rentals Firm*, WALL ST. J. (May 21, 2015, 2:27 PM), <http://www.wsj.com/articles/hyatt-invests-in-home-rentals-firm-1432232861>.

³⁰ Leslie Picker, *Expedia to Acquire HomeAway for \$3.9 Billion*, N.Y. TIMES (Nov. 4, 2015), <http://www.nytimes.com/2015/11/05/business/dealbook/expedia-to-acquire-homeaway-for-3-9-billion.html>.

³¹ Irene S. Levine, *From Homes to Meals to Cars, ‘Sharing’ Has Changed the Face of Travel*, CHI. TRIB. (Dec. 16, 2015, 5:49 PM), <http://www.chicagotribune.com/lifestyles/travel/sc-trav-1229-sharing-economy-20151216-story.html>.

million guests by the end of 2015.³² Platforms facilitating the provision of for-hire transportation service are often referred to as transportation network companies (or “TNCs”). The leading TNC, Uber, began operations in 2009 in San Francisco, and as of 2014 reported providing 140 million rides (including one million rides per day by year-end) and a driver base of over 162,000.³³ Pew Research Center found that by 2015, 11 percent of American adults had used an “on-line home-sharing service” and 15 percent had used “ride-hailing apps.”³⁴

The growth of the sharing economy and the accompanying regulatory concerns are of great interest to the Federal Trade Commission. The Commission held a Workshop in June 2015 entitled *The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators*, which is the subject of this report.³⁵ The Workshop brought together legal, economic, and business experts to examine competition, consumer protection, regulatory, and economic issues relating to emerging internet peer-to-peer platforms, and the Commission received over 2,000 public comments on these topics.³⁶

The Commission’s purpose in convening the Workshop and issuing this report is to focus on the important economic and regulatory issues that these peer-to-peer platforms present, not to support or oppose any particular business model. This report describes and summarizes the ideas and issues discussed at the Workshop and in the comments received from the public. In particular, the report discusses the economics underlying how these marketplaces operate, and the platforms’ approaches to addressing consumer protection and other regulatory concerns through trust mechanisms. It examines the costs and benefits resulting from the entry of these disruptive competitors, and regulatory approaches to protect consumers and the public while preserving the benefits of competition offered by these new sources of supply.

As several Workshop panelists discussed, the sharing economy has expanded well beyond the accommodation and transportation sectors.³⁷ A panelist observed that a start-up tracking site lists “about

³² *About Us*, AIRBNB, <https://www.airbnb.com/about/about-us>. Piper Jaffray estimates that Airbnb hosts’ share of the accommodations market could increase from two percent currently to as much as ten percent by 2025. Michael J. Olson & Samuel J. Kemp, Piper Jaffray, *Sharing Economy: An In-Depth Look At Its Evolution and Trajectory Across Industries* 15 (Mar. 2015), <http://collaborativeeconomy.com/wp/wp-content/uploads/2015/04/Sharing-Economy-An-In-Depth-Look-At-Its-Evolution-and-Trajectory-Across-Industries-.pdf>.

³³ Ellen Huet, *Uber Says It’s Doing 1 Million Rides Per Day, 140 Million in Last Year*, FORBES (Dec. 17, 2014, 4:08 PM), <http://www.forbes.com/sites/ellenhuet/2014/12/17/uber-says-its-doing-1-million-rides-per-day-140-million-in-last-year/>; Ellen Huet, *Uber’s Ever-Renewing Workforce: One-Fourth of Its Current U.S. Drivers Joined Last Month*, FORBES (Jan. 22, 2015, 4:14 PM), <http://www.forbes.com/sites/ellenhuet/2015/01/22/uber-study-workforce/>. Piper Jaffray estimates that peer-to-peer “ridesharing” platforms account for \$5.2 billion in global revenues, compared to a global \$90 billion taxi market. Olson & Kemp, *supra* note 32, at 26.

³⁴ Aaron Smith, Pew Research Ctr., *Shared, Collaborative and On Demand: The New Digital Economy* 3 (May 19, 2016), http://www.pewinternet.org/files/2016/05/PI_2016.05.19_Sharing-Economy_FINAL.pdf.

³⁵ Fed. Trade Comm’n, Workshop Announcement, *supra* note 5.

³⁶ *Id.* All of the materials from the Workshop, including a video of the proceedings, a written transcript, and the over 2000 public comments received are available on the Workshop webpage. See *The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators*, *supra* note 5.

³⁷ Workshop Tr. at 83 (Arun Sundararajan); See also Liran Einav, Chiara Farronato & Jonathan Levin, *Peer-to-Peer Markets* 1 (Nat’l Bureau of Econ. Research, Working Paper No. 21496, 2015), <http://www.nber.org/papers/w21496.pdf>.

600 peer-to-peer startups.”³⁸ One expert has developed an infographic “honeycomb” describing 16 broad sectors and approximately 40 subsectors in which sharing economy platforms operate, and specifying the location of 280 platforms within these categories.³⁹ His research reveals that the sharing economy model now extends to small businesses or individuals providing a wide range of goods and services, including, but by no means limited to: preparing meals, shipping or storing goods, renting tools or clothing, performing household tasks, providing health services, ordering custom-made goods, and obtaining funding for projects. And the expansion continues, as new platforms arise, each vowing to become the “Uber” or “Airbnb” of some other market sector.⁴⁰

Many Workshop participants described how entrepreneurial activity in the sharing economy generally enhances competition and consumer welfare by enabling the entry of new sources of supply. Some of these new suppliers have provided distinctive products and services, greater convenience, or lower prices that consumers value. However, their entry has also raised concerns regarding their potential impact on consumer protection, safety, and other public goals.⁴¹ State and local lawmakers and regulators face challenges as they seek to balance these competing considerations and also assess the ability of platforms to provide mechanisms for addressing many of the regulatory concerns. They often must resolve competing claims from incumbents arguing that they should apply existing regulations to new entrants, and from entrants arguing that features of their innovative business models lessen the need for traditional regulations.

The Commission is uniquely qualified to study the inherent tension between the potential competitive benefits that sharing economy business models may provide and the potential consumer harms they may pose. As Chairwoman Edith Ramirez said, “The Federal Trade Commission’s dual mission to promote competition and protect consumers makes the agency particularly well suited to consider the various issues raised by the sharing economy.”⁴² As part of its advocacy on competition matters, the Commission has sent advocacy letters to four jurisdictions considering regulatory measures affecting platform-based local transport services,⁴³ counseling regulators to avoid actions that “are likely

³⁸ Workshop Tr. at 23 (Chiara Farronato).

³⁹ Jeremiah Owyang, *Honeycomb 3.0: The Collaborative Economy Market Expansion*, JEREMIAH OWYANG BLOG (Mar. 10, 2016), <http://www.web-strategist.com/blog/2016/03/10/honeycomb-3-0-the-collaborative-economy-market-expansion-sxsw/>. A previous version of Owyang’s Honeycomb with 12 sectors was posted in December 2014 and referenced at the Workshop. See Jeremiah Owyang, *Collaborative Economy Honeycomb 2 – Watch it Grow*, JEREMIAH OWYANG BLOG (Dec. 7, 2014), <http://www.web-strategist.com/blog/2014/12/07/collaborative-economy-honeycomb-2-watch-it-grow/>.

⁴⁰ Workshop Tr. at 169 (Adam Thierer) (“look at a service like Shuttle, which is trying to be Uber for kids”); Geoffrey A. Fowler, *There’s an Uber for Everything Now*, WALL ST. J. (May 5, 2015, 1:09 PM), <http://www.wsj.com/articles/theres-an-uber-for-everything-now-1430845789> (“There’s an Uber for Everything Now: Apps do your chores: shopping, parking, cooking, cleaning, packing, shipping and more.”); Laura Entis, ‘We’re the Uber of X!-,’ ENTREPRENEUR (Aug. 12, 2014), <http://www.entrepreneur.com/article/236456>.

⁴¹ See generally *infra* Chapter 3.

⁴² Edith Ramirez, Chairwoman, Fed. Trade Comm’n, Keynote Remarks at Fordham Law School 42nd Annual Conference on International Antitrust Law and Policy 2 (Oct. 2, 2015), https://www.ftc.gov/system/files/documents/public_statements/810851/151002fordhamremarks.pdf. See also Terrell McSweeney, Commissioner, Fed. Trade Comm’n, *Disruptors, Data & Robots: Competition Enforcement in the Digital Economy* 2-3, Chatham House Conference (Jun. 23, 2016), https://www.ftc.gov/system/files/documents/public_statements/966493/mcsweeney - chatham house keynote 6-23-16.pdf.

⁴³ See *infra* Chapter 3, Section I.

to hinder competition and are either not necessary or broader than necessary to achieve legitimate consumer protection and other public policy goals.”⁴⁴

This Introduction highlights the Commission’s interest in the sharing economy, but it should also clarify what is not driving the Commission’s interest. As Commissioner Maureen Ohlhausen emphasized in her introductory remarks, the Workshop was not intended as a precursor to law enforcement actions, but rather as an opportunity to learn more about this evolving set of business models and the issues they present.⁴⁵ Thus, this report aims to synthesize and present the information provided by the panelists at the Workshop and in the public comments submitted, not to identify areas for Commission investigation and enforcement. It seeks to aid the Commission, as well as regulators, consumer groups, platforms, participants using the platforms, incumbent firms, and others, as they address the complex issues raised by commercial activity conducted over sharing economy platforms.

In addition, this report focuses on questions directly relevant to the Commission’s responsibilities to protect consumers and promote competition, and does not address some of the policy issues raised by the sharing economy that are not within the Commission’s areas of expertise and authority. Two issues not covered in the report are worth noting. First, one of the most contentious legal and policy debates in the sharing economy concerns whether workers supplying services over platforms should be viewed as employees or as independent contractors, and the differences in legal protections and benefits associated with those classifications.⁴⁶ Government officials and experts discussed whether sharing economy workers fit well within the existing employee/independent contractor dichotomy, and whether to consider reforms to labor laws.⁴⁷ Second, concerns have been raised that some participants on Airbnb discriminate against African Americans,⁴⁸ spurring Airbnb to address the issue.⁴⁹

⁴⁴ Ramirez, *supra* note 42, at 6. *See infra* Chapter 3, Section I (describing these letters in more detail).

⁴⁵ Workshop Tr. at 6 (Ohlhausen).

⁴⁶ *See, e.g.*, O’Connor v. Uber Techs., 82 F. Supp. 3d 1133 (N.D. Cal. 2015) (denying Uber’s summary judgment motion on this issue); Cotter v. Lyft, Inc., 60 F. Supp. 3d 1067 (N.D. Cal. 2015) (denying parties’ cross-motions for summary judgment on this issue); Mike Isaac & Noam Scheiber, *Uber Settles Cases With Concessions, but Drivers Stay Freelancers*, N.Y. TIMES, (Apr. 21, 2016), <http://www.nytimes.com/2016/04/22/technology/uber-settles-cases-with-concessions-but-drivers-stay-freelancers.html>; Justin Fox, *Uber and the Not-Quite-Independent Contractor*, BLOOMBERG (June 23, 2015), <https://www.bloomberg.com/view/articles/2015-06-23/uber-drivers-are-neither-employees-nor-contractors>. These concerns were discussed in several of the comments received by the Commission. *See, e.g.*, Nat’l Employment Law Project Comment; Jobs With Justice Comment; P’ship for Working Families Comment.

⁴⁷ *See, e.g.*, Rachel Weiner & Lydia DePillis, *How Congress Can Make Life Better for Uber Drivers and Bike Messengers*, WASH. POST (June 3, 2016), https://www.washingtonpost.com/local/virginia-politics/how-congress-can-make-life-better-for-uber-drivers/2015/06/03/621d89f4-09f8-11e5-9e39-0db921c47b93_story.html; Joseph V. Kennedy, Info. Tech. & Innovation Found., *Three Paths to Update Labor Law for the Gig Economy* (Apr. 2016), <http://www2.itif.org/2016-labor-law-gig-economy.pdf>.

⁴⁸ *See, e.g.*, Selden v. Airbnb, Inc., No. 16-cv-00933, 2016 U.S. Dist. LEXIS 150863 (D.D.C. Nov. 1, 2016) (granting Airbnb’s motion to compel arbitration of plaintiff’s race discrimination claims); Benjamin G. Edelman, Michael Luca & Dan Svirsky, *Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment 1* (Harvard Bus. Sch., Working Paper No. 16-069, 2016), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2701902 (finding that “applications from guests with distinctively African-American names are roughly 16% less likely to be accepted than identical guests with distinctively White names”); Benjamin G. Edelman & Michael Luca, *Digital Discrimination: The Case of Airbnb.com* (Harvard Bus. Sch., Working Paper No. 14-054, 2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2377353 (finding that non-black hosts using Airbnb in New York City charge about 12% more than black hosts for the equivalent rental).

Moreover, while sharing economy platforms are active in a wide range of sectors, a one-day Workshop can cover only certain parts of the sharing economy. This report focuses primarily on the short-term lodging and for-hire transportation service sectors. It is in these sectors that the sharing economy’s disruptive innovation has arguably had the greatest economic impact to date, and in which the debate has been most robust on how to balance the potential benefits of disruptive innovation and the potential need for regulatory action to promote consumer protection and other public goals. The report occasionally refers to platforms in other sectors, *e.g.*, eBay and TaskRabbit, but those were not examined extensively. Platforms in other sectors may operate differently, as some of the comparisons between Uber and Airbnb in the report illustrate, and thus separate study of platforms in other sectors would further increase knowledge and understanding of the sharing economy. Due to differences in commercial activity across sectors, and the near-certainty that sharing economy platforms will continue to evolve over time, care should be taken when extrapolating lessons from the study of platforms in one sector to platforms in other sectors.⁵⁰

We hope that this report can serve as part of an ongoing conversation about the sharing economy.

⁴⁹ See *Fighting Discrimination and Creating a World Where Anyone Can Belong Anywhere*, AIRBNB ACTION, <https://www.airbnbaction.com/fighting-discrimination-and-creating-a-world-where-anyone-can-belong-anywhere/>; Katie Benner, *Airbnb Adopts Rules to Fight Discrimination by Its Hosts*, N.Y. TIMES (Sept. 8, 2016), <http://www.nytimes.com/2016/09/09/technology/airbnb-anti-discrimination-rules.html>;

⁵⁰ See generally Farhad Manjoo, *The Uber Model, It Turns Out, Doesn’t Translate*, N.Y. TIMES (Mar. 23, 2016), <http://www.nytimes.com/2016/03/24/technology/the-uber-model-it-turns-out-doesnt-translate.html> (opining that the Uber model may be difficult to apply to other sectors).

Chapter One: Economics of Sharing Economy Marketplaces

I. Introduction

Over the last decade, sharing economy platforms such as Uber and Airbnb have made a dramatic entrance into everyday economic activity.⁵¹ Entrepreneurs have established a large number of platforms in a wide range of sectors during that span,⁵² and many more are on the way.⁵³

Although economists have been studying multi-sided platforms since the early 2000s,⁵⁴ economic literature is only beginning to examine the rise of the sharing economy.⁵⁵ The Workshop provided an opportunity for leading economists to shed some light on the complex economics of the sharing economy, furthering understanding and likely spurring additional research. Sections II and III of this Chapter look at the key characteristics of sharing economy platforms and the major market design issues they face. Section IV discusses various ways in which sharing economy platforms can improve welfare by enabling entry by suppliers, who potentially have lower costs or superior service compared to market incumbents, and by facilitating their transactions with consumers. Section V explores some of the competition issues that may arise as the sharing economy matures.

II. Key Characteristics of Sharing Economy Marketplaces

Sharing economy sites enable “the emergence of marketplaces, . . . meeting point[s] for supply and demand, making it easier for almost anyone to become a supplier of goods and services in exchange for money.”⁵⁶ Broadly speaking, “the role of peer-to-peer platforms [is] to connect individuals who want to trade assets or services.”⁵⁷ These platforms enable large decentralized groups of participants to transact with each other effectively and efficiently. They are reshaping the provision of some services and products, bringing disruptive innovation to a variety of sectors.⁵⁸

⁵¹ See *supra* Introduction, at text accompanying notes 23-25.

⁵² See Owyang, *Honeycomb 3.0*, *supra* note 39.

⁵³ See Workshop Tr. at 23 (Chiara Farronato).

⁵⁴ See, e.g., DAVID S. EVANS & RICHARD SCHMALENSEE, *MATCHMAKERS: THE NEW ECONOMICS OF MULTISIDED PLATFORMS* 14-15 (2016).

⁵⁵ See, e.g., *id.*; Einav, Farronato & Levin, *supra* note 37; John J. Horton & Richard J. Zeckhauser, *Owning, Using and Renting: Some Simple Economics of the “Sharing Economy”* (Nat’l Bureau of Econ. Research, Working Paper No. 22029, 2016), <http://www.nber.org/papers/w22029.pdf>. Scholars have studied a few such platforms, particularly eBay, for some time. The Department of Commerce recently published a study of this space, referring to platforms as “digital matching firms.” U.S. Dept. of Commerce Issue Brief, *supra* note 13.

⁵⁶ CATALAN COMPETITION AUTH., *supra* note 12, at 2.

⁵⁷ See Workshop Tr. at 23 (Chiara Farronato). See also SUNDARARAJAN, *supra* note 12, at 26-27 (describing economic characteristics of the sharing economy).

⁵⁸ For a discussion of some of the benefits of sharing economy platforms, see U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 11-14.

Platforms attract buyers and sellers by providing beneficial opportunities for transactions. To be attractive, potential trades between parties must offer gains, net of the costs of making a match and completing a transaction, that are superior to available alternatives.⁵⁹ Effective sharing economy platforms leverage technology to reduce transaction costs associated with matching dispersed buyers and sellers.

A sharing economy marketplace centers around three principal players – the platform, which provides the marketplace, and the buyers and sellers who transact on it.⁶⁰ Suppliers participating on the platform own the good to be sold (or rented) or control the assets needed to provide the service.⁶¹ They are typically individuals or small entities, and so transactions are characteristically peer-to-peer, *i.e.*, “the supplier may be someone similar to the consumer.”⁶² A sharing economy platform operates a marketplace, “match[ing] the[] individuals who own things with consumers who want to access them.”⁶³ It performs transactional services for the consumers and suppliers who transact in the marketplace,⁶⁴ for which it may receive a fee or otherwise obtain compensation. All platform participants – both consumers and suppliers – are therefore consumers of services supplied by the platform.

Sharing economy platforms thus contrast with more common, single-sided retail platforms.⁶⁵ For example, Airbnb provides a market in which hosts generally offer a single residence, or a part of it, to individuals needing short-term accommodations. In contrast, hotel websites such as Marriott.com or Hilton.com directly and simultaneously offer numerous rooms to travelers. Similarly, eBay provides a marketplace platform over which participating businesses or individuals conduct auctions or other sales transactions with each other, while internet retailer platforms (such as Apple’s or Best Buy’s internet platforms) generally act as retailers, making direct sales to customers.⁶⁶ Sharing economy platforms also contrast with multi-sided platforms that support transactions in the traditional economy.⁶⁷

⁵⁹ See Workshop Tr. at 23 (Chiara Farronato).

⁶⁰ See Einav, Farronato & Levin, *supra* note 37, at 2; CATALAN COMPETITION AUTH., *supra* note 12, at 2-3. There may be a number of different players whose activities relate to the sharing economy marketplace in important ways, such as companies that provide services to sharing economy suppliers that help them market their goods and services, fulfill their contracts, or otherwise run their businesses. See, e.g., Owyang, *Honeycomb 3.0*, *supra* note 39 (listing approximately 280 platforms serving segments in 40 sectors). See also Intuit Comment; Matt Villano, *What’s Next for the Sharing Economy?*, Entrepreneur (Nov. 21, 2014), <https://www.entrepreneur.com/article/239233> (“The next wave of opportunities in businesses will be companies that look at how we support development of the sharing economy . . .”) (quoting Professor Arun Sundararajan).

⁶¹ See Workshop Tr. at 24 (Joshua Gans).

⁶² CATALAN COMPETITION AUTH., *supra* note 12, at 2.

⁶³ Workshop Tr. at 24 (Joshua Gans).

⁶⁴ See generally *infra* Section III (describing some of the services platforms provide to participants).

⁶⁵ For a discussion of the choice between operating a marketplace and being a reseller, see Andrei Hagiu & Julian Wright, *Do You Really Want to Be an eBay?*, 91 HARV. BUS. REV. 102 (2013), <https://hbr.org/2013/03/do-you-really-want-to-be-an-ebay>.

⁶⁶ Amazon is a very large online retailer selling directly to customers but, through its “Amazon Marketplace” service, also is a platform over which third parties sell products.

⁶⁷ Credit card companies like Visa or American Express, or mobile payment providers like Square, are multi-sided platforms that facilitate payments for transactions between buyers and sellers.

The individual suppliers using sharing economy platforms frequently employ their existing personal assets, in some cases dramatically reducing their need to incur fixed costs.⁶⁸ Sharing economy platforms can enable individuals and small entities to enter a market and supply customers they would otherwise not be able to reach in a cost-effective way. In some cases, they may bring about a “gale of creative destruction” envisioned by Schumpeter, transforming markets.⁶⁹ In other cases, they may simply offer a viable competitive alternative to existing suppliers. Platforms may enable transactions for which there previously was no market,⁷⁰ or may serve existing markets in novel ways, meeting unmet demand or displacing sales previously made by existing suppliers.⁷¹

III. Designing Sharing Economy Marketplaces

Successful platforms must design and maintain efficient markets that enable both buyers and sellers to capture gains from trade.⁷² Parties will not participate in a platform unless they expect the benefits to outweigh the costs of finding a transaction partner and completing the transaction. Thus, platforms must efficiently match suppliers and buyers for whom there are substantial gains from trade, without imposing transactions costs that undermine these gains.

One panelist laid out “three principles of market design,” which he attributed to Al Roth, Nobel Laureate in Economics: markets will generally be “successful if they are liquid”; if they enable matchmaking between buyers and sellers in real time; and “if the transactions in them are safe.”⁷³ Liquidity requires that markets be thick, *i.e.*, that there be substantial numbers of potential transaction partners on both sides of the market, and likely leads to two-sided network effects on these platforms. Matchmaking requires that participants be able to search among potential transaction partners, find suitable transaction partners, and enter into transactions. Safety, as a general matter, implies a degree of confidence that the transaction will be completed as expected, minimizing potential harms.⁷⁴ The design challenges facing sharing economy platforms vary with conditions in the particular sector in which they operate. For example, as the number of product attributes a buyer considers increases, the effort a buyer may expend for searching and matching may also increase. One panelist explained that matching poses a particular challenge “when people have very heterogeneous preferences and the set of products is really large, diverse, and . . . unstructured.”⁷⁵ When consumer preferences are relatively uniform, matching may be simpler.

⁶⁸ See *infra* Section IV.

⁶⁹ SCHUMPETER, *supra* note 1, at 84. See also EVANS & SCHMALENSSEE, *supra* note 54, at 49 (peer-to-peer matchmaking platforms are “the forces behind a gale of ‘creative destruction’ that is revolutionizing economies worldwide”) (quoting Schumpeter).

⁷⁰ Workshop Tr. at 11 (Liran Einav).

⁷¹ Sundararajan, *supra* note 12, 121-23.

⁷² See Einav, Farronato & Levin, *supra* note 37, at 4-11.

⁷³ Workshop Tr. at 24-25 (Joshua Gans); see also Alvin E. Roth, *What Have We Learned from Market Design?*, 9 INNOVATION POL’Y & ECON. 79 (2009), <http://www.journals.uchicago.edu/doi/pdfplus/10.1086/592422>.

⁷⁴ Chapter 2 discusses various trust mechanism that platforms may use to address safety concerns.

⁷⁵ Workshop Tr. at 14 (Liran Einav).

Successful sharing economy platforms generally enable access by modern digital communications technology, running mobile apps to connect buyers and sellers to platforms where they can find matches effectively and cheaply.⁷⁶ Panelists credited widespread connectivity and the spread of mobile internet and GPS-enabled devices for participants’ ability to transact efficiently and “in real time.”⁷⁷ The growth in computational power and machine learning may also be key in the sharing economy’s success.⁷⁸ As one commenter noted, sharing economy software apps play an essential role in enabling “the exchange of goods and services at a scale never seen before” by “solving complex matching problems.”⁷⁹

A. Thick Markets

A successful sharing economy platform requires that both sides of the market be “thick,”⁸⁰ *i.e.*, that there are substantial numbers of buyers and sellers, so that each participant has a significant number of potential matches. Adding buyers gives sellers greater incentive to participate in a platform; conversely, adding sellers gives buyers greater incentive to participate.⁸¹ This results in two-sided network effects, which are often found in two-sided platform marketplaces outside the sharing economy.⁸²

Therefore, a platform seeking to launch a successful marketplace faces a “chicken-and-egg” problem. It needs a substantial number of buyers to attract sellers and, at the same time, a substantial number of sellers to attract buyers.⁸³ To promote participation by all sides, platforms must be cognizant of the prices paid by participants on each side of the market, often subsidizing the participation by one group.⁸⁴ For example, to attract more drivers, Uber might increase its compensation per ride. This would, however, put upward pressure on prices paid by passengers, dampening their demand. According to one panelist, Uber has at times addressed this dilemma when beginning to offer service in a city by charging riders very low prices (to attract buyers) while allowing drivers to collect the entire fare (to attract sellers), effectively forgoing a profit for itself. Once numerous users have joined both sides of the

⁷⁶ *Id.* at 11 (“the idea of using technology to facilitate better matching of sellers and buyers” underlies the success of the sharing economy). For more extensive discussions of the technological forces fueling the growth of the sharing economy, *see* EVANS & SCHMALENSEE, *supra* note 54, at 39-45 and SUNDARARAJAN, *supra* note 12, at 52-65.

⁷⁷ Workshop Tr. at 12, 30 (Liran Einav). *See also id.* at 84 (Arun Sundararajan) (the “wave of peer-to-peer markets was really enabled” by the spread of mobile computing capacity with internet access and geolocation).

⁷⁸ *Id.* at 29 (Glen Weyl).

⁷⁹ Application Developers All. Comment at 1.

⁸⁰ Workshop Tr. at 21 (Glen Weyl) (emphasizing “the benefits that come to consumers from having a thick market”).

⁸¹ *See id.* at 14 (Liran Einav).

⁸² For discussions of such effects, *see, e.g.*, David S. Evans & Richard Schmalensee, *Industrial Organization of Markets with Two-Sided Platforms*, 3 COMPETITION POL’Y INT’L 151, 153 (2007); Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645 (2006). *See also* Arun Sundararajan, *Network Effects*, @DIGITALARUN, <http://oz.stern.nyu.edu/io/network.html>.

⁸³ Workshop Tr. at 20 (Glen Weyl); EVANS & SCHMALENSEE, *supra* note 54, at 29-30.

⁸⁴ EVANS & SCHMALENSEE, *supra* note 54, at 85-100.

platform, Uber can raise the fares and revert to receiving its fee.⁸⁵ Alternatively, for-hire transportation service platforms may cut fares to compete with each other or to respond to demand conditions.⁸⁶

“The heterogeneity of the goods” that buyers may desire and suppliers may offer can also complicate efforts to achieve thick markets.⁸⁷ Heterogeneity reflects consumers’ differing preferences for varying characteristics of the goods and services, and the corresponding variety of goods and services offered by suppliers. Platforms help consumers locate suppliers with offerings that meet their preferences, for example, by providing search engines consumers can use to select from an array of diverse suppliers.⁸⁸

However, when products exhibit a high degree of heterogeneity, a platform may have difficulty providing buyers and sellers with a sufficiently thick market for the full range of products and services when and where desired.⁸⁹ For example, each Uber rider would like drivers available when and where he or she starts the app,⁹⁰ but some may prefer SUV service while others may want the cheapest vehicle available. On Airbnb, renters are usually interested in a variety of options for lodgings – different cities, different price points, different amenities.

B. Efficient Search and Matching

Simply having large numbers of potential buyers and sellers is not enough. Rather, parties must be able to search among potential transaction partners, find a match, and complete a transaction,⁹¹ encountering “search and matching frictions” that make transactions costly.⁹² Indeed, in some contexts,

⁸⁵ Workshop Tr. at 20-21 (Glen Weyl).

⁸⁶ Brian Solomon, *Is Uber Trying to Kill Lyft with a Price War?*, FORBES (Jan. 25, 2016), <http://www.forbes.com/sites/briansolomon/2016/01/25/is-uber-trying-to-kill-lyft-with-a-price-war/> (discussing Uber’s decision to cut prices in over 100 U.S. and Canadian cities, and Lyft’s decision to “follow suit”); James Covert, *Lyft’s Insane Fare Cuts Will Make You Think Twice About Uber*, N.Y. POST (May 23, 2016), <http://nypost.com/2016/05/23/lyfts-insane-fare-cuts-will-make-you-think-twice-about-uber/> (describing Lyft’s decision to decrease prices in New York City to increase ridership). Some drivers have protested the fare decreases, *see, e.g.*, Billy Utt, *Austin Uber Drivers Are Planning a Valentine’s Day Slowdown*, AUSTIN INNO (Feb. 10, 2016, 8:41 AM), <http://austininno.streetwise.co/2016/02/10/uber-rates-in-austin-drivers-plan-valentines-day-protest/>, but the companies have implemented measures such as reducing their charges.

⁸⁷ Workshop Tr. at 37-38 (Glen Weyl); *id.* at 22 (Chiara Farronato) (focusing on “differences and heterogeneity driving the success of platforms”).

⁸⁸ On the other hand, a specialized platform that focuses on serving a particular segment of the market may be most effective in serving that group. For example, lodging or local transport platforms can be designed to serve a segment of demand with specific preferences rather than to serve broad heterogeneous preferences.

⁸⁹ EVANS & SCHMALENSEE, *supra* note 54, at 29-30 (making a market “thick” requires not just “numbers,” but also “getting more participants on each side with whom participants on the other side want to interact”).

⁹⁰ Workshop Tr. at 14 (Liran Einav).

⁹¹ *See, e.g.*, Joseph V. Kennedy, The Info. Tech. & Innovation Found., *Why Internet Platforms Don’t Need Special Regulation* 3 (Oct. 2015), <http://www2.itif.org/2015-internet-platforms.pdf> (“common types of transaction costs facing a seller of wheat include searching for someone willing to buy wheat, negotiating a fair price and terms of delivery, and enforcing the agreement in case of any dispute”).

⁹² Workshop Tr. at 23-24 (Chiara Farronato); *id.* at 15 (Liran Einav).

a buyer will need to use a platform to discover the type of product or service he or she wants.⁹³

The willingness of parties to incur search costs will “depend on the value generated once the transaction takes place.”⁹⁴ Search and matching processes seek to balance the benefits of more extensive search with the costs it imposes on the platform and participants. One panelist described the market design problem facing platforms as involving “tradeoff[s]” between facilitating more precise results at higher cost versus facilitating less precise results at lower cost.⁹⁵ Platforms can make search less costly and more effective by, among other things, helping sellers highlight product attributes important to buyers, developing effective search tools for sifting through listings, and easing the completion of a transaction.⁹⁶

Efficient search and matching requires an appropriate definition of the product or service to be bought and sold over the platform. Heterogeneity of the service or product presents a challenge to the platform in categorizing the types of products or services offered.⁹⁷ A narrow definition of the product may result in searches that exclude similar products of interest to the consumer, while a broad definition may include so many different types of products that comparison and selection become difficult.⁹⁸

A platform’s approach to product definition, search, pricing, and matching will be contingent on the nature of the market and participants’ differing needs. For example, for-hire transport platforms, such as Uber and Lyft, generally define the service as a ride from one point to another accomplished as quickly as possible.⁹⁹ These platforms take a request for a ride, make a match with a nearby driver, and put the parties in contact with each other. There is limited opportunity for customer choice among drivers and an algorithm generally sets the ride price, without input by the parties.

In contrast, Airbnb allows for considerable differentiation among the properties offered by hosts over the platform.¹⁰⁰ Accommodations and the tastes of prospective renters can vary by location, type (house or apartment), size, cost, and many other criteria. Hosts provide information on various aspects of the unit they offer for rent through descriptions and pictures accompanying the listing, and Airbnb provides prospective renters with a database of listings and tools for conducting searches. Guests can browse through the listings, contact potential matches, and engage with hosts in further exploration and negotiation.¹⁰¹ The search and selection process for Airbnb rentals is generally considerably more

⁹³ *Id.* at 15 (Liran Einav) (in some cases “people actually don’t know what they want” and so the “platform is in the business of guiding people”).

⁹⁴ *Id.* at 23 (Chiara Farronato).

⁹⁵ *Id.* at 15-16 (Liran Einav).

⁹⁶ *See also* Einav, Farronato & Levin, *supra* note 37, at 4-6.

⁹⁷ Workshop Tr. at 23-24 (Chiara Farronato).

⁹⁸ *Id.* at 16 (Liran Einav) (“If you define the product too narrowly, then ... [participants can’t] search for things that are similar. If you define too coarse, then ... [products] vary in so many dimensions that it’s hard to compare and contrast.”).

⁹⁹ Other aspects – driver qualifications, insurance, ride quality – may be addressed by the platform by provisions applying to all participating drivers, ensuring some reasonable quality threshold for all participants.

¹⁰⁰ For a detailed discussion of Airbnb’s approach to tackling this problem, *see* Andrey Fradkin, *Search Frictions and the Design of Online Marketplaces* (Sept. 30, 2015) (unpublished manuscript), <http://andreyfradkin.com/assets/SearchFrictions.pdf>. In addition, speed of matching may be less critical for certain services.

¹⁰¹ *See* Workshop Tr. at 23 (Chiara Farronato).

involved than the process for arranging Uber rides, but the parties are usually willing to expend the extra effort because of the potentially higher value generated by finding better transaction options for a rental as opposed to a ride.

TaskRabbit provides an example of a platform that adjusted its approach to matching buyers and sellers based on experience. The platform enables people to hire short-term or temporary workers for specific tasks, such as assembling furniture or cleaning homes. TaskRabbit initially defined product categories narrowly based on the individual tasks, with the price and the match determined by an auction that some participants viewed as complicated and time-consuming.¹⁰² Because this proved costly and inefficient, TaskRabbit changed its platform design so that users can post a particular task, see information on workers (“Taskers”) that TaskRabbit identifies as good matches, choose a worker, and schedule the job.¹⁰³ Similarly, transactions on eBay have increasingly shifted from peer-to-peer auctions to fixed price sales.¹⁰⁴ One explanation for this change is that its buyers found the auction process created friction, and professional sellers who made up an increasing portion of the sales on the platform could determine the value of their merchandise without auctions.

C. Confidence in Transacting

Absent efforts by the platform to promote trust, participants on both sides of sharing economy transactions would have little information about each other and therefore might lack confidence that the other party would perform the transaction properly. Users might be concerned that they would lose their investment in the transaction (the buyers’ payments or the sellers’ cost of supply) or suffer collateral harm or even damage to person or property. Such concerns can inhibit participation on a platform. As discussed extensively in Chapter 2, to encourage transactions, platforms take measures to promote users’ trust and confidence that transactions will be completed successfully and that harms will be prevented or covered. These measures often include the adoption of reputation systems based on ratings of participants’ previous transactions on the platform, the provision of guarantees or insurance to cover bad outcomes, or the screening of participants before permitting them to participate.

IV. Potential Gains from Trade from Platform-Based Supply

Platforms offer significant gains from trade. They can greatly reduce transaction costs faced by small, decentralized parties – individuals or small entities – making it possible for them to enter a market and provide a service.¹⁰⁵ Platforms can also facilitate entry by assembling and providing information

¹⁰² See *id.* at 16 (Liran Einav).

¹⁰³ See, e.g., Casey Newton, *TaskRabbit is Blowing Up Its Business Model and Becoming the Uber for Everything*, THE VERGE (June 17, 2014, 10:01 AM), <http://www.theverge.com/2014/6/17/5816254/taskrabbit-blows-up-its-auction-house-to-offer-services-on-demand>; *How TaskRabbit Works*, TASKRABBIT, <https://www.taskrabbit.com/how-it-works>.

¹⁰⁴ Workshop Tr. at 31 (Liran Einav); *id.* at 34 (Chiara Farronato). See also *Economists May Idolise Auctions, but Most People Do Not*, ECONOMIST (Aug. 29, 2015), <http://www.economist.com/news/finance-and-economics/21662595-economists-may-idolise-auctions-most-people-do-not-block>.

¹⁰⁵ SARAH A. DONOVAN ET AL., CONG. RESEARCH SERV., R44365, WHAT DOES THE GIG ECONOMY MEAN FOR WORKERS?, at summary (2016), <https://www.fas.org/sgp/crs/misc/R44365.pdf> (“coordination of jobs through an on-demand company reduces entry and operating costs for providers and allows workers’ participation to be more transitory”).

needed to begin service, supplying necessary inputs (e.g., insurance), and taking steps to reduce other challenges facing small entities.

Moreover, small producers operating on sharing economy platforms may have cost advantages. Several panelists pointed out that, in some cases, sharing economy suppliers have very low fixed costs.¹⁰⁶ Indeed, the sharing economy has seen its most pronounced growth in sectors in which suppliers make significant use of an otherwise underutilized personal asset – either renting the asset or providing a service using the asset. Because they do not have to purchase this asset specifically for commercial purposes, such suppliers can dramatically reduce their capital costs and entry risk.¹⁰⁷ Furthermore, sharing economy platforms generally do not incur such fixed costs, since the supplier and not the platform is responsible for supplying the good or service.

For example, a driver on Lyft or Uber can use his personal car during his free time to provide for-hire transport on the platform. He or she need not acquire a separate vehicle for commercial activity. Similarly, a host on Airbnb can rent her personal residence or part of it as short-term lodging. In these cases, suppliers are avoiding substantial capital investments because they can employ underutilized personal assets they already possess.¹⁰⁸ As a result, many sharing economy suppliers may have lower fixed costs than the traditional incumbents with whom they compete, which can make entry easier.¹⁰⁹ Sharing economy suppliers do, of course, incur variable costs, including expenses from adapting their personal assets to commercial use. For example, Airbnb hosts may need to prepare the unit each time it is rented, exchange keys and information, and engage in other miscellaneous tasks.

Another reason new platform suppliers’ costs of entry and operation are often lower is that operating on platforms may allow these suppliers to bypass or navigate regulatory requirements. Reduction of entry costs through regulatory avoidance could be beneficial if the regulations needlessly impose significant barriers to entry and costs,¹¹⁰ but could be harmful if the regulations are necessary to serve an important public goal such as protecting consumers from harm.¹¹¹ To the extent that platforms can address the goals of regulations through trust mechanisms, discussed in Chapter 2, they may reduce

¹⁰⁶ See, e.g., Workshop Tr. at 13 (Liran Einav) (fixed costs in the sharing economy are “actually almost nothing”).

¹⁰⁷ Tim Worstall, *Uber Reduces Capital Concentration and Increases the Number of Capitalists*, FORBES (Aug. 2, 2015, 6:09 AM), www.forbes.com/sites/timworstall/2015/08/02/uber-reduces-capital-concentration-and-increases-the-number-of-capitalists/ (“the sharing economy is allowing people to turn consumption goods into capital goods”). See also SUNDARARAJAN, *supra* note 12, at 127 (“peer-to-peer rental markets introduce new levels of adaptability and flexibility that enable people to take new economic risks”).

¹⁰⁸ Workshop Tr. at 30 (Chiara Farronato) (suppliers on peer-to-peer platforms “are kind of leveraging underused assets or time”).

¹⁰⁹ Of course, they may experience some increased costs associated with utilizing the asset more intensely, but these expenses may be low relative to the cost of purchasing the asset and do not require up-front payments. In addition, those who purchase assets, such as high-end cars, in order to provide services on platforms, do incur upfront capital costs and face risks of loss.

¹¹⁰ Workshop Tr. at 12 (Liran Einav); TechNet Comment at 3 (describing burdensome and unnecessary administrative regulations and restrictions blocking provision of service at airports).

¹¹¹ See, e.g., Benjamin G. Edelman & Damien Geradin, *Efficiencies and Regulatory Shortcuts: How Should We Regulate Companies Like Airbnb And Uber?*, 19 STAN. TECH. L. REV. 293, 309-22 (2016), <https://journals.law.stanford.edu/sites/default/files/stanford-technology-law-review/print/2016/04/19-2-4-edelman-geradin-final.pdf> (outlining reasons why regulation may be necessary). See generally *infra* Chapter 4, Section IV.

the need for regulatory action. Chapters 3 and 4 address the debate over regulating sharing economy transactions generally and in the lodging and for-hire transportation service sectors specifically.

Platforms may also provide valuable flexibility to suppliers in choosing when to supply services, reducing the opportunity cost of working and increasing efficiency.¹¹² For example, many Uber and Lyft drivers work part-time to augment their income from other work; flexibility can help them juggle driving with their competing commitments, thereby lowering the opportunity cost of driving.¹¹³ Similarly, Airbnb hosts can choose to rent when they have spare space or can easily find alternate accommodations. One panelist pointed out that this cost structure and flexibility may be used to advantage in industries where there can be sudden changes in demand.¹¹⁴ For example, Airbnb hosts can rent their residences on dates when demand is high.¹¹⁵ Similarly, Uber and Lyft drivers can schedule work when the demand for rides is high.

V. Competition Issues in the Sharing Economy

The Workshop panel discussed several ways in which the sharing economy may evolve and the policy issues these developments might raise, while recognizing that predictive power is limited in light of the dynamic and innovative nature of these business models. This section first examines the potential for traditional and professional suppliers to expand their use of platforms, in competition with sharing economy suppliers. It then assesses the extent to which network effects may lead to platform dominance and the potential welfare consequences. Finally, it considers the complications that may arise if a platform vertically integrates, for example, by becoming a supplier as well, in competition with other suppliers using the platform.

A. Peer-to-Peer vs. Traditional Suppliers

Peer-to-peer suppliers may initially be the primary suppliers participating in sharing economy platforms but, over time, more professional suppliers may enter the market.¹¹⁶ Panelists cited eBay as an example. Suppliers on eBay were initially mostly individuals selling their own goods, but now small businesses are increasingly using eBay as a retail outlet.¹¹⁷ Another panelist similarly observed that while suppliers on platforms such as Uber and Airbnb are individuals “leveraging underutilized assets,” specialized professionals who view the activity as a primary source of income may enter over time.¹¹⁸

¹¹² See also U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 3 (platform participants “have flexibility in deciding their typical working hours”).

¹¹³ Jonathan Hall & Alan Krueger, *An Analysis of the Labor Market for Uber’s Driver-Partners in the United States* 17-19 (Princeton Univ. Indus. Relations Section Working Paper No. 587, 2015), <http://dataspace.princeton.edu/jspui/bitstream/88435/dsp010z708z67d/5/587.pdf>.

¹¹⁴ Workshop Tr. at 13 (Liran Einav).

¹¹⁵ See Einav, Farronato & Levin, *supra* note 37.

¹¹⁶ Workshop Tr. at 14 (Liran Einav). See also U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 5 (observing that digital matching firm service providers are not always amateurs, and some digital matching apps connect consumers with professionals).

¹¹⁷ Workshop Tr. at 31 (Liran Einav). See also *supra* p. 23.

¹¹⁸ Workshop Tr. at 30 (Chiara Farronato).

Indeed, some platforms may seek to include professional suppliers to expand their sales transaction volume. For example, professional drivers could make a platform more attractive to some passengers. In certain cities some taxi drivers have switched to Uber, and in others taxis can use the Uber app to find fares.¹¹⁹ In the short-term lodging rental market, a few hotels are beginning to list rooms on sharing economy platforms,¹²⁰ while some hosts reportedly are already using Airbnb to run commercial “rogue hotels” rather than to occasionally rent their own residence.¹²¹

B. Network Effects and Platform Dominance

As discussed in Section III.A above, sharing economy platforms are likely to exhibit two-sided network effects because increasing the number of buyers benefits (and attracts) sellers, while increasing the number of sellers benefits (and attracts) buyers. Two-sided network effects may enable a large platform to become dominant and insulated from competition from smaller platforms with fewer participants. Because they afford buyers and sellers fewer transacting options, smaller platforms may be far less attractive than a larger platform, limiting the extent to which they serve as viable competitive alternatives. Two-sided network effects could also create a barrier to entry, thereby protecting a dominant incumbent from new entry. A new platform would be unappealing to buyers unless it has attracted numerous participating sellers, and unappealing to sellers unless it has attracted numerous participating buyers. In other words, it must solve the chicken-and-egg problem noted earlier.¹²² One panelist expressed strong concerns that some existing platforms might achieve dominance, noting that some of their large market valuations might reflect expectations that they will achieve dominance.¹²³

Panelists, however, pointed to certain countervailing market forces that may reduce the ability of even a very large platform to exercise monopoly power and harm consumers. For one thing, participation on one platform need not preclude use of another. Buyers and sellers may find it easy to “multi-home” (*i.e.*, to participate on several platforms simultaneously).¹²⁴ As one panelist observed, such “platform-shopping disciplines the power of [] platforms.”¹²⁵ Moreover, suppliers may benefit

¹¹⁹ Nick Summers, *Uber Waives Fees to get London Taxi Drivers Using Its App*, ENGADGET (Feb. 9, 2016), <http://www.engadget.com/2016/02/09/uber-commission-fee-london-cabbies/>.

¹²⁰ See *infra* note 415 and accompanying text.

¹²¹ See *infra* text accompanying notes 460-464. For a formal model of some of the tensions that might pull peer-to-peer markets back towards more traditional models, see Andrei Hagiu & Julian Wright, *Multi-Sided Platforms* (Harv. Bus. School Working Paper No. 15-037, 2015), http://www.hbs.edu/faculty/Publication%20Files/15-037_cb5afe51-6150-4be9-ace2-39c6a8ace6d4.pdf.

¹²² Workshop Tr. at 20 (Glen Weyl) (“firms in these markets have traditionally been thought to have a hard time entering, as a result of these network effects”). See generally *United States v. Microsoft Corp.*, 253 F.3d 34, 55 (D.C. Cir. 2001) (en banc) (per curiam) (describing the “chicken-and-egg” problem in the context of computer operating systems platforms – software applications developers want to write programs that run on a platform with many users, while software applications users want to use a platform on which many programs already run).

¹²³ Workshop Tr. at 26-27, 32 (Joshua Gans).

¹²⁴ EVANS & SCHMALENSEE, *supra* note 54, at 28.

¹²⁵ Workshop Tr. at 26 (Joshua Gans); Kennedy, *supra* note 91, at 9 (explaining that buyers may have many options that effectively constrain the exercise of power). There are reports, however, of contractual arrangements that could inhibit the ability of TNC drivers to switch platforms. See, e.g., Ellen Huet, *Uber’s Clever, Hidden Move: How Its Latest Fare Cuts Can Actually Lock In Its Drivers*, FORBES (Jan. 9, 2016), <http://www.forbes.com/sites/ellenhuet/2015/01/09/ubers-clever-hidden->

from shifting to a different platform with relatively few suppliers: “To a driver, fewer competitors on the same platform means more profit.”¹²⁶ Other factors are the ability of platforms to facilitate entry through dynamic pricing strategies, *e.g.*, low initial prices followed by higher prices when the market matures,¹²⁷ and potential entry by competing platforms.¹²⁸

In addition, network effects may operate differently within a geographic market versus across geographic markets.¹²⁹ In particular, network effects may be strong within a geographic market where a platform is dominant, but have little impact in other geographic markets. For example, for basic labor services of the sort found on a platform such as TaskRabbit, prospective buyers may care only about the extent of participation by suppliers in their city. Such a platform may have a dominant share of suppliers and buyers in one city, but this may not exert any influence on participants’ choices of platforms in other geographic areas. In contrast, people seeking short-term lodging for vacations often will seek suppliers in various potential destinations.¹³⁰ Given such preferences, they would value a network that includes participating suppliers across geographic areas and network effects could extend beyond a single geographic area.

Moreover, as in other markets in which network effects are present, it is far from clear that a single, large platform harms consumers. Prices for the services of a dominant platform may be higher because of the lack of competition, but the thickness provided by a dominant marketplace may offer consumers and suppliers correspondingly greater value. As Chairwoman Ramirez observed regarding the sharing economy, “increased concentration does not always harm consumers; sometimes it benefits them, particularly where network externalities are substantial.”¹³¹ A panelist argued that platforms are not themselves participating as buyers or sellers in the marketplace, and therefore generally will have incentives, even if they are dominant, to maintain an efficient marketplace to maximize platform value in the long run.¹³²

Workshop participants also discussed how network effects influence views on consolidation of platforms and entry of new platforms. One panelist took the position that fragmentation of the market caused by too many entrants could harm consumers, by interfering with the development of thick

[move-how-fare-cuts-actually-lock-in-its-drivers/](#) (describing special benefits with requirements that would “make[] it difficult if not impossible to work for more than one platform at once, something many drivers do to stay busy”).

¹²⁶ Joshua Gans, *Is Uber Really in a Fight to the Death?*, DIGITOPOLY (Nov. 25, 2014), <http://www.digitopoly.org/2014/11/25/is-uber-really-in-a-fight-to-the-death/>. See also EVANS & SCHMALENSEE, *supra* note 54, at 29.

¹²⁷ Workshop Tr. at 20-21 (Joshua Gans).

¹²⁸ *Id.* at 34 (Chiara Farronato); see also *id.* at 33 (Glen Weyl).

¹²⁹ *Id.* at 20 (Glen Weyl).

¹³⁰ EVANS & SCHMALENSEE, *supra* note 54, at 11 (describing how Open Table, a restaurant reservation platform, found that network effects were strong within cities rather than across cities); SUNDARARAJAN, *supra* note 12, 119-20 (contrasting the network effects across cities for Uber and Airbnb).

¹³¹ Ramirez, *supra* note 42, at 5.

¹³² Workshop Tr. at 27-28 (Liran Einav). Another panelist suggested that large scale can enable a platform to better utilize trust mechanisms. See *id.* at 77 (Andrey Fradkin).

markets.¹³³ He argued that entry that “fragments the market” is bad, while “entry that really will displace” the incumbent should be encouraged.¹³⁴ Another panelist, however, identified “the continuous existence of potential [platform] entrants” as a particularly important source of competitive discipline.¹³⁵

C. Vertical Integration

As indicated above, most of the discussion at the Workshop viewed platforms as providing only transactional services, and not supplying products or services over the platform. However, the Workshop did examine the potential scenario in which, in addition to providing a marketplace, a platform also hired suppliers to serve customers on its platform.

As with vertical integration in most markets, vertical integration in the sharing economy could result in increased efficiency, but could in some circumstances result in anticompetitive foreclosure. Several panelists generally agreed that if platforms vertically integrated, providing a good or service as well as matching buyers and sellers, anti-competitive concerns could arise.¹³⁶ One noted that if a vertically integrated platform controls a large portion of supply, buyers might be unwilling to switch to other platforms if those platforms do not have enough participating suppliers.¹³⁷ However, another countered that vertical integration might still be desirable because of the benefits of having a “consolidated, dominant operator” in the transportation sector – a vertically integrated dominant platform might be better able to deal with negative externalities.¹³⁸ For example, a vertically integrated Uber might be better able to manage congestion, reducing transportation times in large cities.¹³⁹

Panelists also debated the plausibility of extensive vertical integration by a dominant platform. Some expressed doubt – one pointing out that these startups market themselves as marketplaces, which is their core competence.¹⁴⁰ Moreover, if they needed additional supply, they could attract more suppliers to join the platform rather than take on that function themselves.¹⁴¹ Another panelist found vertical integration more plausible.¹⁴² Finally, one panelist noted concerns that vertical restraints, such

¹³³ *Id.* at 21 (Glen Weyl). See also E. Glen Weyl & Alexander White, *Let the Best ‘One’ Win: Policy Lessons from the New Economics of Platforms*, 12 COMPETITION POL’Y INT’L 29 (2014) (suggesting that if network effects are sufficiently large, it may be desirable to promote consolidation rather than fragmentation of platforms).

¹³⁴ Workshop Tr. at 34 (Glen Weyl). Differentiated platforms designed to serve different market niches, on the other hand, could provide benefits to participants. See, e.g., Owyang, *Honeycomb 3.0*, *supra* note 39 (listing 280 different platforms serving 40 diverse sectors); EVANS & SCHMALENSEE, *supra* note 54, at 28.

¹³⁵ Workshop Tr. at 34 (Chiara Farronato).

¹³⁶ *Id.* at 41 (when “dominance moves to production, then the usual problems . . . arise”); *id.* at 40-41, 43 (Liran Einav) (“you just have the usual market-power considerations”).

¹³⁷ *Id.* at 41 (Chiara Farronato).

¹³⁸ *Id.* at 42 (Glen Weyl).

¹³⁹ *Id.* at 42-43.

¹⁴⁰ *Id.* at 44 (Joshua Gans).

¹⁴¹ *Id.* at 45 (Liran Einav).

¹⁴² *Id.* at 42 (Glen Weyl). See also Vikram Mansharamani, *What Happens When the Sharing Economy Stops Sharing and Starts Owning?*, PBS NEWSHOUR: MAKING SENSE (Feb. 4, 2016, 10:45 AM), <http://www.pbs.org/newshour/making-sense/what-happens-when-the-sharing-economy-stops-sharing-and-starts-owning/> (quoting Uber CEO Travis Kalanick as saying that the Uber service is more expensive than it should be “because you’re not just paying for the car — you’re paying

as exclusive contracts or other contracts that reference rivals,¹⁴³ could be used to either impede or promote competitive results.¹⁴⁴

VI. Conclusion

As this Chapter suggests, although the general economic questions raised by sharing economy platforms are not novel, serious study of sharing economy platforms is largely in its early stages.¹⁴⁵ Research to date suggests that platforms can succeed by providing thick marketplaces, effective and inexpensive searching and matching mechanisms, and confidence-building trust mechanisms. Platforms have facilitated entry by new suppliers who offer products and services that many consumers view as cheaper, more convenient, or otherwise better than those available elsewhere. The ability of suppliers to use personal assets in supplying goods and services may make certain sharing economy transactions particularly attractive to participants. As sharing economy marketplaces evolve, competition issues may arise relating, for example, to the potential for network effects associated with the platform and vertical integration of platforms into supplying goods or services over the platform.

for the other dude in the car. When there’s no other dude in the car, the cost of taking an Uber anywhere becomes cheaper than owning a vehicle.”).

¹⁴³ Jonathan M. Jacobson & Daniel P. Weick, *Contracts That Reference Rivals as an Antitrust Category*, ANTITRUST SOURCE, Apr. 2012, at 1, <https://www.wsg.com/publications/PDFSearch/jacobson-0412.pdf> (contracts that reference rivals are contract with terms that “affect, directly or indirectly, the terms available to a contracting party’s competitors”).

¹⁴⁴ Workshop Tr. at 32, 35 (Joshua Gans).

¹⁴⁵ Much of this Chapter has focused on the experience of the leading sharing economy platforms in a few sectors, and it is difficult to assess how the experience of these platforms will translate to other sharing economy platforms in new and diverse settings. See Manjoo, *supra* note 50 (opining that the Uber model may be difficult to apply to other sectors).

Chapter Two: Trust Mechanisms in the Sharing Economy

I. Introduction

Every market transaction requires both buyer and seller to have some information about the good or service offered. The amount of information necessary for a specific transaction to occur varies enormously and depends on a number of factors, including the nature of the good or service being sold and the type of interaction between buyer and seller. When credible information about the good or service is limited, establishing trust between buyer and seller can help ensure that a transaction takes place.

Consider, for example, the conundrum of a traveler in an unfamiliar, distant city, who has several choices for lodging, but cannot directly examine any of them beforehand. One choice is a national chain hotel franchise, such as Sheraton or Holiday Inn. Another is a local, non-chain hotel. Yet another might be a condominium owned by an individual and booked through a short-term rental website such as Airbnb. The traveler’s choice will depend not only upon his taste (for example, does he require a hotel with an exercise facility and an on-site restaurant) and his desired price point, but also whether he is willing to trust the particular seller to describe accurately the characteristics of the room and facilities. Is the room clean? Is it safe? Will it be quiet enough for him to sleep? Conversely, the owner’s decision to provide lodging depends on unknown characteristics of the traveler. Will he wreck the room? Will he pay in a timely manner?

Direct information about the quality of the lodging and information about the seller’s reputation have related roles in helping a traveler choose a room. Reputation may take on a more important role when the traveler has access to less information about quality. A large hotel chain is able to provide travelers with direct information about the quality of its rooms in an unknown city (the rooms are likely to be similar to rooms offered by the same chain in other cities the traveler has already visited) and can establish a reputation for providing that quality consistently. A traveler familiar with the rooms offered by Best Western or Marriott Courtyard likely expects similar quality rooms regardless of whether the particular room is located in Maine or Arizona.

A traveler is unlikely to have had direct experience with a local, non-chain hotel. Whether the non-chain is able to attract unfamiliar travelers largely depends on its ability to provide reliable information about its reputation. Indeed, travelers may seek information about such a hotel by reading reviews from AAA or those posted on third-party websites, such as TripAdvisor or Yelp. Moreover, the hotel’s persistence as a visible, physical presence may provide some information about quality to the traveler. The traveler likely knows that there are certain minimum legal standards to which all hotels in a given geographic area must adhere.

Unlike a chain or non-chain hotel, an individual owner of a room, apartment, or house advertised on a sharing economy platform will have an idiosyncratic product, need not have invested anything to begin offering lodging, and may not qualify as a hospitality business that triggers enforcement of health and safety codes. Reviews of these accommodations are unlikely to be found on third-party websites like TripAdvisor or Yelp. This means that a traveler’s baseline information will relate less to brand

recognition, and will depend more on information provided directly by the seller. In such situations, establishing some level of trust and reputation is necessary for sellers to attract buyers.

This Chapter explores the various mechanisms that sharing economy platforms and third parties have developed to provide trust.

II. Asymmetric Information, Adverse Selection, and the Market for Lemons

Markets tend to function better in terms of matching buyers and sellers at competitive prices when both groups have sufficient relevant information. In most instances, however, sellers have more information about the goods and services offered for sale than buyers do. This kind of information asymmetry can result in a “market for lemons,” in which supply may be limited to low quality goods, because sellers of high quality goods cannot convince buyers to pay enough to make selling them profitable.¹⁴⁶ If the problem of adverse selection – where the incentives in the market favor low quality – is severe enough, the market may dissolve as buyers may be unwilling to make a purchase at any price.¹⁴⁷

Aside from reputation and trust, there are a number of ways to mitigate these kinds of market failures. They include providing mechanisms for ensuring the availability of credible information about quality, for example, through third-party inspection or certification; legal requirements that broadly apply to merchants, such as consumer protection laws that explicitly prohibit deceptive conduct on the part of sellers and therefore create incentives for truthful and credible disclosures; or mandated disclosures of certain kinds of information. Private law regimes, such as contract law and terms of service, also may create incentives for credible disclosures.

A. Factors That Influence the Importance of Trust

The extent of a buyer’s need to trust a seller can depend on a number of factors. The most important ones are whether a buyer can assess the quality of the good before purchase, and whether the exchange of money for a product or service can occur simultaneously. Transactions on sharing economy platforms may lack both of these features. In addition, participants on sharing economy platforms may not be able to use some mechanisms used in other contexts to establish reputation and trust.

For example, a brick-and-mortar seller’s investment in a physical space typically implies that the seller will remain in business through at least the short term, and therefore can serve as a signal to the

¹⁴⁶ George Akerlof, *The Market for “Lemons”: Quality, Uncertainty, and the Market Mechanism*, 84 Q. J. ECON. 488 (1970). Akerlof’s example is the market for used automobiles, in which buyers often have a difficult time determining quality. Because buyers have trouble distinguishing between high- and low-quality used cars, Akerlof surmised that “bad cars drive out the good because they sell at the same price as good cars.” *Id.* at 490. In other words, a seller with a high-quality used car may decide not to enter the marketplace at all because he cannot earn a premium for selling a good car.

¹⁴⁷ *Id.* at 495 (“The presence of people in the market who are willing to offer inferior goods tends to drive the market out of existence.”); Workshop Tr. at 55 (Ginger Jin) (“To the extreme, such information asymmetry could even invite outright fraudulent behavior from sellers and lead to a collapse of the whole market.”).

consumer about the seller’s quality level.¹⁴⁸ Further, in brick-and-mortar stores the buyer often has an opportunity to inspect the good physically. Moreover, the seller’s investment in a physical location provides leverage to regulators and law enforcement in the event a dispute arises with a buyer.

In contrast, online transactions have no physical location for a prospective customer to visit, and payment occurs over the platform rather than in person. The online presence may not signify a considerable investment in staying in business. And an online marketplace presents limited opportunity for physical inspection by the buyer, although many online sellers do provide photographs and physical descriptions of products.¹⁴⁹ In addition, payment generally occurs before the buyer receives a good, so buyers need to trust both that the good is as represented and that it will actually be shipped.

A seller’s reputation is an important factor in facilitating transactions in online marketplaces, and a seller’s favorable reputation can provide important leverage for regulators seeking to ensure consumers are protected when shopping online. As one panelist noted, in the “late 1990s and early 2000s, [online] sellers [were] sort of marginal sellers and not in the mainstream. And now we see . . . other established stores” taking advantage of the online marketplace.¹⁵⁰ Additionally, in the past a startup online seller may not have had a favorable reputation, but as those startups have survived and matured, their reputations have become more significant and valuable.

Sharing economy transactions are mediated online and therefore share many of the same information problems as more traditional online transactions. However, a primary distinctive feature of the sharing economy platforms is that they are two- or multi-sided, in that they serve to connect groups of heterogeneous buyers and heterogeneous sellers.¹⁵¹ Whereas traditional online markets can attract a significant number of buyers to purchase from a single seller, sharing economy platforms often match multiple buyers to multiple sellers.

The fact that there is heterogeneity of both sellers and buyers means that information asymmetry can run in both directions.¹⁵² As one panelist noted, “if you’re an Uber driver, the rider has to worry about the quality of their driver; but the driver also has to worry about the quality of the rider. . . . The [Airbnb] host also has very important reasons to worry about what the guest will be like.”¹⁵³ Although not unique to sharing economy platforms – a traditional taxi driver also has to worry about the quality of riders to some extent – multi-sided informational asymmetry is more pronounced in markets operating in

¹⁴⁸ This report refers to a “brick-and-mortar” seller as an entity that sells goods and services from a physical location that is open to the public either through in-person or telephone contact.

¹⁴⁹ Researchers have found that online inspection is an imperfect substitute for physical inspection. See Greg Lewis, *Asymmetric Information, Adverse Selection and Online Disclosure: The Case of eBay Motors*, 101 AM. ECON. REV. 1536 (2011) (showing a significant relationship between the price of a vehicle sold on eBay and the number of photos for each individual listing).

¹⁵⁰ Workshop Tr. at 59 (Ginger Jin).

¹⁵¹ See *supra* Chapter 1, Sections II & III.

¹⁵² Workshop Tr. at 58 (Chrysanthos Dellarocas).

¹⁵³ *Id.*

the sharing economy. As one panelist noted, “we need bi-directional trust to be built much more than in the case of [traditional online] markets.”¹⁵⁴

Moreover, in the sharing economy, a user relies both on the reputation of her transaction partner and on the reputation of the platform itself, and it may be difficult to distinguish between the two.¹⁵⁵ Although the platform may have made substantial investments in establishing a reputation, individual users on the platform may not have done so. Because of this distinction between platform and user investment in reputation, law enforcers or regulators may have less leverage over individual participants in the sharing economy. Law enforcers or regulators may face difficulties even identifying individuals operating on certain sharing economy platforms. For this reason, the sharing economy generally requires well-functioning reputation mechanisms to mitigate information asymmetry.

III. Overview of Mechanisms Used to Mitigate Information Asymmetry in Sharing Economy Markets

One might expect significant information asymmetry to prevent the sharing economy from growing, and yet the sharing economy appears to be growing continuously. One reason is that platforms are using technology to solve or at least ameliorate existing information asymmetry. As one panelist explained, “the reason that this information asymmetry problem does not stop the sharing economy from prospering is because the internet also provides a number of new tools to address the problem. It allows us to see the buyer experiences of those who have bought from the same sellers – maybe 10,000 miles away, maybe years ago – but the system allows us to share those buyer experiences in a very convenient way.”¹⁵⁶

Certain efforts developed by traditional online sellers to reduce information asymmetry can be categorized as direct substitutes for efforts typically undertaken by brick-and-mortar sellers. These include providing quality images and video of products for sale, product descriptions and technical specifications, and other efforts to provide information online that would be available to an in-store shopper. Some vendors provide customers the opportunity to chat online with a sales associate. In addition, many online vendors offer liberal return policies to reduce consumer apprehension associated with purchasing an item they have not physically inspected.¹⁵⁷ Other examples include adopting security

¹⁵⁴ *Id.*

¹⁵⁵ Matchen Comment at 2 (“[W]hen a Customer is asked to rate their Uber experience, they are rating Uber as well. They will take into consideration the fee and that will be in their mind when rating their ‘experience.’ So when a driver has a bad rating it could not be them who is rated, it could be [the overall] Uber experience.”).

¹⁵⁶ Workshop Tr. at 56 (Ginger Jin); *see also* Mercatus Ctr. Comment at 13 (“With the recent growth of the sharing economy, even more robust reputational feedback mechanisms now exist that help consumers solve information problems and secure a greater voice in commercial interactions. These mechanisms have been integrated into platforms connecting buyers and sellers and have become an essential feature of these sectors.”); *see generally* Adam Thierer et al., *How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the “Lemons Problem,”* (Mercatus Working Paper, Mercatus Center at George Mason University, May 2015), <http://mercatus.org/publication/how-internet-sharing-economy-and-reputational-feedback-mechanisms-solve-lemons-problem>.

¹⁵⁷ *See, e.g.,* *Shipping and Returns*, ZAPPOS, <http://www.zappos.com/shipping-and-returns> (“If you are not 100% satisfied with your purchase for any reason, just go through our easy return process . . . to print out a FREE return label. You have 365 days to return an item to us in its original condition”).

measures for online credit card purchases or other digital payment methods, and robust customer complaint services. Sharing economy platforms also may supply, or help users supply, many of these features.

Sharing economy platforms also have adopted certain measures to reduce information asymmetry that do not necessarily have obvious brick-and-mortar analogues. These measures fall broadly into two categories. The first category is developing a reputation rating system. The paradigmatic example is the seller rating system developed by eBay whereby consumers who purchase an item on eBay have the opportunity to rate their experience with the seller from whom they purchased the item.¹⁵⁸ According to eBay, “[t]he number of positive, negative, and neutral Feedback ratings a member has received over time are part of the Feedback score,” and in most instances, the total score is an aggregate of the individual ratings, with one point added for each positive rating, one point subtracted for each negative rating, and no points added or subtracted for each neutral rating.¹⁵⁹ eBay also has a different “star” rating whereby a seller receives a different colored star next to her numerical rating based upon the seller’s total feedback rating.

In addition to platform-generated ratings systems, third-party websites also serve to rate sellers engaged in online transactions, including sales over sharing economy platforms. Although third-party rating or review systems have brick-and-mortar analogues, internet technology improves these systems. As one panelist explained, “there are far better rating systems now for consumers to rely on. External sources . . . provide customer reviews and feedback in a whole variety of fora . . . There’s a lot more third party information available to consumers to help them be smarter shoppers.”¹⁶⁰

The second category is direct intervention by platforms to promote trust by buyers and sellers. Broadly, these interventions serve to shift risk from buyers and sellers to the platform itself. One approach is to limit or curate entry onto the platform. As one panelist explained, “the platform can define who is allowed and who is not allowed . . . It ranges from anyone who has a credit card can log on the platform, or you have to go through a credit rating check, you have to go through even a criminal record check.”¹⁶¹ An example is the background check Lyft requires of its drivers before it allows them to serve riders using Lyft’s platform.¹⁶² By limiting the number of sellers or buyers able to use the platform, the platform is potentially reducing the number of transactions that occur on the platform, and thus limiting its revenue in the short run. One rationale for curating entry, however, is to send a signal to the marketplace about the quality of platform participants. In this way, the platform is substituting its own reputation for the reputation of individual buyers and sellers transacting on the platform. In the long run, a stronger reputation for high quality may lead to more transactions and more revenue.

Another direct intervention a platform may take is to guarantee reimbursement to dissatisfied buyers or sellers in the event of a negative experience. One panelist explained that “[m]any platforms

¹⁵⁸ *Feedback, Scores, Stars, and Your Reputation*, EBAY, <http://pages.ebay.com/help/feedback/scores-reputation.html>.

¹⁵⁹ *Id.*

¹⁶⁰ Workshop Tr. at 57 (Steven Salter).

¹⁶¹ *Id.* at 56 (Ginger Jin).

¹⁶² Lyft Comment Attachment at 6.

have used some platform guarantee policy; they try to assure buyers that they are protected.”¹⁶³ This guarantee can be “hard” in that the platform agrees to reimburse buyers in the event of an unfavorable transaction, or “soft” in that the platform holds the buyers’ payment in escrow for some period. Platform-supplied insurance is another form of direct intervention by the platform.

A. Reputation Rating Systems

Many sharing economy platforms have review and rating systems that provide feedback on the quality of goods and services offered on the platform and/or feedback on past performance of platform participants. These “reputation rating systems” vary widely in design, content, and effect. Panelists generally agreed that reputation rating systems appear to be critical for sharing economy platforms to overcome problems associated with information asymmetry that would otherwise threaten the existence of those markets. As one panelist explained, “the design of online reputation systems is not a new question. There is a body of literature and practical evidence that dates pretty much since the year 2000, when the system started to appear in the context of eBay and other early stage electronic markets. So for the most part, those systems seem to be working reasonably well – at least well enough to enable those markets to exist and grow.”¹⁶⁴

Reputation mechanisms take many forms. In general, the platform asks buyers to rate their experience with a seller. The rating can be as simple as a positive, negative, or neutral rating, or a rating on a larger scale, such as one to five or one to ten. Platforms differ in whether they allow reviewers to leave free-form textual comments available for other participants to read and in whether both buyers and sellers are reviewed. Many platforms publish an aggregated score that factors in each individual review for other participants to view. Many platforms also take steps to ensure only those with verified transactions are able to review a specific participant. Below we discuss the reputation rating systems employed by Uber and Airbnb as described in the two companies’ comments.

1. Specific Reputation Rating Systems

Uber’s reputation rating system requires both the rider and the driver to rate each other at the end of every trip.¹⁶⁵ Each is rated by the other on a scale of one to five stars, and each is able to see the other’s star rating before beginning a trip. In Uber’s view, “[t]his rating system does three critical things: it (1) incentivizes high quality service, (2) establishes accountability, and (3) promotes courteous conduct and helps to mitigate the discrimination that is all too common in traditional for-hire transportation.”¹⁶⁶

According to Uber, the two-way rating system allows riders to “expect highly rated drivers to provide polite and helpful service,” and protects drivers by allowing them to “feel comfortable picking up a highly [] rated rider, even in an out-of-the-way area or at a time of night that might otherwise

¹⁶³ Workshop Tr. at 56 (Ginger Jin).

¹⁶⁴ *Id.* at 66 (Chrysanthos Dellarocas).

¹⁶⁵ Uber Comment at 5.

¹⁶⁶ *Id.*

discourage them.”¹⁶⁷ Further, in Uber’s view, its reputation rating system “mitigates the impact of any potential bias. The rating system consists only of an average numerical rating. A low rating on one trip is therefore folded into the rider’s or driver’s overall average and, in contrast to the rating systems of other platforms, never appears as a standalone rating. There are also no written comments in Uber’s system. This removes yet another opportunity for a biased reviewer to have an outsized impact on a rider’s or driver’s reputation.”¹⁶⁸

In addition to its reputation rating system, Uber has implemented a complaint processing system it believes complements its reputation rating system. According to Uber, “[a]t the end of every ride, both the rider and the driver are automatically prompted to send immediate written feedback to Uber’s support team,” which enables Uber to address customer concerns.¹⁶⁹ Accordingly, although Uber does not publish written comments about platform participants, its complaint processing system does allow riders and drivers to express written views about their experiences.

One commenter, however, expressed frustration about Uber’s reputation rating system, especially from a driver’s perspective. The commenter argued that Uber will “fire” a driver if his rating falls below 4.6 stars, and that the desire among drivers to maintain a high rating leads to “stressed out” drivers “not paying attention.”¹⁷⁰ Moreover, the commenter noted that “when a Customer is asked to rate their Uber experience, they are rating Uber as well. They will take into consideration the fee and that will be in their mind when rating their ‘experience.’”¹⁷¹

Airbnb’s reputation mechanism operates somewhat differently from Uber’s. Unlike Uber, which relies primarily on aggregated five-star ratings, Airbnb uses a combination of written reviews and numerical star ratings to convey information to platform participants about another participant’s reputation. Airbnb states that an individual may write a review only “after a reservation is confirmed on the site,” which enables other users to “trust that any review [] see[n] on a profile page [is] of an actual person booking with or hosting another member of the community.”¹⁷² According to Airbnb, reviews are limited to 500 words¹⁷³ and its “default position is not to censor, edit, or delete reviews.”¹⁷⁴ Moreover, it permits guests and hosts to leave a response to any review received by the platform within the last two weeks.¹⁷⁵

¹⁶⁷ *Id.* See also Relay Rides Comment at 2 (“At the end of the trip, the owners and renters rate each other and give comments about their experience. Businesses like eBay have shown that this kind of feedback loop is very powerful in pushing both parties to adhere to the agreement, respect the property and each other.”).

¹⁶⁸ Uber Comment at 5-6.

¹⁶⁹ *Id.* at 6.

¹⁷⁰ Matchen Comment at 1-2.

¹⁷¹ *Id.* at 2.

¹⁷² *What are Airbnb’s review guidelines?*, AIRBNB, <https://www.airbnb.com/help/article/262/what-are-the-airbnb-review-guidelines>.

¹⁷³ *How do reviews work?*, AIRBNB, <https://www.airbnb.com/help/article/13/how-do-reviews-work?topic=203>.

¹⁷⁴ *What are Airbnb’s review guidelines?*, *supra* note 172.

¹⁷⁵ *How do reviews work?*, *supra* note 173.

In addition to written reviews, Airbnb’s reputation rating system also includes “star ratings.” As one panelist familiar with Airbnb’s system explained, “[t]here are several pages of questions that people get asked after a transaction. There’s textual information Then there are the star ratings, and there are different categories of those ratings.”¹⁷⁶ Airbnb’s platform, therefore, includes a “primary” score rating, which is intended to convey a user’s overall experience with another user on the platform, and several sub-categories, which include: accuracy, communication, cleanliness, location, check in, and value. Airbnb also allows a user to connect his profile on Airbnb with his profile on Facebook to determine whether any of his contacts on Facebook is a friend of a user on Airbnb, potentially facilitating trust through broader social networks that operate outside of the sharing economy. As one panelist explained, the ability to “utilize the social networks – your friends, your group, your colleagues and so forth – all these tools have been used rigorously by the new sharing economy platforms.”¹⁷⁷

Airbnb’s post-transaction questionnaire includes “questions which are never shown on the site but are seen either by the Airbnb platform and/or by the party being reviewed.”¹⁷⁸ One important question asked by the platform is “would you recommend this listing or would you recommend this guest?”¹⁷⁹ The answer is anonymous and not linked to the consumer. This is “a really important question for the review system, because some incentives that people may have not to reveal all the information about their transaction should disappear in this case where the other person would not see that.”¹⁸⁰

Finally, Airbnb’s platform allows participants to contact one another prior to making any transaction. As Airbnb explains, “[b]efore making a reservation, hosts and guests can message each other through our platform to ask any questions that may arise about a pending trip. This ability continues through the reservation, to allow continued communication within the confines of the Airbnb website, diminishing fraud.”¹⁸¹

In addition to platform-generated reputation rating systems, the sharing economy also includes reputation rating systems developed by third parties, which help reduce information asymmetry. As one panelist opined, “[t]here’s a lot more third party information available to consumers to help them be smarter shoppers.”¹⁸² The panelist stated that Carfax “allows us to see the repair and accident history of used cars, which was not available or even not imaginable in the traditional old fashioned way of trading used cars.”¹⁸³ Whereas in the past, a used-car buyer may have relied on a car dealer to provide information about the history of an automobile, including relying on the reputation of the dealer to assess the quality of that information, a buyer can now obtain similar information even if buying the automobile from an individual.

¹⁷⁶ Workshop Tr. at 60 (Andrey Fradkin).

¹⁷⁷ *Id.* at 56 (Ginger Jin).

¹⁷⁸ *Id.* at 60 (Andrey Fradkin).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ Airbnb Comment at 5.

¹⁸² Workshop Tr. at 58 (Steven Salter).

¹⁸³ *Id.* at 56 (Ginger Jin).

One long established third-party rating system that also operates in the sharing economy is the Better Business Bureau (“BBB”). A panelist from the BBB explained that in developing reputation ratings for businesses, the BBB “looks primarily at complaints but also considers the responsiveness of the business to those complaints – whether they resolve them or not. But we also look at external factors like proper licensing, and the presence of government actions taken against the business.”¹⁸⁴ The BBB, like Airbnb, also publishes user-generated narrative content: “[w]e publish the text of the consumer’s complaint. We publish the text of the business’s response. And then any final back-and-forth between the parties as well We face the challenges that the platforms face in weeding out fake reviews.”¹⁸⁵ Although the BBB does publish reviews of platforms operating in the sharing economy, these reviews are fundamentally different from ratings of platform participants made on a platform itself.

Other third-party websites have similar characteristics to platforms operating in the sharing economy even though they do not facilitate peer-to-peer transacting. These include TripAdvisor, Yelp, Angie’s List, and others. Each website allows users to review businesses in various sectors of the economy. For example, the Yelp site allows users to search for various businesses and sort the results based upon location, reputation rating, and other factors. According to Yelp, it “uses automated software to recommend the most helpful and reliable reviews for the Yelp community The software looks at dozens of different signals, including various measures of quality, reliability, and activity on Yelp.”¹⁸⁶ Whether and to what extent third-party review sites like these supplement, substitute, or complement reputation mechanisms embedded in sharing economy platforms is worth future study.

2. Evidence That Reputation Rating Systems Are Effective

The panelists generally agreed that, although rating systems do not function perfectly or eliminate all information asymmetry between buyers and sellers, rating systems likely have facilitated in part the tremendous growth of sharing economy markets.¹⁸⁷ One paper surveying the then-existing empirical literature evaluating reputation rating systems concluded that “a growing body of empirical evidence seems to demonstrate that these systems have managed to provide remarkable stability in otherwise risky trading environments.”¹⁸⁸ Indeed, there is some evidence that reputation rating systems operate more effectively in the sharing economy than they do in other markets. One panelist noted that a much higher percentage of people who transact on Airbnb leave reviews than of those who utilize TripAdvisor or Expedia.¹⁸⁹

¹⁸⁴ *Id.* at 72 (Steven Salter).

¹⁸⁵ *Id.* at 73.

¹⁸⁶ *About, YELP*, <http://www.yelp.com/about>.

¹⁸⁷ Workshop Tr. at 66 (Chrysanthos Dellarocas) (“[T]he design of online reputation systems is not a new question. There is a body of literature and practical evidence that dates pretty much since the year 2000, when the system started to appear in the context of eBay and other early stage electronic markets. So for the most part, those systems seem to be working reasonably well – at least well enough to enable those markets to exist and grow.”).

¹⁸⁸ Chrysanthos Dellarocas, *The Digitization of Word-of-Mouth: Promise and Challenges of Online Reputation Mechanisms*, 49 *MGMT. SCI.* 1407 (2003). One panelist, describing Airbnb’s reputation mechanism, explained that its “review system seems to be working pretty well just because of the tremendous growth that Airbnb has experienced. So something is clearly working correctly.” Workshop Tr. at 60 (Andrey Fradkin).

¹⁸⁹ Workshop Tr. at 60 (Andrey Fradkin).

At a more granular level, panelists highlighted research showing that reputation rating systems seem to solve information asymmetry problems in online transactions.¹⁹⁰ Specifically, research shows that ratings influence potential buyers in their purchasing behavior. Many studies have shown that buyers will pay some premium for goods and services if the individual seller has a higher rating,¹⁹¹ although the studies reach differing conclusions about the size of the premium and others show zero price premium.¹⁹² One paper conducted a randomized controlled field experiment whereby a high-reputation eBay dealer sold matched pairs of goods under his established identity and as a new seller without an established identity.¹⁹³ The researchers found that buyers would pay a higher price for the same good sold by an established seller.¹⁹⁴ Researchers also found that positive feedback has a positive effect on the probability of sale.¹⁹⁵ In other words, a seller with a higher reputation score on eBay can not only command a higher price, but also is more likely to make a sale than a seller with a lower reputation score.

Panelists also highlighted research showing that reputation rating systems may screen especially bad actors and deter the worst types of fraudulent behavior.¹⁹⁶ As one panelist explained, “one of the things that reputation mechanisms do perhaps very well is weed out the particularly egregious situations – the real bad situations on eBay where you actually have fraudulent sellers.”¹⁹⁷ One study supporting this view found that a seller on eBay is more likely to exit the platform if his reputation score is lower.¹⁹⁸

¹⁹⁰ Dellarocas, *supra* note 188 (surveying literature); Paul Resnick & Richard Zeckhauser, *Trust Among Strangers in Internet Transactions: Empirical Analysis of eBay’s Reputation System*, in 11 ECONOMICS OF THE INTERNET AND E-COMMERCE (Michael R. Baye ed., 2002) (same); Patrick Bajari & Ali Hortaçsu, *Economic Insights from Internet Auctions*, 42 J. ECON. LIT. 457 (2004) (same).

¹⁹¹ Workshop Tr. at 63 (Chris Nosko) (“[T]here is a lot of research that shows that . . . reviews . . . seem to matter in terms of the price that an item will clear at on auction. So higher reviewed sellers get higher prices.”). *See, e.g.*, Ginger Zhe Jin & Andrew Kato, *Price, Quality, and Reputation: Evidence from an Online Field Experiment*, 37 RAND J. ECON. 983 (2006); Daniel Houser & John Wooders, *Reputation in Auctions: Theory, and Evidence from eBay*, 15 J. ECON. & MGMT. STRAT. 353 (2006); Paul Resnick et al., *The Value of Reputation on eBay: A Controlled Experiment*, 9 J. EXP. ECON. 79 (2006); Luis Cabral & Ali Hortaçsu, *The Dynamics of Seller Reputation: Evidence from eBay*, 58 J. INDUS. ECON. 54 (2010); Mikhail Melnik & James Alm, *Does a Seller’s eCommerce Reputation Matter?*, 50 J. INDUS. ECON. 337 (2002); Jeffrey A. Livingston, *How Valuable is a Good Reputation? A Sample Selection Model of Internet Auctions*, 87 REV. ECON. & STAT. 453 (2005); Patrick Bajari & Ali Hortaçsu, *The Winner’s Curse, Reserve Prices and Endogenous Entry: Empirical Insights from eBay Auctions*, 3 RAND J. ECON. 329 (2003); Sulin Ba & Paul A. Pavlou, *Evidence of the Effect of Trust Building Technology in Electronic Markets: Price Premiums and Buyer Behavior*, 26 MIS Q. 243 (2002).

¹⁹² David H. Eaton, *Reputation Effects in Online Auction Markets* (Mar. 2005) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=739765.

¹⁹³ Resnick et al., *supra* note 191.

¹⁹⁴ *See id.* (finding that the difference in buyers’ willingness to pay was 8.1% of the sales price).

¹⁹⁵ *See* Jin & Kato, *supra* note 191 (“most studies found some expected effects of seller reputation on the likelihood of sale”); Resnick et al. *supra* note 191 (surveying literature); Livingston, *supra* note 191; Bajari & Hortaçsu, *supra* note 191; Eaton, *supra* note 192; Resnick & Zeckhauser, *supra* note 190.

¹⁹⁶ Jin & Kato, *supra* note 191 (finding that “reputable sellers are less likely to default or deliver counterfeit” goods).

¹⁹⁷ Workshop Tr. at 78 (Chris Nosko); *see also id.* (finding that “reputable sellers are less likely to default or deliver counterfeit” goods).

¹⁹⁸ Cabral & Hortaçsu, *supra* note 191.

In addition, there is evidence that reviews authored by “elite” reviewers have an impact on future transactions on the platform. As one panelist explained, “[m]y research has shown that reviews which have been rated as useful by readers in a commercial context, they actually correlate with fewer product returns, which is one metric of making a good or a bad decision.”¹⁹⁹

Taken together, the panelists generally agreed that there is a strong basis upon which to conclude that reputation rating systems facilitate trade on online platforms, and that these mechanisms reduce information asymmetry with enough effectiveness to allow the enormous growth of these platforms. Much of the evidence showing that reputation mechanisms serve to reduce information asymmetry and facilitate online trading, however, comes from examining eBay’s platform. Examining the effects of reputation mechanisms on platforms in which the seller is trading a service rather than selling a good would be a helpful next step in considering the impact reputation mechanisms have had on the sharing economy at large.

3. Evidence That Reputation Rating Systems Are Imperfect

Although the panelists generally agreed that reputation rating systems reduce information asymmetry in online markets and work well enough to allow sharing economy platforms to grow, they also generally agreed that existing reputation rating systems do not function perfectly. Panelists identified several imperfections and suggested various ways potentially to improve reputation rating systems.

a. Ratings Biased Upward and Toward Extreme Experiences

Panelists pointed to two potential biases in aggregate reputation scores. First, aggregated reputation ratings may be biased upward because many users tend only to leave positive feedback. Researchers have found that feedback on eBay is overwhelmingly positive. A 2001 paper indicates that 99.1% of comments left by buyers were positive, 0.6% were negative, and 0.3% were neutral.²⁰⁰ One reason for this upward bias is that disappointed buyers often do not leave any feedback whatsoever rather than leave negative feedback.²⁰¹ In one panelist’s words, “a substantial number of buyers seem to be left out and disappear and walk with their feet.”²⁰² Ratings may be misleading if, in one panelist’s view, “the people that don’t leave a review . . . have a worse experience on average than the people that do leave a review.”²⁰³ If that is the case, then a seller’s aggregate rating may not reflect his or her “true” quality.

¹⁹⁹ Workshop Tr. at 68 (Chrysanthos Dellarocas). Nachiketa Sahoo, Chrysanthos Dellarocas & Shuba Srinivasan, *The Impact of Online Product Reviews on Product Returns* (Boston U. School of Mgmt., Research Paper No. 2491276, 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2491276.

²⁰⁰ Resnick & Zeckhauser, *supra* note 190; Chrysanthos Dellarocas & Charles A. Wood, *The Sound of Silence in Online Feedback: Estimating Trading Risks in the Presence of Reporting Bias*, 54 MGMT. SCI. 460 (2008).

²⁰¹ Chris Nosko & Steven Tadelis, *The Limits of Reputation in Platform Markets: An Empirical Analysis and Field Experiment* (Nat’l Bureau of Econ. Research, Working Paper No. 20830, 2015), <http://www.nber.org/papers/w20830.pdf>.

²⁰² Workshop Tr. at 62 (Chris Nosko).

²⁰³ *Id.* at 61 (Andrey Fradkin).

If all ratings on the same platform exhibit an upward bias to the same extent, however, the platform’s rating system would nevertheless allow users to sort between higher and lower quality sellers to some degree. Moreover, platform participants with high ratings tend to get more business and earn additional high ratings, potentially skewing results. As one panelist explained, “we’re more likely to engage with products and suppliers who already have good ratings and we’re more likely to give them good ratings in return, because they are the best, most likely.”²⁰⁴

In any event, one potential solution for an upward bias in reputation ratings, in one panelist’s view, is to report on the number of transactions that did not result in a review: “[i]f the market starts penalizing parties for not receiving feedback, then this can actually help maybe put things into some more perspective.”²⁰⁵ Another potential solution would be for the platform to take steps to make it more likely that users will leave reviews, such as Uber’s practice of requiring riders to rate the prior driver before booking a subsequent ride.

A second bias relates to the observation that users leave feedback more frequently as their experience diverges further from the average experience. One panelist opined that ratings are skewed to extreme experiences: “[w]e are more inclined to speak up if we have extreme experiences than if we have average experiences.”²⁰⁶ Depending upon the number of ratings an individual seller has from buyers that have had extreme experiences, and whether the extreme experiences were positive or negative, it may bias that seller’s reputation rating upward or downward.

b. Ratings Can Be Manipulated for Strategic Purposes

In addition to the problem associated with platform users deciding not to leave reviews – suggesting that reputation scores do not accurately reflect the experience of all users on the platform – panelists pointed out that in some instances, users who do leave reviews do not always leave a review that accurately represents their experience.

One thread of research has shown that it is possible to manipulate online ratings systems by posting fake reviews. Researchers have shown empirically that entities wishing to manipulate ratings can use fake online identities to post dishonest feedback either to inflate a particular reputation or to tarnish one.²⁰⁷ Posting fake reviews either to bolster or to tarnish the reputation of a specific actor may have limited applicability to sharing economy platforms where sellers are individuals rather than businesses and tend to be large in number. Reviews or ratings made by fake profiles, however, may be a significant issue for third-party review websites that seek to rate businesses. Indeed, the research that found such manipulation examined ratings data from third-party websites TripAdvisor and Expedia, and

²⁰⁴ *Id.* at 66 (Chrysanthos Dellarocas).

²⁰⁵ *Id.* at 67.

²⁰⁶ *Id.* at 66; see also Chrysanthos Dellarocas & Ritu Narayan, *A Statistical Measure of a Population’s Propensity to Engage in Post-Purchase Online Word-of-Mouth*, 21 STAT. SCI. 277 (2006).

²⁰⁷ Dina Mayzlin et al., *Promotional Reviews: An Empirical Investigation of Online Review Manipulation*, 104 AM. ECON. REV. 2421 (2014).

showed that extremely low ratings were more likely for the same hotel on TripAdvisor than on Expedia, because TripAdvisor took fewer steps to prohibit fake reviews.²⁰⁸

Another thread of research has identified a more subtle form of bias directly applicable to reputation rating systems on sharing economy platforms. As one panelist explained, “there are some reasons why the review system might not capture all the relevant information. One reason might be strategic – if people are afraid of retaliation in the review system. So if I left a bad review, I might be afraid of being retaliated against.”²⁰⁹ Another panelist concurred: “[i]f both parties rate one another, there can be this hold-up problem where people are afraid to say anything negative. And this is becoming more of an issue in the sharing economy . . . because both parties are risky to one another – much more than in commercial transactions.”²¹⁰ A different explanation for this effect relates to social mores. In one panelist’s view, “if I became friends with my hosts, I might not say something mean about them.”²¹¹ His research, however, shows that although this behavior exists, it does not significantly affect ratings in the aggregate.²¹²

Nevertheless, platforms have taken steps to reduce the impact of these biases. Most platforms and third-party review sites take various steps to ensure that reviewers have actually engaged in the transaction they are reviewing, thus reducing the possibility of outright fake reviews.²¹³ Airbnb has sought to reduce bias associated with bilateral holdup by publishing buyer and seller reviews simultaneously. As one panelist explained, since the middle of 2014, Airbnb does “not show a given review until the other party left a review.”²¹⁴

c. Impact of Experience

The panelists also pointed out that the content of online reviews or reputation ratings has a different impact on different groups of users. In general, they agreed that more experienced platform users may respond to reviews differently than new or less experienced users, *i.e.*, there is a platform learning curve. One panelist’s view is that some sophisticated eBay buyers “know how to ‘unbias’ the reviews that they’re given,”²¹⁵ for example, by accounting for the potential upward bias in reputation ratings. Another panelist further explained that certain consumers pay close enough attention to text

²⁰⁸ *Id.*; see also Fla. Bed & Breakfast Inns Comment at 3 (“Reputation systems are no longer impartial when companies like Expedia own Trip Advisor [sic] and are subject to manipulation in more than one way. Comments/reviews can be posted without proof of stay or services rendered.”).

²⁰⁹ Workshop Tr. at 61 (Andrey Fradkin); see also Cabral & Hortaçsu, *supra* note 191.

²¹⁰ Workshop Tr. at 67 (Chrysanthos Dellarocas); see also Cabral & Hortaçsu, *supra* note 191 (suggesting that buyers may be reluctant to leave the first negative review out of fear of tarnishing the seller’s positive reputation).

²¹¹ Workshop Tr. at 61 (Andrey Fradkin).

²¹² *Id.*

²¹³ See *infra* Chapter 2, Section III.B.3.b.

²¹⁴ Workshop Tr. at 61 (Andrey Fradkin).

²¹⁵ *Id.* at 63 (Chris Nosko); Jin & Kato, *supra* note 191 (showing that experienced buyers on eBay tend to avoid certain products and hypothesizing that buyers learn over time).

reviews such that “specific words on the text of reviews correlate positively or negatively with prices that sellers can obtain for similar items.”²¹⁶

Moreover, the impact of the difference in experience is felt not only by those reading the reviews or ratings and making decisions based upon them, but also by those making the reviews and ratings in the first instance. One panelist noted that a rater who “cares about their own reputation” may “try to cater to the audience” rather than rate accurately.²¹⁷ In so doing, the rater would import misinformation into the rating system, potentially skewing results. The skewing of results could be relatively more significant in the case of reviewers with reputations as popular reviewers, because research has shown that “reviews from identified reviewers carry more weight than those from anonymous reviewers.”²¹⁸

d. Cold Starts as a Problem for New Entrants

Panelists and commenters also identified the inherent problem new users on a platform face in building a reputation, a problem new entrants may face in operating a business in the traditional economy as well. As one commenter described, “[c]oming into a service with a clean slate, new users necessarily have no reputation to put forward.”²¹⁹ This problem is known as the “cold start.” The cold start makes it difficult for new users to be chosen by buyers or sellers in situations in which the platform allows users to choose and does not match buyers and sellers directly. This problem necessarily leads to the question, “[h]ow do you gain trust if you have no profile, you want to enter the market – who’s going to trust you?”²²⁰

Panelists generally agreed that reputation rating systems alone are unlikely to solve this problem. Reputation rating systems generally do a good job of identifying high- and low-quality users, but only once an individual user has engaged in a significant number of transactions. When the number of transactions an individual user has engaged in is low or even zero, even a well-functioning reputation rating systems would have trouble identifying whether the user is of high or low quality.

One panelist opined that solving the “cold start” problem requires more direct intervention by the platform.²²¹ One option is for the platform to place restrictions on who it allows to use the platform in the first place. Such efforts to curate entry, typically seen on the seller side rather than on the buyer side, would reduce the risk of transacting with a user that has a small number of ratings. By curating entry, the platform would, in effect, substitute its own reputation for that of individual users. If the platform

²¹⁶ Workshop Tr. at 64 (Chrysanthos Dellarocas); *see also* Pai-Ling Yin, *Information Dispersion and Auction Prices* (Stan. Inst. for Econ. Pol’y Research, Working Paper No. 02-024, 2006), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=690201 (suggesting that a well-designed web page has a sizeable effect on sale prices).

²¹⁷ Workshop Tr. at 65 (Ginger Jin).

²¹⁸ *Id.* at 64 (Chrysanthos Dellarocas).

²¹⁹ Bénédicte Dambrine, Joseph Jerome & Ben Ambrose, Future of Privacy Forum, *User Reputation: Building Trust and Addressing Privacy Issues in the Sharing Economy* 8 (June 2015), *attached to* Future of Privacy Forum Comment.

²²⁰ Workshop Tr. at 68 (Chrysanthos Dellarocas).

²²¹ *See id.* *See generally infra* Chapter 2, Section III.B.

has a reputation for doing a good job screening potential users, then a user – typically a buyer – need not rely as heavily on a seller’s individual reputation when deciding whether to transact.²²²

Another platform intervention helpful to solving the cold start problem would be to require new members to “pay in” to the platform: “[t]heoretically, you can require new members to post a bond. You can use escrow services until somebody has established themselves.”²²³ If new members post a bond, then users choosing whether to deal with a new member will know that there is compensation potentially available if they are dissatisfied with the transaction, which will make it more likely that users will be willing to transact with new members.

e. Reputation Milking and the Final Period Problem

Panelists identified an additional problem with reputation systems whereby an established seller on the platform with a favorable reputation rating stops being a high-quality seller, another problem that can also occur in the traditional economy. Because it likely will take time for the reputation rating system to adjust to the seller’s change in quality, buyers may continue to treat the changed seller as a high-quality user and could potentially come away from a transaction dissatisfied. The problem of “reputation milking” is especially acute if the seller plans to exit the platform entirely and therefore has no interest in maintaining his reputation rating going forward. As one panelist explained, this problem occurs when “somebody builds a good reputation and then they can try to milk it. Or when they want to exit the market, then they cheat a few times and then they exit gracefully and take a one way ticket to Brazil or something like that.”²²⁴ Indeed, research confirms the existence of this problem, known as the “final period problem.”²²⁵

Although it is unclear whether the final period problem affects a large number of transactions, panelists identified several adjustments to reputation rating systems and platform interventions that could potentially mitigate the problem. First, a platform could alter how it calculates a user’s reputation score by weighting older transactions less heavily and newer transactions more heavily. This would allow users more easily to identify when a high-quality seller has changed to become a low-quality seller than if the system weighted all transactions equally. Second, an effective reputation rating system supplied by a third party – one that stays with a user even after he exits the platform – would likely prevent or mitigate the problem of reputation milking because sellers would retain some incentive to maintain a good reputation. Finally, a direct platform intervention, such as the platform agreeing to reimburse a dissatisfied buyer, would reduce the potential harm caused by reputation milking but potentially raise the platform’s costs overall. As one panelist explained, “the end game problem is something that really cannot be solved very easily by reputation alone. And that’s where platform guarantees or dispute resolution or some alternative mechanisms can play a role.”²²⁶

²²² See *infra* Chapter 2, p. 34.

²²³ Workshop Tr. at 68 (Chrysanthos Dellarocas).

²²⁴ *Id.* at 68.

²²⁵ Cabral & Hortaçsu, *supra* note 191 (finding that sellers receive more negative feedback than their lifetime average just before exiting the platform).

²²⁶ Workshop Tr. at 68 (Chrysanthos Dellarocas).

f. Potential Adjustments that May Improve Reputation Rating Systems

Although panelists generally agreed that existing reputation rating systems do a good job of reducing information asymmetry in sharing economy marketplaces, they offered several recommendations that platforms might use to reduce the asymmetry further. First, a platform might report a user’s percentile rating in addition to (or instead of) the user’s raw score.²²⁷ A percentile rating would allow buyers more easily to evaluate how a given seller rates in comparison to other sellers on the platform.

Second, a platform could also report a user’s number of unrated or “silent” transactions next to the user’s overall reputation mechanism. This could have the effect of mitigating the impact of the upward bias in online reputation rating mechanisms. As one panelist noted, “the percentage of transactions where people did not report feedback is informative.”²²⁸ If platforms report the percentage of unrated transactions, then users could use that information to adjust each individual’s reputation score and adapt their transaction decisions accordingly. Moreover, a platform reporting the percentage of silent transactions could also potentially reduce the impact of platform users failing to rate their transaction partner out of fear of a retaliatory rating.²²⁹

Third, one panelist opined that reputation rating systems are more effective when the platform allows users to input and view narrative reviews in addition to a raw reputation score. In this panelist’s view, narrative reviews “can be much more nuanced and informative than just the numbers,” and there is evidence that people do read the reviews.²³⁰ The impact and feasibility of displaying text reviews in addition to reputation scores is likely to vary somewhat from market to market within the broader sharing economy.

Fourth, the problem of false reviews submitted to harm a competitor’s reputation or to raise one’s own relative score can be mitigated by allowing only verified platform users to submit reviews. In one panelist’s view, platform verification makes it difficult for a user to manipulate the system by posting a number of false ratings.²³¹ Another approach to limiting the impact of false or strategic reviews is for the platform itself to filter out fake or dubious reviews using a computer algorithm, or to allow users to “rate the rater” by voting for particularly helpful reviews.²³²

Finally, panelists suggested that adjusting the way platforms calculate a user’s reputation score to weight recent transactions more heavily than older transactions would result in a more accurate reputation signal. As one panelist explained, “the optimal reputation mechanism has to discount the past, because if you just let somebody accumulate score, it’s very difficult to detect if somebody has

²²⁷ *Id.* at 67 (“This can alleviate a little bit the extent to which things seem skewed.”).

²²⁸ *Id.*

²²⁹ Ginger Jin et al., Presentation Slides at FTC Workshop, The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators 10 (June 9, 2015), https://www.ftc.gov/system/files/documents/public_events/636241/panel2.pdf.

²³⁰ Workshop Tr. at 67 (Chrysanthos Dellarocas).

²³¹ *Id.*

²³² Ginger Jin et al., *supra* note 229, at 10. One commenter opined that “[an] independent agency might help prevent glowing ‘sock puppet’ reviews or unfair criticisms. Certification might even deflate mutual excess flattery.” Van Alstyne Comment at 27.

[changed] in quality.”²³³ In other words, although more distant performance is certainly relevant to a seller’s present quality, it is less relevant than more recent performance, and the most accurate reputation rating mechanism ought to reflect this temporal effect. Weighting recent transactions more heavily could not only reduce the prevalence of seller reputation milking, but also allow sellers that have improved in quality over time to enjoy the benefits of an improved reputation.

4. Platform Incentives and Bundling Reputation with the Platform

Panelists also discussed whether there is any conflict of interest in having the platform rather than a third-party supply the reputation-rating mechanism. Platforms sometimes earn fees based upon the number of transactions that occur on the platform. Accordingly, the platform’s incentive to increase the number of transactions may result in the platform having an incentive to inflate the quality of users’ reputations on the platform.²³⁴

In general, however, panelists agreed that the platform’s incentives usually align with consumers’ interest; the platform generally wants to ensure that users have a good experience and will continue to use the platform. This suggests that platforms have an incentive to make sure that reputation rating systems communicate accurate information. As the Short-Term Rental Advocacy Center noted, platforms operating in this space are “intermediaries connecting buyers and sellers in an increasingly competitive marketplace, [and] it is in their best interest to ensure both the validity and accuracy of listings, as well as the corresponding reviews of travelers. Failing to do so puts the reputation of the platform at risk, which is the benchmark by which the majority of consumers will base a decision.”²³⁵

Panelists pointed out that there are a number of consumer benefits associated with having a platform bundle the market-making and reputation-rating functions together. As one panelist explained, “in principle, it is advantageous to have reputation systems embedded in the platform because . . . reputation alone has certain weaknesses. So reputation has to be supplemented by the platform guarantees, background checks, some form of dispute resolution mechanisms, and maybe some way of ascertaining that somebody who posts feedback has actually transacted. And it’s much easier to do this if the system is embedded inside the platform.”²³⁶ Accordingly, these economies of scope suggest that bundling the reputation rating system with other services provided by the platform serves consumers well.²³⁷

²³³ Workshop Tr. at 70 (Chrysanthos Dellarocas).

²³⁴ *Id.* (Platforms “have an incentive to make it seem that things are kind of better than they are. A little better, so that there are fewer dissatisfied customers, that fewer transactions would go bad. There is this conflict of ‘how much information do you reveal?’”).

²³⁵ Travel Tech. Ass’n Comment at 2.

²³⁶ Workshop Tr. at 69 (Chrysanthos Dellarocas).

²³⁷ Travel Tech. Ass’n Comment at 5 (“Short-term rental platforms have taken measures over time to integrate comprehensive and important reputational feedback mechanisms into their platforms. Doing so has brought a level of trust to the transaction and in turn, comfort to travelers – often at a level that far exceeds that achieved by government regulation. In fact, in a 2015 consumer research study on the sharing economy by PricewaterhouseCoopers LLP, 64% of consumers said that in the sharing economy, peer regulation is more important than government regulation.”).

On the other hand, panelists explained that the platform does not necessarily have the incentive to provide accurate reputation ratings to consumers in all situations. First, a platform may have the incentive to inflate the quality of users’ reputations to make the platform more attractive relative to its platform competitors.²³⁸ Second, panelists explained, bundling the reputation rating system with the market-creating function of platforms creates the potential for user lock-in. If a seller devotes time and resources to building a reputation on one platform, that seller may be reluctant to start over and build a reputation on a new competing platform even if the new competitor offers superior terms. As one panelist explained, “reputation is [] a trust building mechanism, but it’s also an incentive to stay in the platform. It is greater switching costs; it’s a lock-in mechanism.”²³⁹ In this panelist’s view, the platform’s incentive to provide the best reputation rating system can conflict with its desire to keep users on its platform: if the platform shows a seller’s score just for six months, for example, this reduces the platform’s lock-in on the seller compared to showing a seller’s score for several years. In this case, “optimal design and incentives for the platform can be in conflict.”²⁴⁰

Finally, in assessing the costs and benefits of bundling market-making and reputation rating systems together, one panelist highlighted the importance of considering whether a third-party may be better suited to take on the role of maintaining a reputation rating system. In this panelist’s view, aggregating a single user’s reputation across platforms could generate benefits: if a user has “a reputation on Yelp, a reputation on eBay, and a reputation on Amazon,” there may be “some economic efficiencies to aggregating that information together and hav[ing] a more comprehensive picture of what [the user] look[s] like in the whole world of e-commerce.”²⁴¹ But individual platforms “may not have the incentive to really collect all that information and get it onto one platform. So that’s probably what the third party certification website could do.”²⁴²

B. Platform Interventions

A platform “intervention” is an action a platform takes to shift some transaction risk from users on the platform to the platform itself. Such interventions can complement reputation ratings systems and, in some cases, improve consumer protection. As one panelist explained, there is evidence that “platforms have been moving more and more toward these sorts of mechanisms. And you see the newer platforms, like Uber, actively intervening in ways that eBay certainly didn’t do in the early days.”²⁴³

Panelists and commenters discussed many different types of platform interventions. The first and most obvious is curated access. Rather than allow any individual to sign up for a platform, the platform undertakes some effort to pre-screen users. This can be as simple as requiring a buyer on the platform to provide valid credit card information before being allowed to use the platform, or as complicated as a thorough background check that investigates a potential ride-sharing driver’s criminal history and driving record. On the one hand, platform pre-screening can reduce the thickness of the market by

²³⁸ See *supra* note 234.

²³⁹ *Id.* at 69.

²⁴⁰ *Id.* at 70.

²⁴¹ *Id.* (Ginger Jin).

²⁴² *Id.* at 70-71.

²⁴³ *Id.* at 74 (Chris Nosko).

reducing the total number of buyers and sellers eligible to engage in transactions on the platform. On the other hand, pre-screening indicates to buyers and sellers that the platform has done some amount of due diligence on users, which can signal that a platform establishes a minimum level of quality in its users.

Another type of intervention is known as a “platform guarantee.” Platform guarantees can take many forms, but all essentially function as platform-provided insurance in the event a buyer or seller is dissatisfied with a particular transaction. A guarantee could be an explicit guarantee by the platform to reimburse dissatisfied users. It could also take the form of an escrow service, such as Airbnb holding a guest’s payment in escrow until after the transaction is complete.²⁴⁴ A platform guarantee could also be an explicit insurance product, such as Airbnb-provided insurance for hosts and guests against any injury or damage that occurs during a stay.

If a platform actually matches buyers and sellers rather than allowing them to select one another on their own, the platform’s matching function can also operate like a platform intervention. As one panelist explained, “how do we match buyers and sellers together without them even knowing what’s going on behind the scenes? Because we know something about the buyer preferences and the seller preferences.”²⁴⁵ This is made possible because “oftentimes the platform knows a lot about” the users.²⁴⁶ Matching using this knowledge reduces the likelihood that either user will end up dissatisfied. In this way, the quality of the platform’s matching function serves as a signal to users about the likelihood that a transaction will be mutually beneficial.

Perhaps the best way to understand platform guarantees is to consider them in action. Airbnb offers several guarantees to hosts and guests that use its platform. First, Airbnb curates entry by linking “a person’s offline identification (such as a driver’s license or a passport) with the online profile they’ve created on Airbnb, giving both hosts and guests helpful information before they proceed with a reservation.”²⁴⁷ Next, Airbnb’s payment processing system allows it to deny payment to a host if an accommodation is not as it was described.²⁴⁸ Airbnb also offers insurance to hosts for up to \$1 million in damages to the listed property as well as liability insurance in the event a guest is injured during her stay.²⁴⁹ Finally, Airbnb offers an alternative dispute resolution process for guests and hosts who are dissatisfied with a particular transaction.²⁵⁰

Lyft also provides several guarantees to platform users. In particular, Lyft requires drivers to submit Social Security numbers and engages in a nationwide criminal record check and driving record check.²⁵¹ In addition, Lyft provides insurance coverage that varies depending upon whether the driver is

²⁴⁴ *Id.* at 59 (Andrey Fradkin) (Airbnb “processed the payments and it held them in escrow until the transaction occurred.”).

²⁴⁵ *Id.* at 74 (Chris Nosko).

²⁴⁶ *Id.*

²⁴⁷ Airbnb Comment at 4.

²⁴⁸ *Id.* at 4.

²⁴⁹ *Id.* at 4.

²⁵⁰ *Id.* at 5.

²⁵¹ Lyft Comment Attachment at 6. As discussed below, Workshop participants questioned whether the background checks conducted by Lyft and Uber are sufficient to protect consumers, and some regulators have alleged that their safety claims are misleading. *See infra* p. 79.

in the process of picking up or dropping off a passenger, or is waiting (with the app on) to be matched with a passenger.²⁵²

Panelists explained that platform guarantees have both positive and negative effects from a consumer welfare perspective. In general, a platform guarantee can shift risk away from platform users or “from whoever will suffer from the information problem. And this shift of risk . . . may enhance buyer willingness to use the platform.”²⁵³ Platform guarantees can work as complements to reputation rating mechanisms, and can specifically help solve the cold start and reputation milking problems that can bedevil reputation mechanisms.²⁵⁴ According to a panelist, the platform guarantee likely is a better tool to deal with the final period problem than a reputation mechanism.²⁵⁵

Platform interventions, however, are capable of addressing only limited problems. They do not prevent consumers from being deceived in the first instance. For example, even if a payment is held in escrow or new supplier entrants are screened, these interventions do not prevent all consumer harm. Rather, they operate to make a dissatisfied user whole only after a problem has occurred, and may be imperfect at fully addressing the harm. For example, if a consumer is hurt on a property rented out by a host operating on Airbnb, insurance supplied by Airbnb does not prevent the injury or damage from happening in the first place.

Moreover, just like reputation mechanisms, platform guarantees can also pose problems. Although a guarantee by the platform obviates somewhat the need for platform users to trust a user on the other side of the platform that is of uncertain quality, to be effective in reducing information asymmetry the guarantee requires the user to trust the platform instead. One panelist questioned why users systematically “would trust the platform more than individual sellers? We know this marketplace is still in flux and many platforms may not exist sometime down the road. So I think it’s still an open question of why the buyers would trust the platform more.”²⁵⁶ In this vein, a platform guarantee may be “just a tool for [the platform] to expand quickly, rather than to provide a better incentive for due diligence in weeding out the bad [users].”²⁵⁷

Whether substituting platform reputation for user reputation reduces information asymmetry depends upon the quality of the platform’s reputation, which can be a function of whether the platform is

²⁵² Lyft Comment Attachment at 7 (If the application is off, “[a] driver’s personal insurance is the insurance policy.” If the application is turned on but the driver has not yet accepted a ride, “Lyft provides Contingent Liability protection if [the driver’s] personal insurance doesn’t.” Once the ride request is accepted, “Lyft’s liability coverage is primary to a driver’s personal insurance. It’s designed to cover a driver’s liability for property damage and bodily injury of passengers and/or third parties.”).

²⁵³ Workshop Tr. at 75 (Ginger Jin). See also Xiang Hui, Maryam Saeedi, Zeqian Shen & Neel Sundaresan, *Reputation and Regulations: Evidence from eBay*, MGMT. SCI. (forthcoming, 2016), <http://pubsonline.informs.org/doi/abs/10.1287/mnsc.2015.2323> (finding that a buyer protection program complements the seller reputation badge and results in an efficiency gain that increases welfare by 4.7%).

²⁵⁴ *Id.* at 75-76 (Because “the platform guarantee can enhance people’s trust from day one,” the cold start issue becomes less of a problem if the platform supplies a guarantee.).

²⁵⁵ *Id.* at 76.

²⁵⁶ *Id.*

²⁵⁷ *Id.*

a new entrant or more established. Regardless of whether the platform is new or established, a platform guarantee can pose certain risks similar to moral hazard in insurance markets. As one panelist explained, a platform guarantee is “just like any insurance policy: it transforms the problem of using your own money to using someone else’s money. And that would open doors for users to take advantage of the system. . . . Now that they’re insured by the platform, they’re less vigilant in checking out the reputation system, for example.”²⁵⁸ Moreover, “[the] platform guarantee actually [c]ould attract some strategic sellers to enter, because the buyers now trust the platform and the low-quality sellers may have more incentive to enter the platform, which undermines the potential value of the platform guarantee.”²⁵⁹ Notwithstanding that platform guarantees could potentially result in some strategic behavior by users, all panelists generally agreed that such guarantees can and do benefit platform users by covering some gaps left by reputation mechanisms.

IV. Conclusion

Panelists generally agreed that reputation-rating systems and platform guarantees reduce information asymmetry in online and sharing economy markets. One panelist opined that “the fact that those markets exist and they grow exponentially is a testament to the fact that those systems seem to be doing reasonably good work, at least with respect to building an adequate level of trust.”²⁶⁰ Panelists also agreed that reputation rating systems and platform guarantees do not reduce information asymmetry to zero in sharing economy markets. There is evidence that issues such as the cold start problem or the reputation milking effect persist despite the fact that platforms generally have an incentive to ensure that users on the platform have a good experience.

Panelists disagreed about the benefits of moving from current “good” functioning reputation mechanisms to “perfect” ones,²⁶¹ and about whether regulation is necessary or desirable in reducing information asymmetry in sharing economy markets. In one panelist’s view, there are opportunity costs for platforms to improve already well-functioning reputation rating systems, and that it is difficult to determine whether platforms ought to deploy scarce resources toward “making marginal improvements to the reputation system or to other aspects of the platform.”²⁶² With regard to regulation, one commenter cautioned that “regulators should avoid prescriptive rules, and instead encourage companies and developers to continue to create innovative features that facilitate trust.”²⁶³

²⁵⁸ *Id.* at 76-77.

²⁵⁹ *Id.* at 76.

²⁶⁰ *Id.* at 77-78 (Chrysanthos Dellarocas). Another panelist explained that “when you look at the literature that people have written about [ratings systems], people say, ‘well look at eBay. Look how well eBay is doing. And could eBay exist without a well-functioning reputation system?’ And to a certain extent, I think that’s right.” *Id.* at 62 (Chris Nosko).

²⁶¹ *Id.* at 77 (Chrysanthos Dellarocas) (“[W]hether the solution that is optimal for the platform is also the optimal solution for a social planner . . . would be a second order effect.”).

²⁶² *Id.* at 79 (Andrey Fradkin).

²⁶³ Application Developers All. Comment at 2. Another panelist observed that whether regulation is necessary depends upon the object of regulation: if the goal is “to weed out the really bad transactions and the really bad actors, then reputation systems probably do a really good job of that,” but if the goal is to maximize social welfare, then the relevant question is how many transactions “are on the fence or on the border between being mediocre versus really bad?” Workshop Tr. at 78 (Chris Nosko). As a recent paper by the OECD’s Committee on Consumer Policy observed, “policy makers need more evidence and

Chapter Three: Competition, Consumer Protection, and Regulation in the Sharing Economy

I. Introduction

The Workshop examined competition, consumer protection, and regulatory issues posed by the rise of sharing economy platforms, exploring how regulators can pursue legitimate regulatory goals such as those relating to health, safety, or consumer protection, while avoiding regulations that may unnecessarily chill innovation, entry, and competition. The sharing economy can produce disruptive innovation that greatly benefits consumers. Platforms and suppliers, however, should not be permitted to engage in unfair or deceptive acts or practices simply because they are introducing innovative products or services. One panelist offered another perspective, suggesting that “many regulations . . . have come to burden innovation and become a formidable barrier to new forms of entry and entrepreneurialism.”²⁶⁴ Another suggested that appropriately tailored regulations could both protect consumers and the public and foster broad public acceptance of and participation in the sharing economy.²⁶⁵

analysis to determine how effective these mechanisms are in achieving consumer protection outcomes.” OECD, *Protecting Consumers In Peer Platform Markets: Exploring The Issues* (OECD Digital Economy Papers, No. 253, 2016), http://www.oecd-ilibrary.org/science-and-technology/protecting-consumers-in-peer-platform-markets_5jlwvz39m1zw-en. The OECD paper suggests two, inter-related issues for further work:

- How well are the initiatives put in place by peer platforms to build trust among consumers working? Can we assess the effectiveness of pre-screening and verification functions? What about the reputation and rating systems? How well do the guarantees, insurance programmes, and payment protections work? How effective are the community guidelines, and dispute resolution and redress systems? And how can policy makers ensure that these mechanisms are effective in protecting consumers and promoting informed choices?
- How do these types of trust-building mechanisms interface with existing consumer laws and other types of consumer protection and public safety regulations? How do they compare to other, more formal types of self-regulation, which often involves codes of conduct, accountability measures and enforcement mechanisms? To what extent can these initiatives be considered an effective substitute for consumer protection laws and regulatory oversight?

Id. at 23-24.

²⁶⁴ Workshop Tr. at 152 (Adam Thierer).

²⁶⁵ *See id.* at 94-95 (Catherine J.K. Sandoval). International discussions of the sharing economy have focused on the importance of consumer trust for broad acceptance and participation in the sharing economy. Indeed, the issue of consumer trust in the sharing economy was one of the main themes of the June 2016 OECD Ministerial on the Digital Economy. *See Trust in the Digital Economy*, OECD, <http://www.oecd.org/internet/ministerial/themes/trust/> (“Panel 3.1 Consumer Trust and Market Growth”). In addition, the OECD Competition Committee has examined possible advocacy and enforcement approaches to the emergence of sharing economy platforms, also discussing experiences in particular sectors such as financial services and legal services. *See Best Practice Roundtables on Competition Policy*, OECD, <http://www.oecd.org/daf/competition/roundtables.htm>. The International Competition Network (ICN), based on a broad survey it conducted with its member competition agencies, prepared a report on how antitrust agencies can successfully advocate competition considerations to regulatory and legislative entities that hinder disruptive innovations, including sharing economy platforms. *See Int’l Competition Network, ICN Special Project 2016: Government Advocacy and Disruptive Innovations*, ICN 2016 SINGAPORE, <http://www.internationalcompetitionnetwork.org/uploads/library/doc1094.pdf>.

Balancing these considerations can be challenging for state and local regulators. As part of its competition advocacy program, the Commission has already been active in providing advice to lawmakers and regulators considering how to amend their laws and regulations that apply to the sharing economy. Through that program, regulators can request the views of Commission staff regarding how proposed changes in laws and regulations could affect competition.²⁶⁶ In response to four such requests, the Commission staff has submitted letters offering its views regarding proposed regulations affecting platform-based for-hire transportation service.²⁶⁷

Chairwoman Ramirez has explained some of the underlying principles informing the advice provided by FTC staff in these advocacy letters:

[E]nforcers and policymakers have to strike a balance. We must allow competition and innovation in the form of these new peer-to-peer business models to flourish. At the same time, where necessary, targeted regulatory measures may be needed to ensure that these new business models have appropriate consumer protections; but they should be no greater than necessary to address those concerns.²⁶⁸

Toward these ends, the FTC staff advocacies have generally cautioned regulators “not to impose legacy regulations on new business models simply because they happen to fall outside of existing regulatory schemes.”²⁶⁹ In the Commission’s view, any necessary regulations “should be flexible enough to allow new forms of competition” and “narrowly tailored to the specific public policy goals that have been identified.”²⁷⁰

²⁶⁶ See Workshop Tr. at 6 (Maureen Ohlhausen) (“Upon request from a legislator, we can and frequently do provide neutral, unbiased analysis of the likely economic impact of pending legislation.”). Specific statutory authority for the FTC’s competition advocacy program is found in Sections 6(a) and (f) of the FTC Act, under which Congress authorized the FTC “[t]o gather and compile information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any person, partnership, or corporation engaged in or whose business affects commerce,” and “[t]o make public from time to time such portions of the information obtained by it hereunder as are in the public interest.” 15 U.S.C § 46(a), (f) (2015).

²⁶⁷ In the last few years, the Commission has submitted letters to four jurisdictions discussing the competitive effects of proposed regulations in the passenger-vehicle transportation services marketplace: Chicago, Illinois; Colorado; the District of Columbia; and Anchorage, Alaska. See Comment from FTC Staff to Brendan Reilly, Alderman, Chi. City Council (Apr. 15, 2014), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-honorable-brendan-reilly-concerning-chicago-proposed-ordinance-o2014-1367/140421chicagoridesharing.pdf; Comment from FTC Staff to Debbie Ossiander, Assembly Member, Anchorage Assembly (Apr. 19, 2013), https://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-comment-anchorage-assembly-member-debbie-ossiander-concerning-ao-no.2013-36-proposing-changes-regulatory-framework-licensing-and-permitting-taxicabs-limousines-and/130426anchoragecomment.pdf; Comment from FTC Staff to the Colo. Pub. Utils. Comm’n (Mar. 6, 2013), https://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-comment-colorado-public-utilities-commission-concerning-proposed-rulemaking-passenger/130703coloradopublicutilities.pdf; Comment from FTC Staff to the D.C. Taxicab Comm’n (June 7, 2013), https://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-comments-district-columbia-taxicab-commission-concerning-proposed-rulemakings-passenger/130612dctaxicab.pdf.

²⁶⁸ Ramirez, *supra* note 42, at 2.

²⁶⁹ *Id.* at 7.

²⁷⁰ *Id.* at 8.

This Chapter reviews broad topics concerning regulation of the sharing economy, summarizing at a high level the views presented by Workshop panelists and commenters.

II. Regulating the Sharing Economy: Central Themes

At the Workshop, participants expressed a variety of concerns and ideas regarding the complex issues surrounding government regulation of sharing economy providers. Panelists and commenters opined that, as in many industries, some amount of government regulation of the sharing economy is needed to protect consumers and the public from harm and to promote public goals. Workshop participants, however, also argued that unnecessary or misguided regulation could harm customers and competition in this dynamic, innovative sector. Others opined that certain features of sharing economy platforms, such as reputation review mechanisms, may serve to protect consumers and thereby reduce the role for government regulation.²⁷¹

Some participants suggested that regulators should exercise restraint, embrace flexibility, and avoid taking preemptive action based on the mere potential for harm. Several also cautioned that using regulations designed for traditional suppliers to govern sharing economy suppliers might, by design or by mistake, serve to protect incumbent competitors without actually benefiting the public.

Participants discussed the challenges of protecting the privacy of sharing economy participants’ data, particularly in light of the central role of transactional and reputational data in this space. They also emphasized the potential benefits of such data to government entities; for example, data generated from transactions on platforms such as Uber and Lyft could help municipalities better understand traffic flows and other issues of importance to their policymaking.

The remainder of this Chapter surveys some of the thoughts offered on these topics during the Workshop.

Balancing Objectives: Assessing whether and how to regulate platforms and participants in the sharing economy requires regulators to balance sometimes-competing objectives. One commenter identified the goal as “strik[ing] a balance between competition and consumer protection so that overall consumer welfare is optimized.”²⁷² Similarly, the New York City Taxi & Limousine Commission emphasized that “[b]alancing [its] regulatory goals and encouraging innovation and competition remains a priority.”²⁷³

Some Workshop participants focused on how regulation could impede innovation and entry by sharing economy platforms and suppliers. One commenter pointed out that incumbents seek “protectionist measures from local and state governments to prevent their markets from being disrupted

²⁷¹ See *supra* Chapter 2, pp. 38-40; see *infra* pp. 59-61 & Chapter 4, Section IV.A.2.

²⁷² Internet Ass’n Comment at 2. See also R Street Inst. Comment at 2 (while sharing economy platforms enhance competition, “consumer protections and safety are legitimate objectives.”).

²⁷³ N.Y.C. Taxi & Limousine Comm’n Comment at 4; Internet Ass’n Comment at 2 (pointing to particular considerations such as the benefits from the sharing economy and ways in which it may provide better consumer protection than traditional suppliers).

by ‘sharing economy’ services.”²⁷⁴ A report submitted by a foreign competition authority likewise emphasized the innovative nature of sharing economy marketplaces, and warned that regulations that prevent participation would cause “high losses” in competition and “negative repercussions on the welfare of the consumer.”²⁷⁵

Some Workshop participants, particularly those associated with incumbents, emphasized that traditional suppliers must satisfy a number of regulatory requirements and argued that failing to apply these requirements to sharing economy suppliers will undermine the realization of the goals underlying those regulations. One hotel industry panelist argued that traditional providers “follow a strict set of rules and regulations to ensure the safety and security of ... guests and communities,” and warned that “an unlevel playing field [] is compromising consumer safety, endangering the character and security of residential neighborhoods.”²⁷⁶ A former taxi industry regulator declared that “there is absolutely, positively no difference between taxis, limos, jitneys, Ubers, Lyfts” and that all should be subject to regulation for “basics” such as safety and consumer protection.²⁷⁷ These comments suggest that existing regulations also should be applied to new entrants because they provide services similar to those provided by traditional providers.²⁷⁸

A number of participants recognized the need for some regulation of the sharing economy, but said that such regulation, for various reasons, should differ in some respects from existing regulation.²⁷⁹ Some existing regulations, they argued, “were designed for different practices” and are now outdated and poorly suited for the sharing economy.²⁸⁰ Services provided in the sharing economy, they asserted, do not present the same sort of safety risks as services provided by traditional suppliers.²⁸¹ Indeed, one panelist emphasized that forty state and local governments “already have in place smart, forward-looking regulations that both ensure public safety and consumer protection, and embrace the innovations that Uber and others have introduced.”²⁸²

²⁷⁴ TechFreedom & Int’l Ctr. for Law & Econ. Comment at 2-3. *See also* Workshop Tr. at 151-52 (Adam Thierer).

²⁷⁵ CATALAN COMPETITION AUTH., *supra* note 12, at 11.

²⁷⁶ Workshop Tr. at 115 (Vanessa Sindors).

²⁷⁷ Workshop Tr. at 106, 121-22 (Matthew Daus).

²⁷⁸ *See generally infra* Chapter 4, Section III.B.

²⁷⁹ *See, e.g.*, Workshop Tr. at 87-88 (Arun Sundararajan) (describing how regulation should be tailored to reflect the use of trust mechanisms and the degree of professionalism of platform suppliers); *id.* at 94-97 (Catherine J.K. Sandoval) (describing how California regulated TNCs but tailored the insurance regulations to accommodate part-time TNC drivers, who do not need continuous commercial-level insurance coverage); *id.* at 103-04 (Ashwini Chhabra).

²⁸⁰ *Id.* at 156 (Sofia Ranchordás). *See also* Comput. & Comm’ns Indus. Ass’n Comment at 5 (noting that “regulators should focus on updating regulation across the board with an eye on encouraging a vibrant, competitive marketplace for all players”); Free State Found. Comment at 3 (“[s]haring economy platforms should be free to develop without the strictures of any new sector-specific regulations or older regulations designed for incumbent providers”); CHRISTOPHER KOOPMAN, MATTHEW MITCHELL & ADAM THEIRER, THE SHARING ECONOMY AND CONSUMER PROTECTION REGULATION: THE CASE FOR POLICY CHANGE 19 (2014), <http://mercatus.org/sites/default/files/Koopman-Sharing-Economy.pdf> (arguing against simply “rolling old regulatory regimes onto new technologies and sectors”).

²⁸¹ *See, e.g.*, Internet Ass’n Comment at 5 (“although opponents of ridesharing platforms often cite to safety concerns as a ground for regulation, there are several reasons why ridesharing can be considered *safer* than taking a taxi”).

²⁸² Workshop Tr. at 103 (Ashwini Chhabra).

One panelist argued that, while “we should regulate the sharing economy” to address legitimate concerns, we should “prioritize[]” the innovations it offers.²⁸³ One commenter opined that regulators should “pursu[e] the least competition-restrictive means in serving a legitimate public policy goal.”²⁸⁴ This approach comports with approaches suggested in FTC advocacy letters and by FTC Chairwoman Ramirez that policymakers should “strike a balance” by designing restrictions on platforms that are “no greater than necessary” to solve a specific problem.²⁸⁵ Two commentators propose adoption of a “regulatory framework that simultaneously allows the key efficiencies the platforms seek to offer and assures that they adequately address the rights of consumers and third parties.”²⁸⁶

Level Playing Field: Various Workshop participants suggested that regulations should be the same for all suppliers competing in a particular sector, regardless of whether a supplier is a platform-based new entrant or a traditional supplier.²⁸⁷ Several pointed out that sharing economy providers might gain unfair advantages simply by bypassing existing regulations that apply to incumbents.²⁸⁸ Keynote speaker Commissioner Catherine J.K. Sandoval of the California Public Utilities Commission criticized a “school of thought” holding that sharing economy providers should offer service first and then seek regulatory approvals, arguing that it is “illegal” and undermines “public confidence.”²⁸⁹

A separate set of rules for legacy competitors and new sharing economy entrants could potentially give one group a competitive advantage derived not from superior foresight, skill, or business acumen, but from unequal regulatory treatment. Commissioner Ohlhausen put the point clearly in her opening remarks when she cautioned that the government “picking winners by creating a regulatory differential in favor of new entrants should be just as undesirable as retaining regulations that deter meaningful entry.”²⁹⁰

Suggesting that all market participants competing in a particular sector should face the same or similar regulatory requirements raises the question of what those regulations ought to be. It also raises

²⁸³ *Id.* at 155 (Sofia Ranchordás).

²⁸⁴ Comput. & Commc’ns Indus. Ass’n Comment at 2; *see also* Internet Ass’n Comment at 4-5.

²⁸⁵ Ramirez, *supra* note 42, at 2.

²⁸⁶ Edelman & Geradin, *supra* note 111, at 295.

²⁸⁷ *See, e.g.*, Workshop Tr. at 153 (Adam Thierer) (“there’s always this need about leveling the playing field in sectors that are undergoing comprehensive technological transformation”); Taxicab, Limousine & Paratransit Ass’n First Comment at 1 (arguing that incumbents “should be allowed to follow these new looser or more flexible rules” applied to new entrants); Workshop Tr. at 108, 121 (Matthew Daus); Workshop Tr. at 115-16 (Vanessa Sindors).

²⁸⁸ Nat’l Employment Law Project Comment at 2; *see also* Partnership for Working Families Comment at 2 (urging the FTC to “[e]nsure a level regulatory playing field between on-demand companies and established industries in their sectors.”).

²⁸⁹ Workshop Tr. at 97 (Catherine J.K. Sandoval) (criticizing the “offer first, license later” approach). Two commentators have dubbed this strategy of beginning operations without meeting regulatory requirements “spontaneous private deregulation,” arguing that this approach has been increasing over the last decade, particularly in the sharing economy. Benjamin G. Edelman & Damien Geradin, *Spontaneous Deregulation: How to Compete with Platforms that Ignore the Rules*, HARV. BUS. REV., Apr. 2016, at 4, <https://archive.harvardbusiness.org/cla/web/pl/product.seam?c=43839&i=43841&cs=03cd442117f246b7350f7c772465a3ab>. *See also* Brishen Rogers, *The Social Costs of Uber*, 82 U. CHI. L. REV. DIALOGUE 85, 87 (2015), https://lawreview.uchicago.edu/sites/lawreview.uchicago.edu/files/uploads/Dialogue/Rogers_Dialogue.pdf.

²⁹⁰ Workshop Tr. at 8 (Maureen Ohlhausen); *see also id.* at 12-13 (Liran Einav) (noting that sharing economy platforms may be able to “bypass regulation, whether it’s good regulation or bad regulation” and observing that although bypassing bad regulations could increase efficiency, bypassing good regulations could result in consumer harm).

the question of whether differences between traditional suppliers and platform-based suppliers may warrant different regulatory treatment.²⁹¹ The answer to those questions will necessarily turn on assessments of market conditions and regulatory needs specific to each sector in which traditional suppliers and platform suppliers compete. Nevertheless, some Workshop participants suggested that regulators look to achieve regulatory parity by choosing the least restrictive measures needed to achieve the regulatory goal, one advocating that regulators “level the playing field by ‘deregulating down’ . . . , not by ‘regulating up.’”²⁹²

Protectionism and Regulatory Capture: Some Workshop participants expressed concern that regulators might apply existing regulation to sharing economy providers due to industry capture of regulators, industry control of regulatory boards, or error.²⁹³ In any case, the result would benefit incumbent suppliers and harm consumers and sharing economy suppliers. One commenter claimed that incumbents often “seek out protectionist measures from local and state governments to prevent their markets from being disrupted by ‘sharing economy’ services.”²⁹⁴ Another commenter argued that these efforts are frequently successful because “[s]tate or local licensing boards often fall victim to regulatory capture,” and entrants may lack resources “to fight back.”²⁹⁵ Such regulations can have lasting impact, as it may be difficult to convince officials “to remove anticompetitive policies in the face of resistance from incumbents.”²⁹⁶

Potential entrants therefore may face a “‘Brother, May I’ scenario,” described by Commissioner Ohlhausen, in which a prospective entrant “effectively has to request permission from the incumbent firms” to offer its services in the marketplace.²⁹⁷ By increasing the costs entrants face, protectionist policies may “push new entrants out of the market or at least decrease their competitiveness.”²⁹⁸ Moreover, even “well-meaning restrictions that have the unintended consequence of creating anticompetitive barriers” can work to favor incumbents and impede entry,²⁹⁹ and thus potentially prevent consumers from realizing the benefits associated with disruptive innovation.

²⁹¹ See *infra* Chapter 4, Section III.B.

²⁹² See, e.g., Mercatus Ctr. Comment at 7; see also Workshop Tr. at 153 (Adam Thierer); Free State Found. Comment at 3 (advocating that regulators “remove unnecessary regulations wherever they apply”).

²⁹³ See, e.g., Mercatus Ctr. Comment at 5-6 (describing “the phenomenon of ‘regulatory capture’” and discussing the explanations that have been advanced for it); TechFreedom & Int’l Ctr. for Law & Econ. Comment at 3; Workshop Tr. at 8 (Maureen Ohlhausen).

²⁹⁴ TechFreedom & Int’l Ctr. for Law & Econ. Comment at 3. Senator Cruz described how “[o]ver and over again, government is sought out as an ally of incumbent businesses to restrict competition from new entrants.” Letter from Senator Ted Cruz to Edith Ramirez, Chairwoman, Fed. Trade Comm’n 1 (July 17, 2015), https://www.ftc.gov/system/files/documents/public_comments/2015/07/02030-96648.pdf; see also Info. Tech. & Innovation Found. Comment at 2 (“incumbents often retreat behind state and local laws and regulations that shelter them”).

²⁹⁵ Comput. & Commc’ns Indus. Ass’n Comment at 3-4.

²⁹⁶ Info. Tech. & Innovation Found. Comment at 3.

²⁹⁷ Workshop Tr. at 7-8; (Maureen Ohlhausen); see also Maureen K. Ohlhausen & Gregory P. Luib, *Brother, May I?: The Challenge of Competitor Control over Market Entry*, 4 J. ANTITRUST ENFORCEMENT 111, 111 (Apr. 2016), https://www.ftc.gov/system/files/documents/public_statements/801861/150917brothermayi.pdf.

²⁹⁸ Free State Found. Comment at 9.

²⁹⁹ Info. Tech. & Innovation Found. Comment at 3.

Regulatory Restraint and Flexibility: Workshop participants emphasized that the rapidly evolving nature of the sharing economy requires a regulatory approach flexible enough to allow adaptation to novel and potentially unforeseen situations. Some emphasized that regulators should appreciate the uncertainty surrounding regulatory decisions arising from factors such as the early stage of development of the sharing economy, the speed and variability with which it is growing and evolving, the novel tools used for transacting and building trust, and various consumer protection and other regulatory concerns.³⁰⁰ Commissioner Ohlhausen has said that, because the predictions of regulators regarding developing markets “can be spectacularly wrong,” “adopting a posture of regulatory humility is a general principle of good government.”³⁰¹

Some participants suggested various ways in which regulators could enhance flexibility in decision-making so that it would be easier to accommodate new concerns that arise and to eliminate unnecessary regulations.³⁰² For example, the Catalan Competition Commission advised that in the sharing economy “[t]he standards which set the ‘rules of the game’ should be the result of techniques of regulation and viewpoints broader and more flexible than the traditional.”³⁰³ Chairwoman Ramirez has advised that “[r]egulatory frameworks . . . should be flexible enough to allow new forms of competition,” and further that they should be “reviewed and revised periodically to facilitate and encourage the emergence of new forms of competition.”³⁰⁴ A commenter suggested that regulatory flexibility is needed because “[i]t is not possible for regulators to keep up with the pace of technology.”³⁰⁵ One panelist explained that regulatory flexibility requires regulators to be cautious and perhaps decide not to regulate “right away” when a potential problem presents itself.³⁰⁶ Another panelist agreed, suggesting that regulators should “let it play [out] for a few years, see how things evolve.”³⁰⁷

At the Workshop, Commissioner Ohlhausen explained that “[m]isguided government regulation can be the barrier to innovation,” and therefore “regulators should tread carefully, particularly when

³⁰⁰ See, e.g., Workshop Tr. at 17-18 (Liran Einav); *id.* at 156 (Sofia Ranchordás); *id.* at 154-55 (Ashwini Chhabra) (“[W]e should be very careful about the kind of public policies we try to craft today. Because none of us have a crystal ball that can perfectly predict the exciting future that lies ahead.”). See generally Sofia Ranchordás, *Does Sharing Mean Caring? Regulating Innovation in the Sharing Economy*, 16 MINN. J.L. SCI. & TECH. 1 (2015).

³⁰¹ Maureen K. Ohlhausen, Commissioner, Fed. Trade Comm’n, Room to Run: Regulatory Responses to Dynamic Changes in the Organization of Work, Remarks before the Am. Action Forum 2-3 (July 30, 2015), https://www.ftc.gov/system/files/documents/public_statements/691841/150730roomtorunspeech.pdf. See also Workshop Tr. at 8 (Maureen Ohlhausen).

³⁰² See, e.g., Workshop Tr. at 156-57 (Sofia Ranchordás). See generally Sofia Ranchordás, *Innovation-Friendly Regulation: The Sunset of Regulation, the Sunrise of Innovation*, 55 JURIMETRICS 201 (2015); Ranchordás, *supra* note 300.

³⁰³ CATALAN COMPETITION AUTH., *supra* note 12, at 13. See also Comput. & Commc’ns Indus. Ass’n Comment at 2 (“regulations should be adaptive and flexible”).

³⁰⁴ Ramirez, *supra* note 42, at 8.

³⁰⁵ Comput. & Commc’ns Indus. Ass’n Comment at 7. See also CALinnovates Comment at 5 (“[t]hese technologies are adapting and adjusting to the market quicker than regulation can keep up”).

³⁰⁶ Workshop Tr. at 156 (Sofia Ranchordás). See also Free State Found. Comment at 10 (“Preemptive regulatory action based on conjectural harms leads to inefficient economic outcomes and often unintended consequences.”); The Travel Tech. Ass’n Comment at 4 (“We do not believe that preemptive measures relating to platform liability and consumer risk are necessary.”). *But see* Ranchordás, *supra* note 302, at 210 (“While delayed or excessive regulation might have a negative impact on the innovation process, inadequate and hasty approval of innovation is also problematic.”); Workshop Tr. at 48 (Weyl) (arguing that “it’s wrong to say that uncertainty should lead [] to forbearance” by regulators).

³⁰⁷ Workshop Tr. at 48 (Liran Einav).

considering hypothetical, rather than demonstrated, consumer harm.”³⁰⁸ A commenter argued that “preemptive regulation” was “most likely to stymie innovation among marketplace participants and decrease competition by increasing the barriers to entry in the marketplace.”³⁰⁹ Along similar lines, another panelist advocated for a “permissionless innovation” approach, under which “new innovators are free to experiment”³¹⁰ with innovative business models “without first coming and seeking a blessing from” government.³¹¹ He explained that it is not necessary to have “a preemptive regulatory policy in place to solve [every] problem,” noting that “to the extent harms develop or accidents happen, we deal with them after the fact through other mechanisms.”³¹² He joined a comment that argued that “ex post remedies,” including “[p]rivate insurance, contracts, torts and product liability law, [and] antitrust enforcement,” can be superior to “traditional regulation,” since the former have the “benefit of not discouraging innovation or competition.”³¹³

Other panelists, however, articulated different viewpoints, one explaining that “it’s wrong to say that uncertainty should lead [regulators] to forbearance,” because regulators may not “have the luxury of saying . . . ‘Let’s wait and see.’”³¹⁴ He thought that there could be “dynamic reasons” for an activist policy.³¹⁵ Another panelist expressed the view that, once regulation is deemed necessary, a flexible regulator should allow for the possibility that regulations may need to be adapted more frequently to reflect changing circumstances, for example by including “sunset clauses to limit the potential for regulations to outlive their usefulness.”³¹⁶ Yet another panelist urged the development of “best practices” that “encourage innovation and personal empowerment.”³¹⁷

FTC Role: Workshop participants weighed in regarding possible roles that the FTC could play, both in advising on the competitive effects of state and local regulation³¹⁸ and in exercising its authority to protect consumers against unfair methods of competition and unfair and deceptive acts and practices. Regarding the FTC’s exercise of its enforcement authority under Section 5 of the FTC Act, Commissioner Ohlhausen opened the Workshop by assuring attendees that the event was not intended “as a prelude to some planned, big, enforcement push in [the sharing economy],” and rather emphasized the Commission’s competition advocacy program.³¹⁹ Commissioner Sandoval welcomed this

³⁰⁸ Workshop Tr. at 8 (Maureen Ohlhausen).

³⁰⁹ The Travel Tech. Ass’n Comment at 4-5. *See also* Free State Found. Comment at 11-12.

³¹⁰ Workshop Tr. at 154 (Adam Thierer).

³¹¹ *Id.* at 153-54. *See also id.* at 180 (Adam Thierer) (arguing that “successful innovation comes from entrepreneurs [acting] without first coming and seeking a blessing from somebody before they did something interesting and innovative”).

³¹² *Id.* at 153-54.

³¹³ Mercatus Comment at 7.

³¹⁴ Workshop Tr. at 48 (Glen Weyl).

³¹⁵ *Id.*

³¹⁶ *Id.* at 155 (Sofia Ranchordás) (advocating “experimentation in the field so that new entrepreneurs can experiment with new forms of sharing economy practices, but also experimenting with the rules themselves”).

³¹⁷ *Id.* at 112 (David Hantman).

³¹⁸ *See supra* note 267 (listing four advocacies that the FTC has submitted on these issues).

³¹⁹ Workshop Tr. at 6 (Maureen Ohlhausen) (“Interest in new developments in the economy by the FTC does not automatically portend a flurry of future enforcement actions.”).

statement.³²⁰ Several commentators agreed that the FTC should “tread lightly” in this area.³²¹

A number of participants urged the FTC to use its powers to oppose anticompetitive regulations, to “be on the lookout for de facto incumbency protection schemes,”³²² “push back” against such measures,³²³ and “advocate against anticompetitive barriers to sharing economy companies.”³²⁴ One commenter declared that the FTC should “[b]lock the institution or application of rules that are justified in the name of public safety or welfare but are applied unevenly and primarily as a protection of monopolists or entrenched market participants.”³²⁵

Self-Regulation, Reputation Mechanisms, and Branding: Workshop participants and commenters considered ways in which the sharing economy platforms are able to engage in “self-regulation,” *i.e.*, to assume functions traditionally undertaken by government regulators.³²⁶ One panelist explained that self-regulation is “simply the performing of regulatory activities by entities other than the government.”³²⁷ This panelist observed that a sharing economy platform “is mediating transactions between two trading parties,” allowing for “the possibility that [the platform] can take on some of the regulatory responsibility that we have had to give to different entities in the past.”³²⁸ Several commenters suggested caution, one urging that “regulators tread extremely lightly in this emerging sector, allowing firms and industries to self-regulate to the extent practical.”³²⁹

³²⁰ *Id.* at 98 (Catherine J.K. Sandoval) (“I thought it was a very important that Commissioner Ohlhausen repeated that the FTC is not, at this point, contemplating enforcement action.”).

³²¹ Info. Tech. & Innovation Found. Comment at 2 (“As Commissioner Ohlhausen indicated in her opening remarks at the Workshop, it is important that the FTC tread lightly in this emerging area of the economy so as not to impede innovations that are generating enormous value for consumers.”); Internet Association Comment at 8 (“urg[ing] agencies such as the FTC to show restraint and to place weight on the attributes of the sharing economy that benefit and empower consumers”); TechFreedom & Int’l Ctr. for Law & Econ. Comment at 9.

³²² CALinnovates Comment at 2-3 (suggesting that the “FTC can act as a sort of super cop or appellate court to review anew actions”). *See also* TechFreedom & Int’l Ctr. for Law & Econ. Comment at 3.

³²³ Info. Tech. & Innovation Found. Comment at 3.

³²⁴ Consumer Elec. Ass’n Comment at 4.

³²⁵ CALinnovates Comment at 2.

³²⁶ Chairwoman Ramirez acknowledged the potential utility of self-regulation when she observed that “robust self-regulation [is] an important tool for consumer protection that potentially can respond more quickly and efficiently than government regulation.” Edith Ramirez, Chairwoman, Fed. Trade Comm’n, Opening Remarks at the FTC Workshop on Enforceable Codes of Conduct: Protecting Consumers Across Borders, at 2 (Nov. 29, 2012), https://www.ftc.gov/sites/default/files/documents/public_statements/opening-remarks-commissioner-edith-ramirez/121129codesconductremarks.pdf.

³²⁷ Workshop Tr. at 158 (Arun Sundararajan). The concept of self-regulation also can extend to situations in which “the government delegates to a third party the implementation” of a regulation. Molly Cohen & Arun Sundararajan, *Self-Regulation and Innovation in the Peer-to-Peer Sharing Economy*, 82 U. CHI. L. REV. DIALOGUE 116, 124 (2015), https://lawreview.uchicago.edu/sites/lawreview.uchicago.edu/files/uploads/Dialogue/Sundararajan_Cohen_Dialogue.pdf.

³²⁸ Workshop Tr. at 158-59 (Arun Sundararajan). The panelist continued by noting that “demonstrated enforcement capabilities and the perception of legitimacy are essential for the success of self-regulatory organizations.” *Id.* at 159. Further, to exercise control, platforms must be able to impose “sanctions . . . [that are] costlier than the benefits of misbehavior.” Cohen & Sundararajan, *supra* note 327, at 129.

³²⁹ Andrew Moylan & R.J. Lehmann, *Five Principles for Regulating the Peer Production Economy* 4 (R Street Policy Study No. 26, 2014), *attached to* R Street Inst. Comment.

Indeed, panelists hypothesized that Uber and Airbnb have been successful because their business models allow them to “substitute[] private regulation for public regulation,”³³⁰ potentially establishing nationwide regulatory standards that do not vary across states and localities.³³¹ A panelist suggested that in coming years there will be “platform competition between different local regulators,” including platforms acting as local regulators and “the local governments that traditionally regulated these services.”³³²

Several panelists, however, questioned the effectiveness of a “self-regulation mechanism” under all circumstances, with a former chair of the New York City Taxi Commission indicating that “not everything[] can be delegated for self-regulation.”³³³ He emphasized that to ensure that the platform properly performs the function delegated to it, there must be “a real enforcement mechanism,” including recordkeeping, inspections, and “strict fines.”³³⁴ Another panelist agreed that self-regulation should be limited to certain situations, describing it as merely “part of the tool kit” to use if it “works to address certain types of [] market failures ... more effectively,” and warned that it should not be seen as “a panacea for all the harms.”³³⁵

The question of monitoring a platform’s conduct was addressed by one panelist who advocated a form of self-regulation involving “delegated regulation through data,” under which regulators affirmatively delegate responsibility for regulatory enforcement to platforms.³³⁶ Their performance might be monitored by government using “audited evidence,” rather than simply turning data over to the government.³³⁷ He saw significant benefits from delegated regulation through data, which in his view would facilitate effective enforcement in a variety of areas, from collecting taxes to preventing discrimination.³³⁸ The same Workshop participant noted that “*de facto* we have already been delegating things [to platforms] that we used to look to the government” to do.³³⁹ He has suggested that self-regulation, if effective, could decrease burdens on regulatory bodies, with responsibility assigned to platforms that could be well-positioned to monitor conduct and flexibly respond to participants’ needs.³⁴⁰

As discussed in Chapter 2, reputation ratings systems and other trust mechanisms can benefit consumers by providing them with information regarding suppliers and reducing the need for regulation.³⁴¹ Moreover, these systems are evolving and “play alongside of many other types of social

³³⁰ Workshop Tr. at 25 (Joshua Gans).

³³¹ *See id.* at 21-22 (Glen Weyl).

³³² *Id.* at 22.

³³³ *Id.* at 127 (Matthew Daus).

³³⁴ *Id.* at 126-27.

³³⁵ *Id.* at 165 (Maurice Stucke); *see also id.* at 166 (Arun Sundararajan) (“nobody is suggesting . . . nongovernmental self-regulation is a panacea”); *id.* at 155 (Sofia Ranchordás) (“I don’t think that self-regulation is able to solve all the problems”).

³³⁶ *Id.* at 159 (Arun Sundararajan).

³³⁷ *Id.*

³³⁸ *Id.* *See also* Cohen & Sundararajan, *supra* note 327, at 117, 129-32.

³³⁹ Workshop Tr. at 85 (Arun Sundararajan). *See generally* Cohen & Sundararajan, *supra* note 327.

³⁴⁰ *See* Cohen & Sundararajan, *supra* note 327, at 129-32.

³⁴¹ *See supra* Chapter 2, Section III.A.2. *See generally* Cohen & Sundararajan, *supra* note 327, at 128-29.

mechanisms and legal mechanisms to try to enforce good behavior.”³⁴² Others saw the potential in utilizing such mechanisms, but emphasized the importance of ensuring that platform incentives align with the achievement of regulatory goals, as well as regulatory oversight to confirm that a platform’s regulatory mechanisms are in fact serving the intended function.³⁴³ One regulator opined that “[w]hile reputation-based systems can help business owners with customer service issues, they are not a substitute for regulatory oversight.”³⁴⁴

One Workshop participant emphasized the importance of the type of market failure that a platform is attempting to address, highlighting “the relative effectiveness of platform-based regulation” in solving market failures resulting from “information asymmetry.”³⁴⁵ In contrast, he suggested that platforms may not be “best suited to internalize” “market failure that come[s] from externalities” – *i.e.*, costs imposed or benefits conferred on third parties, such as “congestion . . . or neighbor noise.”³⁴⁶ Separately, he and a coauthor suggested that “[s]ome form of third-party regulatory intervention” may be required to address the latter type of market failures.³⁴⁷ Other commentators agreed that there may be strong justifications for “legal interventions [that] seek[] to address circumstances in which companies impact noncustomers and the public at large,” and therefore supported restricting conduct that “breach[es] laws and regulations that address externalities and other important policy objectives.”³⁴⁸

Privacy Concerns Raised by Collection and Storage of Participants’ Data: As central parts of their operations, platforms collect, retain, and process large amounts of data regarding their participants and their transactions, including ratings, written reviews, profiles, login credentials, payment information, consumers’ geolocation(s), and consumer preferences, among other details. One panelist observed that often a “platform itself is controlling” a “significant volume” and “significant variety of data” that can have “significant value.”³⁴⁹ Such data collection can generate concerns about the privacy of platform participants.³⁵⁰

³⁴² Workshop Tr. at 169 (Adam Thierer).

³⁴³ See generally *supra* Chapter 2, Section III.A.4.

³⁴⁴ N.Y.C. Taxi & Limousine Comm’n Comment at 5.

³⁴⁵ Workshop Tr. at 87-88 (Arun Sundararajan).

³⁴⁶ *Id.* at 87.

³⁴⁷ Cohen & Sundararajan, *supra* note 327, at 122; see also Workshop Tr. at 88 (Arun Sundararajan).

³⁴⁸ Edelman & Geradin, *supra* note 111, at 295, 309.

³⁴⁹ Workshop Tr. at 161 (Maurice Stucke). Apart from privacy issues involving the handling of information by platforms, there may also be concerns about how consumer participants in sharing economy transactions handle personal data. As an OECD paper points out, there is an “additional challenge for peer platform markets, which is the responsibilities that are also placed on the peers for protecting the data they obtain about each other in the course of their transactions. Relying on these non-professional actors to take appropriate steps to avoid compromise of consumer data may present an even greater risk of consumer detriment.” OECD, *supra* note 263, at 15. The OECD paper does note that, in some cases, sharing economy business models might be structured to mitigate such concerns, explaining that “the business model that many peer platforms use, where the platform acts as the payment intermediary, may reduce the number of entities with access to a peer consumer’s payment information: instead of both the driver and the payment mechanisms having access to the consumer’s payment card, only the platform has the information.” *Id.* at 16.

³⁵⁰ See, e.g., Workshop Tr. at 165 (Sofia Ranchordás) (“I think we as consumers do really care about how privacy is being managed.”); Dambrine, Jerome & Ambrose, *supra* note 219 (examining privacy issues arising in collecting data for reputation systems).

One panelist suggested that privacy was the “best example” of problems “inherent to” sharing economy platforms.³⁵¹ She suggested viewing platforms as having a “fiduciary relationship” with users when it comes to a consumer’s information, which includes “a duty to act in the best interests of the consumer,” as there is “a relationship based on trust and based on economic dependency.”³⁵² She noted, however, that the nature of this duty would often be unclear because “platforms are in the middle of two peers, and it’s not clear whether they’re acting in benefit of the consumer or of the provider.”³⁵³ Another panelist criticized the use of the fiduciary concept, pointing out that fiduciary relationships arise in very limited circumstances and arguing that such an approach would impose undue burdens on platforms and their participants.³⁵⁴

Some Workshop participants cautioned that efforts to protect privacy would impose costs on sharing economy marketplaces and participants, noting in particular that these platforms rely extensively on the collection of large amounts of information about users through transactions and trust mechanisms.³⁵⁵ Similarly, one panelist described the need to “balance” the “fundamental tension” between the need for “large amounts of information” for effective trust mechanisms and the need for privacy and data security on the platform.³⁵⁶

The Commission has emphasized the importance of this balance through its prior work.³⁵⁷ Indeed, honoring consumer privacy does not mean consumers’ data should never be disclosed. Rather, platforms may mitigate privacy concerns by clearly and conspicuously disclosing what information will remain private and what will not, enabling consumers to make informed decisions. However, if a platform misrepresents the extent to which it will make information public,³⁵⁸ or fails to reasonably secure its systems or data,³⁵⁹ the platform could be subject to a Commission action under Section 5 of the FTC

³⁵¹ *Id.* at 156 (Sofia Ranchordás); *but cf.* Kennedy, *supra* note 91, at 14 (“[C]oncerns about privacy and security are not unique to platforms.”).

³⁵² Workshop Tr. at 171 (Sofia Ranchordás).

³⁵³ *Id.* at 172.

³⁵⁴ *See id.* at 172-73 (Adam Thierer).

³⁵⁵ Dambrine, Jerome & Ambrose, *supra* note 219, at 3 (“some of the steps needed for users to build and maintain their reputation on a sharing economy platform can create privacy challenges”). *See also* Application Developers All. Comment at 2 (“Paradoxically, many features in apps that result in greater consumer safety and trust in one way, may generate concerns about data collection in another.”); Workshop Tr. at 173 (Adam Thierer).

³⁵⁶ Workshop Tr. at 173 (Adam Thierer) (The sharing economy “is built on data and the free flow thereof. And its success is inextricably tied up with the fact that if you want people to have more trust in these platforms, it obviously is going to necessitate the sharing of a lot of information.”).

³⁵⁷ *See infra* notes 361-65 and accompanying text.

³⁵⁸ For example, Commission settled an action it brought against a company alleging that the company violated Section 5 by misleading consumers when it solicited reviews for doctors from consumers without disclosing adequately that these reviews would be publicly posted on the internet. *See Practice Fusion, Inc.*, No. C-4591 (Fed. Trade Comm’n Aug. 15, 2016), <https://www.ftc.gov/system/files/documents/cases/160816practicefusiondo.pdf> (consent order).

³⁵⁹ *See FTC v. Wyndham Worldwide Corp.*, 799 F.3d 236 (3d Cir. 2015) (holding that the FTC could challenge certain data security practices as “unfair” under 15 U.S.C. § 45(a)). For example, Commission settled actions it brought against two companies alleging that they violated Section 5 by misrepresenting the security of their mobile apps and by failing to secure the transmission of consumers’ sensitive personal information via the apps. *See Credit Karma, Inc.*, No. C-4480 (Fed. Trade Comm’n Aug. 13, 2014) (consent order), <https://www.ftc.gov/system/files/documents/cases/1408creditkarmado.pdf>; *Fandango, LLC*, No. C-4481 (Fed. Trade Comm’n Aug. 13, 2014), <https://www.ftc.gov/system/files/documents/cases/>

Act. Section 5 applies fully to the sharing economy and authorizes law enforcers to address privacy concerns, as several participants stated.³⁶⁰

Previous reports produced by the Commission and staff, including the Privacy Report,³⁶¹ the Internet of Things Report,³⁶² and the Big Data Report,³⁶³ provide further guidance on privacy issues, particularly in the online context. For example, the Commission has provided guidance as to how “long-standing Fair Information Practice Principles of notice, choice, access, accuracy, data minimization, security, and accountability should apply” in contexts such as the internet of things.³⁶⁴ Similarly, Commission staff has issued business education materials on privacy and data security.³⁶⁵ Through these materials, the Commission and staff have advised that companies address privacy concerns by, for example, adopting and implementing clear and conspicuous privacy disclosures that provide transparency to consumers, respect consumer choice, maintain reasonable security, and limit the provision of identifiable data consistent with the company’s disclosures.

Provision of Platform Data to Governments: Although recognizing the importance of data privacy, several panelists emphasized that sharing data with government entities can help government officials address questions regarding the impact of the sharing economy and formulate effective regulations.³⁶⁶ One panelist suggested a partnership between cities and these platforms so that cities

[140819fandangodo.pdf](https://www.ftc.gov/enforcement/cases-proceedings/142-3156/asustek-computer-inc-matter) (consent order). *See also* ASUSTeK Computer Inc., No. C-4587 (Fed. Trade Comm’n July 28, 2016), <https://www.ftc.gov/enforcement/cases-proceedings/142-3156/asustek-computer-inc-matter>.

³⁶⁰ The Travel Tech. Ass’n Comment at 4 (explaining that FTC and state and local regulators “already possess the requisite ability to address [any] unfair or deceptive businesses practices”); Geoffrey Manne & Ben Sperry, *Innovation Death Panels and Other Economic Shortcomings of the White House Proposed Privacy Bill*, TRUTH ON THE MKT. (Mar. 18, 2015), <https://truthonthemarket.com/2015/03/18/innovation-death-panels-privacy-bill/>, attached to Int’l Ctr. for Law & Econ. Comment (“To the extent that they exist, many privacy harms online are currently dealt with by the marketplace itself, bolstered by the Federal Trade Commission under its Section 5 authority as well as state oversight.”).

³⁶¹ FED. TRADE COMM’N, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE (2012), <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf>.

³⁶² FED. TRADE COMM’N, INTERNET OF THINGS: PRIVACY AND SECURITY IN A CONNECTED WORLD (2015), <https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-staff-report-november-2013-workshop-entitled-internet-things-privacy/150127iotrpt.pdf>.

³⁶³ FED. TRADE COMM’N, BIG DATA: A TOOL FOR INCLUSION OR EXCLUSION? UNDERSTANDING THE ISSUES (2016), <https://www.ftc.gov/system/files/documents/reports/big-data-tool-inclusion-or-exclusion-understanding-issues/160106big-data-rpt.pdf>.

³⁶⁴ FED. TRADE COMM’N, *supra* note 362, at 19, 27-46.

³⁶⁵ These guidance pieces include publications such as Start with Security, Mobile App Developers: Start with Security, Marketing Your Mobile App, the Business Blog, and Careful Connections: Building Security in the Internet of Things. *Start with Security: A Guide For Business*, FED. TRADE COMM’N (June 2015), <https://www.ftc.gov/tips-advice/business-center/guidance/start-security-guide-business>; *Mobile App Developers: Start with Security*, FED. TRADE COMM’N (Feb. 2013), <https://www.ftc.gov/tips-advice/business-center/guidance/mobile-app-developers-start-security>; *Marketing Your Mobile App: Get It Right from the Start*, FED. TRADE COMM’N (Apr. 2013), <https://www.ftc.gov/tips-advice/business-center/guidance/marketing-your-mobile-app-get-it-right-start>; *Business Blog*, FED. TRADE COMM’N, <https://www.ftc.gov/news-events/blogs/business-blog>; *Careful Connections: Building Security in the Internet of Things*, FED. TRADE COMM’N (Jan. 2015), <https://www.ftc.gov/tips-advice/business-center/guidance/careful-connections-building-security-internet-things>.

³⁶⁶ *See, e.g.*, Workshop Tr. at 128 (Brooks Rainwater); Partnership for Working Families Comment at 2; Workshop Tr. at 122 (Matthew Daus); *id.* at 128-29 (Ashwini Chhabra).

could “actually delve in and look at that data across the country.”³⁶⁷ In that panelist’s view, such data sharing could shed light on whether Uber drivers or Airbnb hosts are providing services part-time and therefore perhaps should be “regulated in a different way than those” providing services full-time.³⁶⁸ Other commenters went further, with one stating that platforms should be required to “supply municipalities and the public with the data needed to fully understand the impact of their operations and develop effective regulatory responses.”³⁶⁹ Another commenter cautioned that “more data is needed about on-demand companies’ impact on consumers” and that “[p]olicy-makers cannot simply rely on the information provided by these companies.”³⁷⁰

As with many approaches to regulation in the sharing economy, requiring platforms to share data with local governments may have costs as well as benefits. Platform representatives maintained that while they try to provide data to government, they must “weigh [benefits to government] against privacy concerns of [their] users.”³⁷¹ Several panelists emphasized that provision of anonymized data could still be very helpful to cities and at the same time protect the privacy interests of platform participants.³⁷² Uber’s representative described a program his company has for providing data to cities on pickup and drop-off locations at the zip-code level.³⁷³ Airbnb’s representative agreed with the need for platforms to provide data that could shed light on whether hosting should be viewed as a primarily personal or primarily commercial activity,³⁷⁴ a topic explored more fully in Chapter 4.³⁷⁵

III. Conclusion

The perspectives presented at the Workshop and in comments received underscore the challenge of regulating sharing economy platforms and suppliers. On the one hand, the disruptive innovation introduced by sharing economy platforms can greatly benefit consumers, and regulators should avoid imposing unnecessary regulatory burdens that could prevent or impede their success. On the other hand, appropriately tailored regulatory measures may help protect consumers, promote public safety, and meet other legitimate public goals. Some Workshop participants supported balancing these competing goals by limiting regulation to targeted measures no broader than needed to achieve the regulatory goals, an approach similar to that taken by the Commission. Determining what regulations are necessary to meet legitimate regulatory needs, however, poses a variety of complex issues.

³⁶⁷ Workshop Tr. at 120 (Brooks Rainwater). *See also id.* at 128 (explaining that with more data sharing by platforms, “cities would feel a lot more comfortable knowing what’s happening on the ground,” such as “show[ing] that these ridesharing services could actually bring added value beyond” what taxis provide).

³⁶⁸ *Id.* at 120.

³⁶⁹ Partnership for Working Families Comment at 2.

³⁷⁰ Nat’l Employment Law Project Comment at 3.

³⁷¹ Workshop Tr. at 129 (Ashwini Chhabra).

³⁷² *See, e.g., id.* at 144 (David Hantman) (underscoring the need to protect personal data, but agreeing that Airbnb “should be sharing more anonymized data”); *id.* at 122 (Matthew Daus) (explaining that “we don’t want everyone’s personal data,” and that anonymized data should be very helpful); *id.* at 129 (Ashwini Chhabra).

³⁷³ *Id.* at 128-29 (Ashwini Chhabra). However, a commenter reported that Uber was fined over \$7 million for failing to provide the state of California with data on rider accessibility as required. Nat’l Employment Law Project Comment at 1-2.

³⁷⁴ Workshop Tr. at 144 (David Hantman).

³⁷⁵ *See infra* Chapter 4, Section III.B.

Some Workshop participants, particularly those representing established suppliers competing with sharing economy suppliers, supported imposing a single set of standards on all suppliers to ensure a level playing field and protect consumers and the public. Other participants, however, emphasized that regulations should be tailored to address the particular concerns posed by platform-based suppliers. In part, they argued that reputation systems and other trust mechanisms provided by platforms, as well as self-regulation, can significantly lessen regulatory concerns. In addition, some expressed skepticism about the efficacy of certain existing regulation. Participants suggested flexibility in regulatory approach, and urged caution in adopting new regulations for activity that is evolving as participants experiment and tinker with new business models.

Workshop participants briefly discussed the privacy concerns that arise in the sharing economy, citing the large amounts of information platforms assemble, particularly about participants and their transactions. A few participants highlighted the tension between privacy concerns and the information flows that are central to the operation of the sharing economy. Participants also recognized that the Commission’s authority under Section 5 of the FTC Act applies to the sharing economy and allows the Commission to address various consumer protection and privacy concerns. Finally, participants underscored the importance for policymakers to obtain access to data on economic activity conducted over platforms, both for municipal planning and for assessing particular regulatory issues presented in specific sectors.

Chapter Four: Regulation of Sharing Economy Suppliers in the Transport and Lodging Sectors

I. Introduction

This Chapter reviews potential regulatory issues raised by the entry of platform providers in the short-term lodging and for-hire transportation sectors. Section II discusses how these platforms facilitate transactions in their respective sectors, the benefits they provide participants, and the competitive impact they have had and continue to have in these marketplaces.

Section III examines challenges that regulators encounter in these two sectors. They face competing arguments: incumbents contend that new entrants compete unfairly by avoiding regulatory requirements necessary to protect consumers and the public; platforms argue that differences in their operations justify different regulatory treatment. This section also considers whether the platform-based suppliers in these two sectors provide services similar in important respects to those provided by incumbent suppliers.

Section IV addresses concerns that have arisen in each of these sectors in several specific policy areas, focusing particularly on consumer protection and public safety issues. This discussion also considers how platform trust mechanisms and platform intervention mechanisms such as insurance address regulatory objectives. The section then discusses how sharing economy providers attend to certain public goals, such as tax collection, preservation of residential areas, and service to traditionally underserved groups or areas. While not usually associated with competition issues, regulation directed to these goals can affect the ability of platform suppliers to enter sharing economy marketplaces and compete with each other and with traditional suppliers providing similar goods or services.

II. Competitive Impacts in the Short-Term Lodging and For-Hire Transport Sectors

The Workshop highlighted the dramatic impact that sharing economy platforms and the providers using them have had in the short-term lodging and for-hire transport sectors. By providing services to enable transactions between those supplying and buying services and goods in these marketplaces, platforms enable new suppliers to enter the market.³⁷⁶ These platform-based suppliers compete with traditional suppliers and may keep costs low by leveraging underutilized assets and providing services through innovative business models. Operating through transportation network companies (“TNCs”),³⁷⁷ drivers using their personal vehicles have taken large portions of the for-hire transport business away from traditional taxis and have expanded the market for for-hire transportation service. The number of Airbnb hosts renting out their residences also has expanded rapidly, potentially serving previously

³⁷⁶ See *supra* Chapter 1, Section II (explaining that platform suppliers and consumers are both consumers of transactional services provided by the platform).

³⁷⁷ As explained above, TNCs are platforms that facilitate the provision of for-hire transportation service. See *supra* pp. 12-13.

unmet needs and expanding the market, but also potentially taking business from hotels and bed-and-breakfasts.³⁷⁸

For-Hire Transport

Workshop participants described how TNCs, such as Uber and Lyft, facilitate the provision of for-hire transport by drivers who typically use their personal cars and set their own hours.³⁷⁹ Generally, potential drivers register with the TNC, which vets them to determine whether they meet the TNC’s standards governing matters such as driving record, licensing, and vehicle condition.³⁸⁰ Drivers may have regulatory standards to meet as well.³⁸¹ TNCs permit drivers to use their personal cars rather than acquire a dedicated vehicle and/or a license to operate a taxi.

Drivers accepted by the platform install the TNC’s app on their smartphones and turn it on when they are available to pick up fares.³⁸² Passengers install the TNC’s app on their smartphones, check it to see whether there are available drivers nearby, and send a request to the TNC.³⁸³ The app can enable passengers to get an estimate of the fare once they input a destination.³⁸⁴ The TNC alerts nearby drivers, one of whom accepts and picks up the passenger. The app sets the fare and facilitates payment, with the passenger’s payment typically split between the driver and the TNC. Riders and drivers rate each other after the ride.

TNCs described how they reduce the costs of entry, increase the supply of drivers for hire, and improve the quality of services.³⁸⁵ They explained how increased entry benefits consumers, who can obtain quicker pickups, superior riding experiences, lower fares, and better service in traditionally underserved areas.³⁸⁶ Reliance on smartphones can make it easier, safer, and more reliable for a

³⁷⁸ See *infra* notes 410-415 and accompanying text.

³⁷⁹ See generally Uber Comment; Lyft Comment; Lyft Comment Attachment. See also Workshop Tr. at 103-05 (Ashwini Chhabra). This is a general description; details may vary by company.

³⁸⁰ See Lyft Comment Attachment at 3.

³⁸¹ Workshop Tr. at 93-97 (Catherine J.K. Sandoval); Workshop Tr. at 103-04 (Ashwini Chhabra).

³⁸² See Lyft Comment Attachment at 6.

³⁸³ See *id.*

³⁸⁴ See, e.g., *How do I get a fare estimate for a vehicle option?*, UBER, <https://help.uber.com/h/cc1efc16-df15-47f3-8057-61c2b75ea529>.

³⁸⁵ See Lyft Comment at 1; Uber Comment at 2; Lyft Comment Attachment. A recent paper finds Uber drivers spend a higher percentage of their time and drive a higher share of miles with a passenger in their cars than do traditional taxi drivers, suggesting that TNCs may be a more efficient source of supply compared to traditional taxis. Judd Cramer & Alan B. Krueger, *Disruptive Change in the Taxi Business: The Case of Uber*, 106 AM. ECON. REV. 177 (2016).

³⁸⁶ See Lyft Comment at 1; Uber Comment at 2; Lyft Comment Attachment. Economists have recently begun efforts to quantify the consumer benefits that flow from entry by ride sharing companies. One working paper uses data from Uber covering four cities to estimate that UberX service generated \$6.8 billion in consumer surplus in the United States in 2015. Peter Cohen et al., *Using Big Data to Estimate Consumer Surplus: The Case of Uber* (Nat’l Bureau of Econ. Research, Working Paper No. 22627, 2016), <http://www.nber.org/papers/w22627>. Another working paper uses data from taxi rides to infer that \$2.4 billion per year in consumer surplus would be generated if taxis used the matching technology employed by ride sharing companies. Nicholas Buchholz, *Spatial Equilibrium, Search Frictions and Efficient Regulation in the Taxi Industry* (Aug. 22, 2016) (unpublished manuscript),

passenger to find a ride.³⁸⁷ Drivers can work when their schedules permit.³⁸⁸ Their earnings can provide primary incomes, supplement other income, or carry them through periods of unemployment.³⁸⁹

Benefits may also extend beyond the gains associated directly with TNC transactions. For example, one commenter provided research indicating that taxis may have improved their service in response to new competition from TNCs.³⁹⁰ In addition, the availability of TNC drivers may reduce drunk driving accidents.³⁹¹ In its comment to the Commission, Uber presented excerpts from reports, filings, statements, and other documents prepared by U.S. and foreign national competition authorities and others generally recognizing the benefits associated with the introduction of platform-based, for-hire transport service.³⁹²

Not surprisingly, large-scale entry of new platform-based suppliers into the for-hire transport and short-term lodging sectors has had a dramatic impact on competitive conditions in these sectors. Not only has total supply expanded dramatically, but the variety of choices has increased as well. One report suggested that Uber has helped reduce cab fares around the world.³⁹³

In the for-hire transport sector, the Uber platform alone is estimated to have registered 162,000 for-hire drivers in the United States.³⁹⁴ TNC drivers are now reportedly a leading source of supply of for-hire transportation service in a number of cities. One panelist contended that they are “taking [the market] over completely,”³⁹⁵ and a taxi association commenter expressed concern that “small business taxicab and limousine operators . . . are no match for Uber’s global market power.”³⁹⁶

http://scholar.princeton.edu/sites/default/files/nbuchholz/files/taxi_draft.pdf. Despite taking different analytical approaches, the findings in these two working papers appear qualitatively consistent.

³⁸⁷ Uber Comment at 1-2.

³⁸⁸ A study by a Princeton professor and Uber’s head of policy research found that “Uber’s driver-partners fall into three roughly equal-sized groups: driver-partners who are partnering with Uber and have no other job (38 percent), driver-partners who work full-time on another job and partner with Uber (31 percent), and driver-partners who have a part-time job apart from Uber and partner with Uber (30 percent).” Hall & Krueger, *supra* note 113, at 10.

³⁸⁹ *See id.* at 11. Indeed, various commentators have suggested that the rapid rise of Uber, Airbnb, and other sharing economy platforms is in significant part attributable to poor economic conditions that require people to drive for hire and rent rooms to earn an adequate income. *See, e.g.,* Daniel E. Rauch & David Schleicher, *Like Uber, but for Local Government Law: The Future of Local Regulation of the Sharing Economy*, 76 OHIO ST. L.J. 901, 910 (“[T]he Great Recession was a crucial catalyst. On the ‘consumer’ side, the crash raised thriftiness and imposed credit constraints, creating new interest in renting over owning. At the same time, unemployment and underemployment created a large pool of ‘gig’ workers available to drive for Uber, sell odd-jobs through TaskRabbit, or otherwise work in the sharing economy.”) (footnotes omitted). However, one panelist argued that this “slack” in the economy will continue even as the economy improves. Workshop Tr. at 30-31 (Liran Einav).

³⁹⁰ *See* Wallsten (Tech. Policy Inst.) Comment.

³⁹¹ *See* Mothers Against Drunk Driving Comment at 1.

³⁹² Uber Comment, Appendix at 7-22.

³⁹³ Jill Ward, *Uber Effect Sees Taxi Fares Tank Around the World, Deutsche Says*, BLOOMBERG (May 19, 2016, 7:52 AM), <http://www.bloomberg.com/news/articles/2016-05-19/uber-effect-sees-taxi-fares-tank-around-the-world-deutsche-says>.

³⁹⁴ Hall & Krueger, *supra* note 113, at 2.

³⁹⁵ Workshop Tr. (Matthew Daus) at 121. In San Francisco, the largest cab company said it would seek bankruptcy protection, citing competition from Uber and Lyft as key contributors. Joe Fitzgerald Rodriguez, *Yellow Cab to File for Bankruptcy*, S.F. EXAMINER (Jan. 6, 2016, 1:00 AM), <http://www.sfexaminer.com/yellow-cab-to-file-for-bankruptcy/>; Brian

Short-Term Lodging

Airbnb and other lodging platforms facilitate the rental of private residences on a short-term basis.³⁹⁷ Generally, prospective hosts register a residence with a platform – providing descriptions, pictures, available dates, and other information useful to prospective renters.³⁹⁸ The platform provides the app, links to relevant information, advice regarding how to advertise and provide lodging services, and some rules for participants using the site.³⁹⁹ The platform may inform prospective hosts of potentially applicable regulations, but leaves compliance up to the hosts.⁴⁰⁰

Prospective renters also can register as users with a short-term lodging platform, allowing them to search, identify options, contact hosts, and reach a rental agreement.⁴⁰¹ The platform receives and holds the rental payment, disbursing the amount after deducting its fee and only after the renter has arrived.⁴⁰² The platform also provides an opportunity for both hosts and renters to rate their transactions.

As with TNCs, short-term lodging platforms greatly reduce the barriers to supplying short-term rental lodging.⁴⁰³ Hosts have low costs of supply because they can rent out their own homes, and can obtain access to a wide pool of potential customers simply by listing their residences.⁴⁰⁴ Renters benefit from the increased supply and variety of lodgings. A host’s residence may be cheaper than a hotel room and better meet the renter’s individual preferences, such as an interest in staying in a residential neighborhood with few or no traditional hotels. Moreover, as Airbnb reports, spillover benefits may

Solomon, *Uber’s First Casualty? San Francisco’s Largest Taxi Company Filing for Bankruptcy*, FORBES (Jan. 6, 2016, 4:37 PM), <http://www.forbes.com/sites/briansolomon/2016/01/06/ubers-first-casualty-san-franciscos-largest-taxi-company-filing-for-bankruptcy/>; Will Oremus, *The End of the Taxi Era*, SLATE (Jan. 8, 2016, 5:58 PM), http://www.slate.com/articles/technology/technology/2016/01/yellow_cab_in_san_francisco_is_just_the_beginning_uber_s_war_on_cabs_is.html.

³⁹⁶ Taxicab, Limousine & Paratransit Ass’n Second Comment, at 2. *See also* Solomon, *supra* note 395; Oremus, *supra* note 395.

³⁹⁷ This is a general description; details may vary by company.

³⁹⁸ *See generally* Airbnb Comment. *See also* Workshop Tr. at 117-18 (David Hantman); *Share Your Home*, ONEFINESTAY, <http://www.onefinestay.com/homes/register/>; *List Your Property*, HOMEAWAY, <https://www.homeaway.com/info/lyp>.

³⁹⁹ *See generally* Airbnb Comment. *See also* Workshop Tr. at 117-18 (David Hantman); *Share Your Home*, *supra* note 398; *List Your Property*, *supra* note 398.

⁴⁰⁰ *See, e.g.,* New York, NY, AIRBNB, <https://www.airbnb.com/help/article/868/new-york--ny> (listing types of regulations that potentially could apply to hosting activity in New York City and providing links to various departments’ web pages providing information on such regulations). *But cf.* Hotel Ass’n of N.Y.C. First Comment at 9-10 (claiming that Airbnb’s disclosures on its website are “misleading” statements that “hid[] the truth” regarding regulations that would likely preclude hosting, and that it is possible to provide much clearer information regarding relevant restrictions).

⁴⁰¹ The process through which the match is made can differ among platforms and change over time, based on the platform’s assessments of how to shape the market. *See generally* Fradkin, *supra* note 100. For example, HomeAway changed its algorithm for determining which homes are the best match for the query, drawing complaints from listing owners who experienced a reduction in inquiries. *See* Monica Nickelsburg, *Frustrated Homeowners Say Expedia’s HomeAway Changes ‘Dramatically Impact’ Their Rentals*, GEEKWIRE (May 4, 2016, 10:49 AM), <http://www.geekwire.com/2016/frustrated-homeowners-say-expedias-homeaway-changes-dramatically-impact-their-rentals/>.

⁴⁰² Workshop Tr. at 117 (David Hantman).

⁴⁰³ *See* Airbnb Comment at 2-3.

⁴⁰⁴ *See id.* at 3; Workshop Tr. at 117-18 (David Hantman).

result from the availability of lower-priced offerings through Airbnb, with travelers visiting cities more often and for longer stays, or spending some of their cost-savings on restaurants or entertainment.⁴⁰⁵

In the short-term lodging sector, platforms such as Airbnb have had an enormous impact on the number and variety of short-term rentals in many cities across the country and around the world. Some analyses suggest that previously many of the customers served would not otherwise have rented lodgings, and that competitive impacts have been concentrated on lower-end hotels and bed-and-breakfasts.⁴⁰⁶ For a period, some major hotel industry leaders downplayed the degree of competition between their businesses and Airbnb.⁴⁰⁷ Airbnb’s representative at the Workshop expressed a similar view, stating that Airbnb is “not competing” with hotels,⁴⁰⁸ and that, despite Airbnb’s success, “hotels are as full as they’ve ever been, and are able to charge historically high rates.”⁴⁰⁹

There is evidence, however, that Airbnb hosts currently place competitive pressure on hotels and bed-and-breakfasts.⁴¹⁰ Commenter Hudson Area Lodging reported that “more than a dozen legitimate B&Bs have closed since Airbnb’s inception in 2008.”⁴¹¹ Another commenter, the Hotel Association of New York City, commissioned a study that concluded New York City hotels lost nearly 2.9 million room nights, or over \$450 million, to Airbnb hosts over a one-year period.⁴¹² Indeed, some industry

⁴⁰⁵ See Airbnb Comment at 1-3.

⁴⁰⁶ MKM Partners, *Airbnb Short-Sheeting Midtier Hotels*, BARRON’S (Nov. 19, 2015), <http://www.barrons.com/articles/airbnb-short-sheeting-midtier-hotels-1447947825>. An economics paper estimates Airbnb’s impact on Texas hotels using econometric methods, and finds that “the sharing economy is making inroads by successfully competing with . . . incumbent firms,” particularly lower-priced hotels and those not serving many business travelers. See Georgios Zervas, Davide Proserpio & John W. Byers, *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry* 1 (B.U. Sch. Mgmt., Research Paper No. 2013-16, 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2366898.

⁴⁰⁷ One article collected statements by hotel executives in conferences in 2015, showing that they generally viewed the competitive impact of Airbnb as limited, although a few argued that the ability of platform hosts to sidestep regulation hurt their businesses. Lydia DePillis, *Hotels Don’t Actually Appear to Be That Scared of Airbnb – Yet*, WASH. POST (Feb. 26, 2016), <https://www.washingtonpost.com/news/wonk/wp/2016/02/26/hotels-dont-actually-appear-to-be-that-scared-of-airbnb-yet/>. See also Austin Carr, *What Hotel Operators Really Think of Airbnb*, FAST COMPANY (Mar. 20, 2014, 1:39 PM), <http://www.fastcompany.com/3027976/what-hotel-operators-really-think-of-airbnb> (quoting statements by hotel industry executives in 2014 suggesting that they were not concerned by Airbnb’s rise and ambitions).

⁴⁰⁸ Workshop Tr. at 119 (David Hantman). See also Alison Griswold, *Airbnb is Becoming a Real Threat to the Hotel Business in Big US Cities*, QUARTZ (Dec. 29, 2015), <http://qz.com/582553/airbnb-is-becoming-a-real-threat-to-the-hotel-business-in-big-us-cities/> (“Despite [its] rapid growth, Airbnb has maintained that it is not competitive with traditional hotels so much as complementary.”).

⁴⁰⁹ Workshop Tr. at 113 (David Hantman).

⁴¹⁰ Griswold, *supra* note 408 (describing Airbnb as a competitive threat to hotels, at least in the near future).

⁴¹¹ Hudson Area Lodging Comment at 2. See also Fla. Bed & Breakfast Inns Comment at 1; Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 1; Pa. Ass’n of Bed & Breakfast Inns Comment at 1.

⁴¹² Press Release, Hotel Ass’n of N.Y.C., *Airbnb’s \$2 Billion Negative Impact on Lodging Industry and NYC Economy* (Oct. 30, 2015), <http://www.hanyc.org/news/airbnbs-2-billion-negative-impact-on-lodging-industry-and-nyc-economy/>; HVS CONSULTING & VALUATION, *AIRBNB AND IMPACTS ON THE NEW YORK CITY LODGING MARKET AND ECONOMY* (2015), <http://www.hanyc.org/wp-content/uploads/2015/11/HVS-Impact-Study-FINAL-Airbnb-and-the-NYC-Lodging-Market-11-05-15.pdf> (report prepared for Hotel Ass’n of N.Y.C.).

sources report that some hotels are opening to compete directly with Airbnb’s offerings,⁴¹³ learning how to adopt some of Airbnb’s business strategies,⁴¹⁴ and others are even listing their available rooms on Airbnb.⁴¹⁵

III. Regulatory Challenges in the Short-Term Lodging and For-Hire Transport Sectors

A. Regulatory Fairness

Traditional suppliers in both the short-term lodging and for-hire transport sectors have argued that the competition they face from platform-based suppliers, described in the previous section, is unfair, because they must meet regulatory requirements that platform-based operators either ignore or are not required to meet.⁴¹⁶ Commentators have described this lack of regulatory observance as “spontaneous private deregulation,” and detailed the difficulties it poses for incumbents.⁴¹⁷

Hotels and bed-and-breakfasts have repeatedly called for regulators to set standards applicable to all participants to create a level playing field. A hotel industry panelist asserted that “a competitive market means that everyone plays by the same rules,” for example “to protect consumer safety, and security, and the integrity of neighborhoods and communities.”⁴¹⁸ She maintained that the failure to enforce such requirements would prevent the achievement of regulatory goals and create an unfair competitive advantage for hosts using Airbnb or similar platforms.⁴¹⁹ One bed-and-breakfast association explained that its members would be disadvantaged if competing properties “are not required to comply with legitimate regulatory mandates.”⁴²⁰ Others expressed similar concerns that lack of regulation created an uneven playing field.⁴²¹

⁴¹³ See Sarah Schmalbruch, *A New Type of Hotel Is Upping Its Game to Compete with Airbnb*, BUS. INSIDER (Aug. 21, 2015, 1:16 PM), <http://www.businessinsider.com/cool-new-extended-stay-hotels-2015-7> (“A whole new crop of long term hotels are popping up, and they’re setting their sights on competing with rental sites like Airbnb.”).

⁴¹⁴ See *What Hotels Can Learn from Airbnb & How They Can Compete*, HIGHER LEVEL SOFTWARE, <http://www.high-level-software.com/what-hotels-can-learn-from-airbnb-how-they-can-compete/>.

⁴¹⁵ See Sarah Kessler, *To Fill Rooms, Hotels Are Turning to Airbnb*, FAST COMPANY (Dec. 14, 2015, 8:30 AM), <http://www.fastcompany.com/3054570/behind-the-brand/to-fill-rooms-hotels-are-turning-to-airbnb>.

⁴¹⁶ Am. Hotel & Lodging Ass’n Comment at 1; Workshop Tr. at 115 (Vanessa Sindors). See also Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 1 (PAII “is concerned about matters of fairness and safety” that have arisen “in the short-term rental market over the past few years.”).

⁴¹⁷ Edelman & Geradin, *supra* note 289, at 4; Rogers, *supra* note 289, at 85. Some argue that platforms can make use of this user base to influence regulatory action. See, e.g., Matt Stempeck, *Are Uber and Facebook Turning Users into Lobbyists?*, HARV. BUS. REV. (Aug. 11, 2015), <https://hbr.org/2015/08/are-uber-and-facebook-turning-users-into-lobbyists>.

⁴¹⁸ Workshop Tr. at 143 (Vanessa Sindors).

⁴¹⁹ *Id.* at 115-16. See also Am. Hotel & Lodging Ass’n Comment at 1; Hotel Ass’n of N.Y.C. First Comment at 1; Hudson Area Lodging Comment at 1; Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 2; Pa. Ass’n of Bed & Breakfast Inns Comment at 1.

⁴²⁰ Fla. Bed and Breakfast Inns Ass’n Comment at 1.

⁴²¹ See, e.g., Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 1; Pa. Ass’n of Bed & Breakfast Inns Comment at 1.

Taxi operators likewise have argued that the competitive success of TNCs is due at least in part to the ability of TNC drivers to avoid regulatory burdens that they bear.⁴²² According to Workshop participants⁴²³ and commentators,⁴²⁴ TNC drivers enjoy an advantage because they are able to enter marketplaces without obtaining the requisite regulatory clearances that taxi operators must obtain, and to operate until regulators intervene (at which time a user base already has been established). One commenter asserted that, due to Uber’s lobbying clout, “new entrants are able to operate under a different and more flexible set of regulations than incumbent operators.”⁴²⁵ Moreover, when jurisdictions act to regulate TNCs and their drivers, participants argued, more lenient regulations for TNC drivers may be inadequate to achieve regulatory objectives and may unfairly burden taxi drivers.⁴²⁶

In explaining the California Public Utility Commission’s rulemaking proceedings relating to TNCs and their drivers,⁴²⁷ Commissioner Sandoval described a “back and forth” pattern between TNCs and regulators, in which “unlawful” operation by TNCs resulted in regulators obtaining cease-and-desist orders, followed by regulation and enforcement.⁴²⁸ As in California, legislators and regulators in other jurisdictions have taken action to regulate TNCs and their drivers, in order to satisfy regulatory goals. Uber reported that 40 jurisdictions had taken such action, which it described as “smart regulations.”⁴²⁹ Lyft also stated that “[p]olicymakers at all levels of government have invested a tremendous amount of time and effort in crafting regulations to accommodate this new industry.”⁴³⁰ Taxi industry representatives, however, have expressed concerns that the protections are inadequate.⁴³¹

⁴²² See, e.g., Workshop Tr. at 107, 120-23 (Matthew Daus); Taxicab, Limousine & Paratransit Ass’n First Comment at 1-2.

⁴²³ Taxicab, Limousine & Paratransit Ass’n First Comment at 1-2; see also Nat’l Limousine Ass’n Comment at 1, 5.

⁴²⁴ See Edelman & Geradin, *supra* note 289, at 4; Rogers, *supra* note 289, at 85.

⁴²⁵ Taxicab, Limousine & Paratransit Ass’n Second Comment at 2.

⁴²⁶ See, e.g., Workshop Tr. at 107, 121-23 (Matthew Daus); Taxicab, Limousine & Paratransit Ass’n First Comment at 4-7.

⁴²⁷ Press Release, Cal. Public Utils. Comm’n, CPUC Establishes Rules for Transportation Network Companies (Sept. 19, 2013), <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K132/77132276.PDF>; Tomio Geron, *California Becomes First State to Regulate Ridesharing Services Lyft, Sidecar, UberX*, FORBES (Sept. 19, 2013, 3:40 PM), <http://www.forbes.com/sites/tomiogeron/2013/09/19/california-becomes-first-state-to-regulate-ridesharing-services-lyft-sidecar-uberx/>.

⁴²⁸ Workshop Tr. at 97 (Catherine J.K. Sandoval). Uber, for example, has been subject to cease-and-desist orders and heavy fines for operating without permission of the Pennsylvania Public Utilities Commission and failing to comply with California TNC regulations. See Daniel Moore, *Uber Fined Record \$11.4 Million by State Public Utility Board*, PITT. POST-GAZETTE (Apr. 21, 2016, 11:54 PM), <http://www.post-gazette.com/business/tech-news/2016/04/21/Uber-fined-11-4-million-by-state-Public-Utility-Commission-pennsylvania/stories/201604210168> (one commissioner explaining the record fine by stating that “Uber has engaged in the most unprecedented series of willful violations of commission orders and regulations in the history of this agency,” including defying a cease-and-desist order); Douglas MacMillan, *Uber Bows to \$7 Million Fine in California*, WALL ST. J.: DIGITS (Jan. 14, 2016, 8:43 PM), <http://blogs.wsj.com/digits/2016/01/14/uber-bows-to-7-6-million-fine-in-california/> (reporting that Uber paid fine imposed for violating state law requiring reporting of various information).

⁴²⁹ Workshop Tr. at 103-04 (Ashwini Chhabra).

⁴³⁰ Lyft Comment at 1.

⁴³¹ See, e.g., Workshop Tr. at 107-08, 121-22 (Matthew Daus); MATTHEW W. DAUS & PASQUALINO RUSSO, ONE STANDARD FOR ALL: CRIMINAL BACKGROUND CHECKS FOR TAXICAB, FOR-HIRE, AND TRANSPORTATION NETWORK COMPANY (TNC) DRIVERS 2-6 (2015), *attached to* Russo Comment; Taxicab, Limousine & Paratransit Ass’n First Comment; Nat’l Limousine Ass’n Comment (describing deficiencies in the regulation of TNC drivers).

These new regulations are set against a backdrop of extensive state and local regulation of taxis, which the Commission has studied extensively, producing, among other things, a major report published in 1984.⁴³² Taxi regulations include traditional economic regulations such as entry restrictions limiting the number of vehicles or firms; fare regulation; minimum standards for drivers, vehicles, and service quality; and mandatory service to the disabled or in disadvantaged areas.⁴³³ With regard to entry restrictions, no panelist or commenter argued that TNCs or taxis ought to be subject to a system prevalent in many cities where the local authority strictly limits the number of licenses or “medallions” available to potential drivers. Regarding fare regulation, participants recognized that technological developments have enabled companies like Uber and Lyft to “protect against inflated fares” by providing “transparency of fare rate . . . and recorded trip routes,” potentially reducing the need for such regulation.⁴³⁴ Moreover, one commenter pointed to regulations mandating taxi fares that exceed the average charge by TNC drivers and thereby would harm consumers.⁴³⁵ The lack of support for entry restrictions and fare setting for TNCs is consistent with the views of FTC staff, who concluded in 1984 that, even in the traditional taxi industry, “restrictions on entry, minimum fare controls, and restrictions on ride-sharing . . . reduce rather than increase efficiency.”⁴³⁶

B. Similarities and Differences Between Traditional and Platform Suppliers

Similarities and differences between platform suppliers and traditional suppliers in the for-hire transport and short-term rental sectors may help determine whether regulators should extend or tailor existing regulations to sharing economy participants, or if aspects of sharing economy platforms limit the need for such regulation. Participants and commenters generally report that platform suppliers in both sectors are typically individuals or small entities, who are collectively numerous and diverse. Sharing economy suppliers also generally employ personal assets, residences and personal automobiles, and work as drivers or hosts part-time as a sideline. One Workshop panelist suggested that platform suppliers “blur the lines between personal and professional,” and noted that it has always been

⁴³² See MARK W. FRANKENA & PAUL A. PAUTLER, BUREAU OF ECON., FED. TRADE COMM’N, AN ECONOMIC ANALYSIS OF TAXICAB REGULATION 15-28 (1984), <https://www.ftc.gov/sites/default/files/documents/reports/economic-analysis-taxicab-regulation/233832.pdf> [hereinafter FTC TAXI REPORT].

⁴³³ See generally *id.* at 15-28.

⁴³⁴ Uber Comment at 2.

⁴³⁵ TechNet Comment at 2-3. Uber’s use of surge pricing – increasing prices in times of high demand – has been criticized as potentially confusing and harming consumers. See, e.g., Dara Kerr, *Detest Uber’s Surge Pricing? Some Drivers Don’t Like It Either*, CNET (Aug. 23, 2015, 8:00 AM), <http://www.cnet.com/news/detest-ubers-surge-pricing-some-drivers-dont-like-it-either>. In some cities, Uber now provides the customer with the cost of the ride including the surge factor upfront. See generally Press Release, Uber, Upfront Fares: No Math and No Surprises (June 23, 2016), <https://newsroom.uber.com/upfront-fares-no-math-and-no-surprises/>; Helen Zhao, *Uber is Making Surge Pricing More Transparent — But a Little Less Obvious*, L.A. TIMES (June 24, 2016, 3:08 PM), <http://www.latimes.com/business/technology/la-fi-tn-uber-surge-20160624-snap-story.html>. The Workshop did not address surge pricing, except in brief references from taxi industry representatives asserting that the fare flexibility reflected in surge pricing provides an unfair advantage to platform-based drivers. See Workshop Tr. at 139 (Matthew Daus).

⁴³⁶ FTC TAXI REPORT, *supra* note 432, at 65.

considered personal activity when individuals “give[] people rides” or “accommodate[] people in our homes.”⁴³⁷

Workshop participants observed that the services offered by TNC drivers are similar in important respects to those provided by taxis and limousines, particularly with regard to consumer protection and public safety considerations, such that they raise some similar regulatory issues. How TNC drivers and platforms operate, however, may create differences in the potential need for and shape of regulations. Taxi industry participants maintained that TNC drivers are essentially the same as taxi drivers. One panelist echoed arguments of regulators and taxi associations, declaring that TNCs provide “transportation for hire” no different from “taxis, limos,” and other for-hire transport services.⁴³⁸ Some commenters agreed, with one stating that “TNCs are just like many other companies used by consumers to arrange for for-hire passenger vehicle service. All companies recruit drivers, market for passengers who need immediate transportation service, dispatch drivers to pick up passengers, and charge passengers for rides.”⁴³⁹ Some Workshop participants argued that TNC drivers obtained an unfair competitive advantage by evading taxi regulations or complying with lesser standards for background checks and other requirements.⁴⁴⁰ The New York City Taxi & Limousine Commission said simply that such services are “for-hire service and . . . should be regulated as such.”⁴⁴¹

Uber and similar platforms dispute these contentions, generally arguing that they are technology companies that do not themselves provide a transport service but instead facilitate the provision of transport services by individual drivers.⁴⁴² They also have pointed out that TNC drivers differ from taxis in that they arrange rides via smartphones rather than via street hails or telephone dispatch,⁴⁴³ and work mostly part-time.⁴⁴⁴ They argue that coordinating rides through smartphones provides an opportunity for greatly increased efficiency.⁴⁴⁵ Another participant suggested that TNCs also may reduce safety concerns because they monitor rides – keeping track of the identity of the driver and passenger and where they go.⁴⁴⁶

⁴³⁷ Workshop Tr. at 85-86 (Arun Sundararajan). See also SUNDARARAJAN, *supra* note 12, at 141-42.

⁴³⁸ Workshop Tr. at 106 (Matthew Daus). See also New York City Taxi & Limousine Comm’n Comment at 1-2.

⁴³⁹ Taxicab, Limousine & Paratransit Ass’n First Comment at 2. See also Nat’l Limousine Ass’n Comment at 1.

⁴⁴⁰ See, e.g., Taxicab, Limousine & Paratransit Ass’n First Comment at 1-2; Workshop Tr. at 107-08, 139 (Matthew Daus); DAUS & RUSSO, *supra* note 431.

⁴⁴¹ N.Y.C. Taxi & Limousine Comm’n Comment at 2.

⁴⁴² *Uber Guidelines for Law Enforcement Authorities*, UBER, <https://www.uber.com/legal/guidelines-for-law-enforcement> (“Uber is a technology company that has developed an app that connects users (riders) with driver partners who provide transportation to the user.”); Uber Comment at 1 (describing Uber as an app-based technology).

⁴⁴³ Workshop Tr. at 124 (Ashwini Chhabra).

⁴⁴⁴ See Hall & Krueger, *supra* note 113, at 17 (reporting that 60 percent of Uber drivers have either part-time or full-time employment apart from driving for Uber).

⁴⁴⁵ Uber Comment at 2 (Uber provides “[a]ccess to reliable transportation in an unprecedentedly short amount of time,” when traditional taxis “are typically unavailable,” and “from comfortable and safe locations”); Rogers, *supra* note 289, at 88 (“Uber has basically eradicated search costs.”); Cramer & Krueger, *supra* note 385 (finding that UberX drivers spend a higher percentage of time transporting riders than do taxi drivers).

⁴⁴⁶ Workshop Tr. at 52 (Joshua Gans).

One often-noted difference between taxis and the TNC model is that TNC drivers are usually individuals providing transportation part-time using their personal cars. They are “regular people who have driver’s licenses” rather than full-time, licensed professional taxi drivers.⁴⁴⁷ Despite this difference, others argue that because TNC drivers provide services similar to those afforded by individual cab drivers, who obtain a dedicated cab and license, they raise similar regulatory concerns. Such similarities were central to the California PUC’s decision to impose certain regulatory requirements, such as background checks and vehicle standards, on TNCs and their drivers to protect consumers and the public.⁴⁴⁸ The CPUC also rejected the claim that TNCs were “just an app” or a “means of communication used to arrange a service” and therefore outside its jurisdiction.⁴⁴⁹ Instead, it determined that TNCs provide a “transportation service” and adopted transportation network companies as a new category of regulated transportation provider.⁴⁵⁰

In contrast to the significant similarities between TNC drivers and taxi operators identified by Workshop participants, the discussion of the short-term lodging sector centered on asserted differences between hosts and hotels. While hosts and hotels both provide short-term accommodations, Workshop participants emphasized that they differ considerably in the types of facilities and nature of services they provide.⁴⁵¹ Hotels often offer scores or hundreds of separate rooms in one facility, with a full staff of professionals providing a range of services for guests; bed-and-breakfasts usually offer more personalized service with multiple rooms. In contrast, Airbnb hosts generally offer a single residential unit (apartment, house, or room).⁴⁵² They also often operate on a part-time basis, with limited professional training and experience.⁴⁵³ Airbnb’s representative described hosts as “regular people” trying to make “a little extra money,” and analogized their activity to taking in “roomers and boarders,” an “age-old activity.”⁴⁵⁴ As a result, the services they offer may be viewed as less professional than those afforded by commercial hotels.⁴⁵⁵

A major topic of one of the Workshop panels was whether Airbnb hosts only occasionally rent out space in their own residences, and thus plausibly engage in personal activity, or engage in extensive rental efforts that resemble commercial activity. Airbnb’s representative repeatedly emphasized that hosts predominantly are people who take lodgers “once in a while” in their own home.⁴⁵⁶ He argued that

⁴⁴⁷ *Id.* at 93 (Catherine J.K. Sandoval).

⁴⁴⁸ *Id.* at 94-95.

⁴⁴⁹ *Id.* at 94.

⁴⁵⁰ *Id.* at 91-94. In doing so, the CPUC recognized that they differed from taxis since they make pickups through pre-arranged communications, not hailing on the street. *Id.*

⁴⁵¹ *Id.* at 119 (David Hantman) (hotels and Airbnb hosts are “incredibly different things”).

⁴⁵² *Id.* at 118-19.

⁴⁵³ *Id.* at 114.

⁴⁵⁴ *Id.*

⁴⁵⁵ *Id.* at 119 (David Hantman). This difference in professionalism is not apparent in comparing taxi operators and platform-based drivers. One possible reason is that many consumers may view for-hire transport services as largely fungible if a ride is provided quickly and conveniently with a sufficient degree of assurance of safety. In contrast, consumers may view lodging services as significantly differentiated, with more potential for differences in levels of service.

⁴⁵⁶ *Id.* at 118 (“[M]ore than 90% of our people in New York, for instance, have only their own home that they list. It is people who do this for a once in a while, right?”). *See also id.* at 119, 134, 137, 144.

such transactions should not be subjected to the regulatory requirements placed on hotels, asking “does anybody really think that, if you’re hosting . . . your family, or your friends, or someone’s just borrowing your apartment . . ., that you should have to do all of the things that a hotel has to do?”⁴⁵⁷ However, he recognized that someone offering rentals “full-time as a business, in multiple locations” would be “very different.”⁴⁵⁸ Indeed, he stated that Airbnb has removed many of “the small number of people” with multiple listings and does not defend “rogue hotels.”⁴⁵⁹

A leading hotel industry association expressed some measure of agreement – recognizing that “those engaging in true ‘home sharing’ should be treated differently,” while repeatedly arguing that “those engaged in commercial activity, particularly those running businesses and renting out multiple properties, must pay their fair share of taxes and abide by commonsense safety, security, health, and fire standards.”⁴⁶⁰ Hotels and bed-and-breakfasts vigorously argued that large portions of rental activity on Airbnb are commercial in nature. One panelist argued that some hosts were running “rogue”⁴⁶¹ hotels, and “operating multiple properties as a business.”⁴⁶² A commenter similarly characterized Airbnb as “a vast illegal virtual hotel, without any of the safeguards provided by real hotels.”⁴⁶³ Others focused on the commercial, for-profit nature of the activity Airbnb enables.⁴⁶⁴

Hotel groups specifically contested Airbnb’s characterization of the rental activity on its platform as predominantly involving the occasional rental of the host’s residence.⁴⁶⁵ They relied extensively on a report prepared by the New York State Attorney General’s office using Airbnb data on hosting activity in New York City.⁴⁶⁶ That report found that the six percent of Airbnb hosts who rented out three or more units accounted for nearly 40 percent of the revenues earned by hosts on Airbnb, and that units serving as “Short-Term Rentals” (rather than primary residences) accounted for 38 percent of such revenues.⁴⁶⁷ Other commenters presented information suggesting that many Airbnb listings were for entire units that

⁴⁵⁷ *Id.* at 119 (adding “and that’s sort of what’s going on here”).

⁴⁵⁸ *Id.* at 114.

⁴⁵⁹ *Id.* at 118, 137.

⁴⁶⁰ Am. Hotel & Lodging Ass’n Comment at 1.

⁴⁶¹ Workshop Tr. at 137 (Vanessa Sindere).

⁴⁶² *Id.* at 116, 137.

⁴⁶³ Hotel Ass’n of N.Y.C. Second Comment at 4. *See also* Hotel Ass’n of N.Y.C. First Comment at 3-4.

⁴⁶⁴ *See, e.g.*, Steve Unger, Presentation at the Oregon Bed & Breakfast Guild Annual Conference: Will the Real Airbnb Please Stand Up? 3-5 (Mar. 2015), *attached to* Unger First Comment; Am. Hotel & Lodging Ass’n Comment at 1.

⁴⁶⁵ *See, e.g.*, Workshop Tr. at 143 (Vanessa Sindere); Hotel Ass’n of N.Y.C. First Comment at 2-3; Hotel Ass’n of N.Y.C. Second Comment at 3-4; Am. Hotel & Lodging Ass’n Comment at 1-2.

⁴⁶⁶ OFFICE OF THE ATTORNEY GENERAL OF THE STATE OF N.Y., AIRBNB IN THE CITY 10 (2014), <http://www.ag.ny.gov/pdfs/AIRBNB%20REPORT.pdf> [hereinafter NYAG REPORT].

⁴⁶⁷ *Id.* at 10, 13. The report included as “Short-Term Rentals” those units that were rented for a majority of the year through Airbnb on a short-term rental basis. *See also* JOHN W. O’NEILL & YUXIA OUYANG, PA. STATE UNIV., FROM AIR MATTRESSES TO UNREGULATED BUSINESS: AN ANALYSIS OF THE OTHER SIDE OF AIRBNB 3 (2016), http://www.ahla.com/uploadedFiles/Common/pdf/PennState_AirBnbReport_.pdf (a study funded by the Am. Hotel & Lodging Ass’n examining Airbnb hosting in 12 major cities, finding that hosts operating multiple units accounted for 40 percent of revenue earned on Airbnb in those cities, while full-time hosts (offering units 360 days per year) accounted for 26 percent of revenues).

might not be used as the hosts’ primary residences.⁴⁶⁸ Airbnb’s representative at the Workshop disputed the NYAG report’s findings.⁴⁶⁹ Some Airbnb hosts reported in comments that they hosted renters in their own homes.⁴⁷⁰ Moreover, data in the NYAG’s report suggest that a significant portion of rental activity on Airbnb may be performed by hosts occasionally taking lodgers into their homes.⁴⁷¹

IV. Specific Areas of Regulatory Concern

The previous section underscores the impact of new platform suppliers in the for-hire transport and short-term lodging sectors and the related regulatory challenges. Historically, each of these industries has long been subject to a number of sector-specific state and local regulations. This section addresses several specific areas of regulatory concern in one or both of these sectors that Workshop participants raised. While the debate in each of these regulatory areas has been extensive, this discussion focuses almost exclusively on the Workshop’s examination of these issues.

A. Consumer Protection and Public Safety

1. General

A wide variety of state and local statutes and regulations are directed to protecting consumers or ensuring public safety in the short-term lodging and for-hire transportation sectors. Some of these protections result from broadly applicable provisions such as tort and contract law. Transactions in these sectors, particularly for-hire transportation service, are largely governed by sector-specific laws and regulations that are generally enforced by governmental bodies⁴⁷² and often implemented through licensing requirements and inspections.⁴⁷³ In addition, federal statutes and regulatory bodies impose legal requirements that regulate aspects of sharing economy transactions. Notably, Section 5 of the FTC Act’s prohibition against unfair and deceptive acts and practices applies to platforms’ supply of services to customers and suppliers using the platform, as well as transactions between suppliers and customers over the platform.⁴⁷⁴ If a platform makes material misrepresentations to either customers or suppliers, the platform could be subject to a Commission action as well.

⁴⁶⁸ See, e.g., ROY SAMAAN, LAANE, AIRBNB, RISING RENT, AND THE HOUSING CRISIS IN LOS ANGELES 8 (2015), attached to Sybil Rosen Comment (reporting that “whole unit rentals” accounted for between 59 percent to 64 percent of Airbnb listings in New York City, Los Angeles, and San Francisco); Am. Hotel & Lodging Ass’n Comment at 2 (citing *San Francisco Chronicle* report that five percent of Airbnb hosts in San Francisco had three or more listings and accounted for nearly 20 percent of all listings).

⁴⁶⁹ Workshop Tr. at 144 (David Hantman) (stating that the NYAG Report’s findings were “all wrong,” but that Airbnb would need to share data to “prove” its claims). He added that Airbnb had removed “the vast majority” of hosts with multiple listings. *Id.* at 118 (David Hantman).

⁴⁷⁰ See Appendix B.

⁴⁷¹ NYAG REPORT, *supra* note 466, at 10, 13 (reporting that NYC units that were rented out less and 90 days per year accounted for 35 percent of total revenues earned by NYC hosts and that 64 percent of revenues were attributable to rentals by hosts offering only one or two units).

⁴⁷² See generally FTC TAXI REPORT, *supra* note 432.

⁴⁷³ See U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 18.

⁴⁷⁴ 15 U.S.C. § 45(a)(1).

Participants representing incumbents, platforms, and state and local government broadly embraced the importance of consumer protection and public safety in the provision of for-hire transport services and short-term lodging. A former taxi regulator pointed out that considerations of safety, consumer protection, and insurance were among “the basics that should never change.”⁴⁷⁵ The Uber representative appeared to agree, explaining that the regulatory measures Uber advocates to state and local governments address safety, consumer protection, and insurance considerations.⁴⁷⁶ The hotel industry panelist repeatedly stressed the importance of “ensuring the safety and security of our guests,”⁴⁷⁷ while Airbnb’s representative declared that “[w]e care an enormous amount about safety” and “can’t function” without it.⁴⁷⁸ California PUC Commissioner Sandoval emphasized “consumer protection and public safety” concerns, arguing that not only are passengers at risk, but also pedestrians and other drivers are as well.⁴⁷⁹ A panelist representing cities reported survey results showing that “public safety was the key concern” in cities’ assessments of the sharing economy.⁴⁸⁰

Representatives of traditional suppliers and others repeatedly expressed concern that platform suppliers would endanger consumers and public safety. One state senator declared that “illegal hotels . . . and the platforms which facilitate them, pose serious public safety hazards.”⁴⁸¹ Hotel industry representatives likewise asserted that Airbnb hosts are “compromising consumer safety.”⁴⁸² Commenters described a slew of requirements that hotels and bed-and-breakfasts must meet to ensure that they are safe and sanitary, but that Airbnb hosts may be ignoring.⁴⁸³ One expressed particular concern that platform suppliers “haven’t been properly educated and trained on safety and security matters” because they are not “formally in the lodging business.”⁴⁸⁴

⁴⁷⁵ Workshop Tr. at 121 (Matthew Daus). *See also* Taxicab, Limousine & Paratransit Ass’n First Comment at 2; N.Y.C. Taxi & Limousine Comm’n Comment at 3.

⁴⁷⁶ Workshop Tr. at 123-24 (Ashwini Chhabra); *see also* Lyft Comment at 1, 5.

⁴⁷⁷ Workshop Tr. at 115 (Vanessa Sindors); *see also* Am. Hotel & Lodging Ass’n Comment at 1.

⁴⁷⁸ Workshop Tr. at 117 (David Hantman).

⁴⁷⁹ *Id.* at 94 (Catherine J.K. Sandoval).

⁴⁸⁰ *Id.* at 111 (Brooks Rainwater). *See also* Brooks Rainwater, Nat’l League of Cities, Presentation Slides at FTC Workshop, The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators 9 (June 9, 2015), https://www.ftc.gov/system/files/documents/public_events/636241/rainwater.pdf.

⁴⁸¹ New York State Senator Krueger Comment at 3.

⁴⁸² Workshop Tr. at 115 (Vanessa Sindors).

⁴⁸³ *See* Am. Hotel & Lodging Ass’n Comment; Hotel Ass’n of N.Y.C. First Comment, at 2-4, (arguing that “hotels are required to be ‘safer’ than apartment buildings” to protect tourists unfamiliar with the building, citing fire and building codes, guest registries, posted rates, etc.); *id.* at 7-8 (hotels also employ security guards, have emergency procedures, safes for valuables, doormen, and 24-hour staffs, in part to meet safety concerns); Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 2 (“encourag[ing] local authorities to put fire, health and safety standards in place for short-term rentals” of “homes, apartments and rooms” to the public); Fla. Bed & Breakfast Inns Comment (citing fire codes, health requirements, insurance, etc.); Pa. Ass’n of Bed & Breakfast Inns Comment at 2 (emphasizing need to follow all requirements, including a variety of fire regulations imposed on hotels); Samaan, *supra* note 468, at 22 (“AirBnB allows hosts to utilize their spaces like hotels without being subject to any of the same regulatory checks to which actual hotels have adapted over the years.”). *But cf.* Koplow Comment (owner of bed and breakfast would “eschew any and all other regulation or licensure” other than measures to ensure tax collection).

⁴⁸⁴ Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 2.

Taxi industry participants expressed related concerns. One comment from a taxi regulator detailed a variety of public safety concerns regarding TNCs and their drivers, including lax standards, insufficient oversight of drivers, inadequate background checks, the difficulty of removing a “bad actor,” and ensuring adequate insurance.⁴⁸⁵ Others focused on harm that could result if the insurance TNC drivers carry or the background checks to which they are subject fail to meet standards set for taxi drivers.⁴⁸⁶ Another suggested that weakening regulations could increase incentives for competitors to engage in deceptive pricing and reduce efforts to ensure vehicle safety.⁴⁸⁷ Others argued that government regulation addressing these concerns could help promote consumer confidence in sharing economy transactions.⁴⁸⁸

Uber reported that various jurisdictions are responding to its entry with tailored regulation, particularly aimed at consumer and public safety, including requiring “rigorous criminal background checks and driving history reports,” as well as “adequate and appropriate insurance . . . to protect passengers and the public.”⁴⁸⁹ It maintained that these regulations, together with the various trust mechanisms Uber has adopted, provide appropriate consumer protection.⁴⁹⁰ Critics, however, argued that TNCs face lesser requirements than do taxi operators as to some matters, such as background checks and insurance.⁴⁹¹

Airbnb’s comment described its team of trust and safety staff available to hosts and renters, and outlined several safety programs, including verifying a participant’s offline identity (such as a passport), and providing information on best home-safety practices to educate hosts.⁴⁹² Its representative at the Workshop explained that it is working on safety initiatives and other matters,⁴⁹³ and argued that differing regulatory treatment is appropriate because hosts differ from hotels in that they only occasionally rent their own residences.⁴⁹⁴ He also explained that trust mechanisms greatly reduce safety

⁴⁸⁵ N.Y.C. Taxi & Limousine Comm’n Comment at 3-4.

⁴⁸⁶ See Workshop Tr. at 106-107 (Matthew Daus); Taxicab, Limousine & Paratransit Ass’n First Comment at 6-8; DAUS & RUSSO, *supra* note 431.

⁴⁸⁷ Taxicab, Limousine & Paratransit Ass’n First Comment at 2-3.

⁴⁸⁸ See, e.g., Workshop Tr. at 95 (Catherine J.K. Sandoval) (arguing that lack of insurance provisions are “will undermine confidence in the industry.”).

⁴⁸⁹ Workshop Tr. at 103-04 (Ashwini Chhabra). See also Lyft Comment Attachment at 6 (detailing aspects of Lyft’s background check).

⁴⁹⁰ See Airbnb Comment; Workshop Tr. at 103-05 (Ashwini Chhabra).

⁴⁹¹ *Id.* at 121-22 (Matthew Daus). See generally DAUS & RUSSO, *supra* note 431 (arguing that TNC background checks are inadequate to protect safety, citing lack of fingerprinting and other deficiencies). California enforcement officials have also brought actions alleging that Uber and Lyft have misrepresented the effectiveness of their safety requirements, such as their background checks, which have both been settled. Tracey Lien & Russ Mitchell, *Uber Sued Over Unlawful Business Practices; Lyft Settles*, L.A. TIMES (Dec. 9, 2014, 8:00 PM), <http://www.latimes.com/business/technology/la-fi-tn-uber-lyft-20141209-story.html> (describing civil lawsuits filed by district attorneys in Los Angeles and San Francisco and settlement with Lyft); Tracey Lien, *Uber Agrees to Settlement of up to \$25 Million in Misleading-Advertising Suit*, L.A. TIMES (Apr. 7, 2016, 4:08 PM), <http://www.latimes.com/business/technology/la-fi-tn-0408-uber-settlement-story.html> (reporting the settlement of the action against Uber).

⁴⁹² See Airbnb Comment at 4.

⁴⁹³ Workshop Tr. at 119 (David Hantman).

⁴⁹⁴ *Id.* at 119, 134, 137, 144.

concerns. “[F]air regulation [] is needed” in his view but “new information sharing between consumers, ratings and background checks, online reputation, really makes it a lot easier for consumers to get what they need.”⁴⁹⁵

2. Reputation Systems and Other Trust Mechanisms

In the for-hire transport and short-term lodging sectors, specific trust mechanisms have played key roles in addressing consumer protection and safety concerns. Platforms in both sectors use reputation mechanisms extensively to provide information to consumers and providers about the person with whom they are dealing. In addition, in both sectors, platforms have provided insurance, guarantees, and other interventions designed to promote confidence in transacting.

Airbnb’s representative argued that reputation systems had “lessened . . . the need for strong government intervention” by “reward[ing] good behavior and punish[ing] bad behavior.”⁴⁹⁶ Airbnb also described other ways it intervenes to reduce transaction concerns. For example, it takes the payment from the renter and does not remit payment to the host until 24 hours after check-in,⁴⁹⁷ and provides insurance coverage and guarantees to participants. One hotel association, however, stated that Airbnb’s ratings system and other trust mechanisms were “not safety or security measures at all,” because they do not protect against serious harm from fire or crime, but only against fraud.⁴⁹⁸

Ratings systems appear to have played an important role in addressing consumer protection and related concerns raised by drivers providing for-hire transport services through platforms. Uber’s reputation mechanism through which both riders and drivers rate each other, provides average scores after the driver accepts the ride but before the rider enters the car. In Uber’s view, the system “(1) incentivizes high quality service, (2) establishes accountability, and (3) promotes courteous conduct”⁴⁹⁹ Another TNC, Lyft, highlighted that it combines its reputation systems with “independently conducted background check[s] and vehicle inspection[s]” before permitting drivers to offer service through the platform, analogous to steps required by regulation.⁵⁰⁰ One comment submitted by academics and drivers, however, raised several issues concerning Uber and Lyft’s rating systems, including that the “ratings are failing to produce a reliable measurement of the actual quality of driving.”⁵⁰¹

As suggested in Chapters 2 and 3, trust mechanisms may play a significant role in reducing concerns resulting from information asymmetries, and therefore may reduce the need for some consumer protection and safety regulation designed to address such problems.⁵⁰² Platforms generally have strong incentives to use such mechanisms to protect their consumers. Platforms earn money by facilitating

⁴⁹⁵ *Id.* at 114.

⁴⁹⁶ *Id.* at 112.

⁴⁹⁷ Airbnb Comment at 4.

⁴⁹⁸ Hotel Ass’n of N.Y.C. Second Comment at 1-2.

⁴⁹⁹ Uber Comment at 5. *See also supra* note 165 and accompanying text.

⁵⁰⁰ Lyft Comment at 1.

⁵⁰¹ Raval Comment at 1-2.

⁵⁰² *See supra* Chapter 2, Sections III & IV; Chapter 3, pp. 59-61.

transactions between buyers and sellers, and thus have direct incentives to address consumer protection and safety concerns, because such concerns can impede transactions and therefore reduce the profitability of the platform. However, platforms may have weaker incentives to adopt these mechanisms to address externalities, *i.e.*, impacts on third parties or other public interests, since addressing such impacts may not directly promote transacting on the platform. Two commentators argued that those who are not customers of the platforms “cannot rely on contracts to shape platforms’ behavior” and “also cannot invoke market incentives.”⁵⁰³

Therefore, apart from a general concern for its reputation or the potential for regulation or enforcement action, a platform may have little monetary incentive to address issues that impose costs only on third parties. For example, pedestrians and other motorists are third parties who face risks from Uber drivers, and regulators may be less able to rely on platform actions to address those concerns.⁵⁰⁴ Platform participants (and platforms), however, still may have an interest in addressing such harms if they could be liable to third parties for such harms. For short-term lodging, the potential third-party impacts appear more diverse, involving disturbing the quiet enjoyment of others in their homes or making housing less affordable for residents.⁵⁰⁵ Absent enforcement of regulations, both platform-based drivers and hosts may lack incentives to act to meet other policy objectives such as paying taxes, providing service to disadvantaged or disabled persons, or promoting affordable housing.⁵⁰⁶

3. Insurance

An area in which platform interventions appear particularly important is the provision of adequate insurance covering platform-based suppliers for harm they may cause when providing for-hire transportation service. California PUC Commissioner Sandoval argued that, “insurance is absolutely critical for the growth of the [TNC] industry” since “lack of insurance will undermine confidence.”⁵⁰⁷ Industry representatives largely agreed with Commissioner Sandoval’s assessment that adequate insurance is crucial to the successful operation of ride-share platforms.⁵⁰⁸ Commissioner Sandoval similarly suggested that coverage for accidents during Airbnb stays will be important to hosts and renters considering whether to transact.⁵⁰⁹ She pointed out that the interests of third parties also may be affected – owners of buildings with Airbnb hosts may be liable for some injuries,⁵¹⁰ and pedestrians

⁵⁰³ Edelman & Geradin, *supra* note 111, at 309.

⁵⁰⁴ *Id.* at 309-10. However, measures to protect customers using the Uber platform (*e.g.*, driver background, car inspections, insurance requirements) may also reduce some of the risks drivers pose to those third parties. *See generally id.* at 310-13 (discussing potential externalities resulting from activities by platform suppliers of for-hire transport services).

⁵⁰⁵ *Id.* at 313. *See generally id.* at 313-15 (discussing potential externalities resulting from activities by platform suppliers of short-term lodging services and their guests); SUNDARARAJAN, *supra* note 12, at 140-41.

⁵⁰⁶ Edelman & Geradin, *supra* note 111, 318-24.

⁵⁰⁷ Workshop Tr. at 95 (Catherine J.K. Sandoval).

⁵⁰⁸ *See id.* at 123 (Matthew Daus) (“There has to be some form of acceptable insurance.”); *id.* at 130 (Ashwini Chhabra) (“You can’t talk too much about insurance” because “it seems to underpin” much of the debate).

⁵⁰⁹ *Id.* at 95 (Catherine J.K. Sandoval).

⁵¹⁰ Even those with less direct interests may need protection. Several credit unions also voiced concerns regarding whether insurance coverage for TNCs was adequate to protect lienholders. *See* Credit Union Nat’l Ass’n Comment; Ga. Credit Union Affiliates Comment.

injured by an Uber driver may need compensation.⁵¹¹

Personal car insurance and homeowners or renters insurance policies generally exclude most or all liability arising out of use of the insured property for commercial purposes, such as driving a personal car for hire or renting out a residence. Platforms in both of these sectors have taken steps to ensure that participants have adequate insurance coverage for transactions conducted over the platform, both by offering insurance directly and by facilitating the development of insurance products by insurance companies hesitant to insure risks without sufficient data.⁵¹²

TNC drivers use their personal cars to provide service, but personal auto insurance policies generally exclude “offering transportation for hire,”⁵¹³ and taxi regulations often set minimum levels of coverage that commercial operators must carry.⁵¹⁴ Both regulators and insurance companies initially found it difficult to tailor insurance requirements to TNC drivers.⁵¹⁵ Taxi operators typically carry commercial-level coverage at all times, but this could be prohibitively expensive and unnecessary for TNC drivers, who are often part-time workers. Ultimately, leading auto insurers and TNCs agreed on model legislation known as the “TNC Compromise Model,” under which higher insurance coverage is required for times when the vehicle is in commercial operation, as recorded through the app.⁵¹⁶ One panelist argued that such a hybrid insurance product “should be for everybody,” including part-time taxi drivers.⁵¹⁷ The Uber representative agreed, noting, however, that this would require that the taxi drivers adopt technology, similar to that used by TNC drivers, to record a driver’s activity.⁵¹⁸

Uber and Lyft provide insurance directly to their drivers for liability arising from supplying transportation services over the platform, pursuant to model legislation in a number of states that “puts

⁵¹¹ Workshop Tr. at 94-95 (Catherine J.K. Sandoval).

⁵¹² See *supra* Chapter 2, Section III.B, for a discussion of insurance offerings in these sectors, as well as other platform initiatives.

⁵¹³ Property Casualty Insurers Ass’n of Am. Comment at 1 (“Perhaps the best example of an exclusion or limitation for commercial activity on a personal lines policy is the ‘livery’ exclusion that excludes coverage for damage or injury arising out of an accident that occurs when the vehicle is used to offer transportation for hire.”).

⁵¹⁴ Workshop Tr. at 93-95 (Catherine J.K. Sandoval).

⁵¹⁵ *Id.* at 95-96; R.J. Lehmann, *Blurred Lines: Insurance Challenges in the Ride-Sharing Market* 6-9 (R Street Policy Study No. 28, 2014), attached to R Street Inst. Comment (describing the process through which California officials and TNCs addressed the question of insurance for TNC drivers). Relay Rides, which is a service for temporary car rentals, has also dealt with auto insurance policy issues. Its insurance provides the car owner with a \$1 million liability policy covering injuries and property damage, and also covers damage to his or her car. Those renting through Relay Rides can choose to purchase various levels of insurance. Relay Rides Comment at 2.

⁵¹⁶ Property Casualty Insurers Ass’n of Am. Comment at 1; Workshop Tr. at 95-96 (Catherine J.K. Sandoval); *id.* at 130-31 (Ashwini Chhabra). See also Press Release, Property Casualty Insurers Ass’n of Am., Insurance Rideshare Coverage Agreement Helps Protect the Public (Mar. 25, 2015), <https://www.pciaa.net/pciwebsite/cms/content/viewpage?sitePageId=40861>; Press Release, Uber, Insurance Aligned (Mar. 24, 2015), <https://newsroom.uber.com/introducing-the-tnc-insurance-compromise-model-bill/>. Coverage requirements and premiums can vary based on whether the driver is engaged in personal activity (with the app off), is available for hire (with the app on), or is transporting a passenger. Commissioner Sandoval explained that the “area of greatest contention” involved treatment of the period when the driver had the app on, available for a fare, but prior to being matched with a passenger. *Id.* at 95 (Catherine J.K. Sandoval).

⁵¹⁷ Workshop Tr. at 131-32 (Matthew Daus).

⁵¹⁸ *Id.* at 131-32 (Ashwini Chhabra).

the onus on Uber and any other TNC to carry coverage” if the driver lacks coverage.⁵¹⁹ In addition, Uber reported “working closely with the insurance industry as well to develop . . . new [insurance] products” that insurance companies can sell to TNC drivers directly.⁵²⁰ Insurance companies initially lacked the data to rate risks and offer policies to TNC drivers, but Uber provided the necessary data. As a result, some of the largest personal insurers have filed policies to cover TNC drivers in 11 states.⁵²¹ The Property Casualty Insurers Association of America reported that, at the time of the Workshop, 16 states had passed model legislation, and another 17 states were considering such legislation. It declared that in some states “clear insurance rules have spurred innovation among insurers who are starting to offer products tailored specifically to TNC drivers.”⁵²²

Insurance is also a significant issue for Airbnb hosts, as their personal homeowners insurance policies may provide little or no coverage for injuries to the guests that may occur during the course of a stay. The Property Casualty Insurers Association of America explained that “homeowners and renters policies frequently exclude or limit coverage for business or commercial activities” but that “[u]nfortunately, sharing economy participants often do not recognize their potential exposure for injury.”⁵²³ California PUC Commissioner Sandoval warned that those renting from hosts need to ask, if “you get a place through Airbnb and you have a slip and fall, are you covered?”⁵²⁴

In response to such concerns, Airbnb offers two insurance policies covering major risks faced by the parties transacting over the site. First, Airbnb offers a “host guarantee” protecting hosts from loss due to damage to their residence caused by renters.⁵²⁵ Second, as it learned about hosts’ concern for liability coverage, Airbnb offered insurance coverage for hosts’ liability for injuries to guests during a stay booked through Airbnb.⁵²⁶ While this insurance initially covered only losses not covered by other insurance (*e.g.*, by renter’s or homeowners policies), Airbnb subsequently expanded it to provide primary coverage for all losses.⁵²⁷ Although insurance companies were initially unwilling to provide coverage since there was not enough data for them to rate the risks, they ultimately offered coverage when Airbnb was able to provide sufficient data.⁵²⁸ In sum, one commenter reported that “the market has been quick to create solutions to liability concerns such as third-party insurance products uniquely geared toward protecting travelers, owners, hosts and operators.”⁵²⁹

⁵¹⁹ *Id.* at 130 (Ashwini Chhabra); Lyft Comment Attachment at 7-8.

⁵²⁰ Workshop Tr. at 124, 130-31 (Ashwini Chhabra).

⁵²¹ *Id.* at 130.

⁵²² Property Casualty Insurers Ass’n of Am. Comment at 2.

⁵²³ *Id.* at 1.

⁵²⁴ Workshop Tr. at 95 (Catherine J.K. Sandoval).

⁵²⁵ *Id.* at 133 (David Hantman); *The \$1,000,000 Host Guarantee*, AIRBNB, <https://www.airbnb.com/guarantee>.

⁵²⁶ Airbnb Comment at 4; *Host Protection Insurance*, AIRBNB, <https://www.airbnb.com/host-protection-insurance>.

⁵²⁷ Steven Musil, *Airbnb Beefs Up Liability Insurance Offering for Hosts*, CNET (Oct. 22, 2015, 12:00 AM), <http://www.cnet.com/news/airbnb-beefs-up-liability-insurance-offering-for-hosts/>.

⁵²⁸ Workshop Tr. at 133 (David Hantman).

⁵²⁹ The Travel Tech. Ass’n Comment at 4.

B. Taxation

A major concern of state and local governments is whether they are receiving payments of applicable taxes from sharing economy providers.⁵³⁰ The main motivation for becoming a platform supplier, or entering any business or occupation, is to earn an income, which is generally subject to state and federal income taxes. The Workshop did not address income taxes,⁵³¹ but instead addressed the collection of sector-specific taxes, particularly the “hotel occupancy” tax (or taxes⁵³²) applied to short-term rentals by hotels or bed-and-breakfasts.⁵³³ Workshop participants touched on topics such as whether these taxes are applicable to hosts, the extent to which hosts pay the taxes, and the extent to which platforms can and do play a role in collecting taxes on the transactions they process.

Traditional lodging providers reported that they are required to pay hotel taxes and contended that Airbnb hosts largely fail to pay them.⁵³⁴ They argued that platforms like Airbnb have an obligation to “ensure that taxes are paid,” particularly if the platform handles the rental payment.⁵³⁵ They pointed out that failure to pay applicable taxes harms cities by depriving them of revenue, and places traditional suppliers at an unfair competitive disadvantage.⁵³⁶

⁵³⁰ NAT’L LEAGUE OF CITIES, CENTER FOR CITY SOLUTIONS AND APPLIED RESEARCH, CITIES, THE SHARING ECONOMY AND WHAT’S NEXT 11 (2015), <http://www.nlc.org/Documents/Find%20City%20Solutions/City-Solutions-and-Applied-Research/Report%20-%20the%20Sharing%20Economy%20and%20Whats%20Next%20final.pdf> (“As the sharing economy continues to grow, cities have become concerned with the potential loss of revenue that would normally come from taxes on traditional services such as hotels and taxis.”).

⁵³¹ The IRS launched a web site designed to help taxpayers participating in the sharing economy in August 2016. *See* Press Release, Internal Revenue Serv., IRS Launches New Sharing Economy Resource Center on IRS.gov, Provides Tips for Emerging Business Area (Aug. 22, 2016), <https://www.irs.gov/uac/irs-launches-new-sharing-economy-resource-center-on-irsgov>. Some platforms report that they supply participants with Form 1099, for reporting miscellaneous income to the IRS. *See, e.g.*, Workshop Tr. at 135 (David Hantman). *But cf.* CAROLINE BRUCKNER, KOGOD TAX POL’Y CTR., AM. UNIV., SHORTCHANGED: THE TAX COMPLIANCE CHALLENGES OF SMALL BUSINESS OPERATORS DRIVING THE ON-DEMAND PLATFORM ECONOMY 17 (2016), <http://www.american.edu/kogod/news/upload/shortchanged-caroline-bruckner-kogod-au.pdf> (estimating that 2.5 million U.S. taxpayers participate in the sharing economy, and reporting that over 60% of survey respondents working for a sharing economy platform did not receive a Form 1099-K or Form 1099-MISC from their platform in 2015).

⁵³² Some jurisdictions may impose a variety of taxes – one panelist reported that New York City might have a number of separate taxes that could apply to hotels depending on the circumstances. Workshop Tr. at 135 (David Hantman) (“In New York, I think it’s between four and six taxes . . .”).

⁵³³ One panelist pointed out that taxi operators may also be required to pay sales tax or specific levies on taxi service, which TNC drivers may not be paying. Workshop Tr. at 139 (Matthew Daus).

⁵³⁴ *See, e.g.*, Hotel Ass’n of N.Y.C. First Comment at 1 (“If these virtual hotels pay any transient hotel related taxes at all, they do not pay the same taxes paid by hotels”); Hudson Area Lodging Comment at 1 (“Operating anonymously allow[s] AirBNB [sic] ‘Hosts’ to avoid all tax ramifications in most instances.”). *See also* U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 16 (describing the controversy over tax payments by hosts).

⁵³⁵ Workshop Tr. at 115 (Vanessa Sindors); *see also* Am. Hotel & Lodging Ass’n Comment at 1; Pa. Ass’n of Bed & Breakfast Inns Comment at 1 (“[A]ny websites that are accepting reservations and revenue from travelers for the short-term rentals should be collecting and turning in this [tax] revenue.”); Prof’l Ass’n of Innkeepers Int’l Comment Attachment at 1 (“if online intermediaries are collecting room revenue from travelers on behalf of the property owners or managers, they should collect and dispense the proper taxes”).

⁵³⁶ *See, e.g.*, Fla. Bed & Breakfast Inns Comment at 2 (“States and local municipalities are also losing out economically when Sales Tax is not collected . . .”).

Airbnb argued that it can be unclear whether hotel taxes would be owed by a host occasionally renting his property, but maintained that if cities think taxes are owed, “we want to help collect and remit” them.⁵³⁷ Airbnb states that it collects taxes where it “has made agreements with governments to collect and remit local taxes on behalf of hosts,”⁵³⁸ and has done so with various cities, such as Portland (Oregon), San Francisco, and San Jose.⁵³⁹ Airbnb’s representative claimed that the company has repeatedly sought legislation enabling it to collect and transmit hotel taxes on behalf of hosts in New York City, but that these efforts failed due to hotel industry opposition.⁵⁴⁰

Hotel industry participants agreed that hosts were paying taxes in some jurisdictions, but emphasized that taxes should be paid in all jurisdictions.⁵⁴¹ Several hotel industry commenters specifically contradicted Airbnb’s repeated claim that it has tried to obtain legislation to enable it to collect taxes only to be thwarted by hotel lobbyists, arguing that Airbnb offers to collect taxes only if the municipality agrees to change its regulations to ease restrictions on short-term rentals. One stated that Airbnb has “never made an unconditional offer to pay any lodging related taxes. Rather it seeks legislation that would alter New York’s zoning and real estate laws before making any such payments.”⁵⁴² Another commenter noted that agreements Airbnb has reached with Portland and San Francisco to collect hotel taxes from hosts included commitments by the cities to relax regulations that impinge on the ability of hosts to rent out their properties on a short-term basis.⁵⁴³

C. Zoning and Preservation of Residential Neighborhoods

Municipalities often adopt restrictions on the short-term leasing of units in residential neighborhoods as a means of promoting the quality of residential neighborhoods.⁵⁴⁴ One type of restriction sets a minimum term for leases of residential units, such as 30 days (with possible exceptions,

⁵³⁷ Workshop Tr. at 135 (David Hantman) (“We don’t always think that the tax is owed, because someone doing this a week a year is not a hotel.”).

⁵³⁸ *How Does Occupancy Tax Collection and Remittance by Airbnb Work?*, AIRBNB, <https://www.airbnb.com/help/article/1036/how-does-occupancy-tax-collection-and-remittance-by-airbnb-work>.

⁵³⁹ Workshop Tr. at 135 (David Hantman). Airbnb publishes online a list of jurisdictions in which it collects taxes. *See In What Areas is Occupancy Tax Collection and Remittance by Airbnb Available?*, AIRBNB, <https://www.airbnb.com/help/article/653/in-what-areas-is-occupancy-tax-collection-and-remittance-by-airbnb-available>.

⁵⁴⁰ Workshop Tr. (David Hantman) at 135-36. *See also id.* at 137 (“you are actually choosing not to let us collect and remit tax in New York”); *id.* at 119 (“Look, in New York, for three years, the hotel industry, the lobbyists said, it’s not fair because they’re not paying taxes So we said, fine, we’ll pay taxes. And they said, don’t let them pay taxes.”).

⁵⁴¹ *See, e.g.*, Workshop Tr. at 136 (Vanessa Sindors).

⁵⁴² Am. Hotel & Lodging Ass’n Comment at 1; *see also* Hotel Ass’n of N.Y.C. Second Comment at 3 (“Airbnb is not trying to pay taxes; rather, it is trying to get the legislature to legalize its extensive illegal operations in New York in exchange for its payment of some of the taxes that hotels are subject to.”) (citing news articles).

⁵⁴³ Samaan, *supra* note 468, at 30-33.

⁵⁴⁴ *See id.* at 21 (“Zoning codes fulfill this purpose by maintaining a separation between major land use categories (residential, agricultural, industrial, commercial) and by allowing only specified types of use in each major category.”). For example, the purpose of New York State’s restriction on short-term leasing has been described as “protect[ing] guests, ensur[ing] the proper fire and safety codes, protect[ing] permanent residents who ‘must endure the inconvenience of hotel occupancy in their buildings,’” and “preserv[ing] the supply of affordable permanent housing.” NYAG REPORT, *supra* note 466, at 18 (quoting New York State Assembly Memorandum in Support of Legislation, A10008, 233rd Leg. (N.Y. 2010)).

for example, if the lessor is the primary resident and is present during the stay).⁵⁴⁵ Where they exist, such provisions could substantially inhibit the leasing of residences on Airbnb, for example, by precluding hosts from engaging in short-term rentals of their primary residences (if they are not present) or from turning a residential unit into a full-time short-term rental unit.⁵⁴⁶ These restrictions generally do not apply to hotels, which are devoted solely to short-term rentals and typically built in non-residential areas.⁵⁴⁷

Airbnb expressed concern regarding the attempted enforcement of these zoning laws and other restrictions, which it described as having been in place for many years, “but only now are governments trying to figure out whether to apply them to roomers and boarders who are there for a week.”⁵⁴⁸ Airbnb’s representative argued that such regulations should not apply to hosts that provide lodging only “once in a while,”⁵⁴⁹ and found the dispute “frustrating” because he believed that there was basic agreement on this point.⁵⁵⁰ One commenter described Airbnb’s position as maintaining that these restrictions on residential leasing are “outdated” and “ill-suited to regulate the new, tech-driven ‘sharing economy.’”⁵⁵¹

In contrast, several Workshop participants argued that restrictions on short-term rentals were necessary to prevent harmful effects from short-term leasing in residential neighborhoods. Several commenters pointed to the adverse impact such rentals can have on the quality of life of neighbors, particularly in apartment buildings, due to increased noise, parties, and comings and goings by strangers.⁵⁵² Some have argued that such problems can be addressed by giving condominium boards or

⁵⁴⁵ For example, the New York State Multiple Dwelling Law prohibits “rent[ing] out an apartment in a ‘Class A’ multiple dwelling for less than 30 days, unless a ‘permanent resident’ is present during the rental period.” NYAG REPORT, *supra* note 466, at 18. *See also* Hotel Ass’n of N.Y.C. First Comment at 4-5. For an account of the debate over such restrictions in New York State, *see* SUNDARARAJAN, *supra* note 12, at 131-35. Santa Monica, on the other hand, passed legislation allowing rentals, but required the resident to obtain a license, pay a tax, and remain in the unit during the rental. Workshop Tr. at 137 (Vanessa Sindors).

⁵⁴⁶ *See* Deanna Ting, *Measuring the Impact of New York’s New Short-Term Rental Law on Airbnb*, SKIFT (Jul. 18, 2016, 6:45 AM), <https://skift.com/2016/07/18/measuring-the-impact-of-new-yorks-new-short-term-rental-law-on-airbnb/> (“New York’s short-term rental laws, which were last updated in 2010, basically prohibit most apartments (buildings with three or more units) in New York City from being rented out for less than 30 days.”); *see also* Hotel Ass’n of N.Y.C. First Comment at 5 (“These rentals of apartments by tourists for short-term stays are illegal, *regardless of where they occur in the City*, because . . . apartment buildings cannot be used for transient purposes.”). New York legislators enacted legislation to enhance enforcement of such restrictions by imposing heavy fines on hosts using Airbnb to rent a whole apartment for fewer than 30 days, and Airbnb responded with a lawsuit. Katie Benner, *Airbnb Sues Over New Law Regulating New York Rentals*, N.Y. TIMES (Oct. 21, 2016), http://www.nytimes.com/2016/10/22/technology/new-york-passes-law-airbnb.html?_r=0.

⁵⁴⁷ *See* Workshop Tr. at 136-37 (Vanessa Sindors).

⁵⁴⁸ *Id.* at 133-35 (David Hantman). One commenter argued that a Santa Monica ordinance restricting short-term rentals and home sharing violated the Takings Clause of the Constitution, the Sherman Act, and the Robinson-Patman Act, and suggested that Federal investigations and legislation may be necessary. *See* Sylvester Comment.

⁵⁴⁹ Workshop Tr. at 134 (David Hantman).

⁵⁵⁰ *Id.* at 137.

⁵⁵¹ Samaan, *supra* note 468, at 13.

⁵⁵² *See, e.g.*, New York State Senator Krueger Comment at 3 (“Neighborhoods also face serious quality of life and safety problems, ranging from overcrowded buildings and noise disturbances to the more serious burglaries and assaults by strangers who may never have gained access to the building were it not for the illegal hotel activity.”); Unger, *supra* note 464, at 8 (“Cities have traditionally protected neighbors and the traveling public by regulating short-term rentals” to protect

homeowners associations sufficient authority to address those issues.⁵⁵³ Different buildings could adopt “Airbnb-friendly” or “Airbnb-free” policies, enabling renters or buyers to choose residences based on their preferences.⁵⁵⁴

A second concern, expressed in a number of comments, was that Airbnb may be “incentivizing the large-scale conversion of residential units into tourist accommodations,” reducing the stock of affordable residential housing in cities.⁵⁵⁵ Other commenters described the resulting impact on affordable housing, with one explaining that Airbnb rentals reduce the stock of long-term rental housing.⁵⁵⁶ One state senator from New York City declared that “[t]he growth of illegal hotels is rapidly becoming one of the biggest obstacles in the struggle to protect and expand New York City’s stock of affordable housing,” and attached numerous public statements of other individuals and groups expressing similar concerns.⁵⁵⁷

Airbnb’s representative denied that Airbnb had any “significant impact” on the availability of affordable housing, explaining that “a lot of market forces are at work”⁵⁵⁸ and noting that Airbnb’s “commissioned studies” confirmed this view.⁵⁵⁹ He also argued that hosting may enable a resident to earn money to meet monthly rent or mortgage payments, and “by definition . . . that’s actually good for affordability.”⁵⁶⁰ While this applies to hosting in one’s primary residence, some hotel industry participants argued that many Airbnb hosts use their units as short-term rentals rather than residences, which could decrease the supply of residential housing.⁵⁶¹

residents’ quality of life, guests safety, local revenue sources, and housing supply.); *see generally* Oversight: Short Term Rentals: Stimulating the Economy or Destabilizing Neighborhoods?: Hearing Before the N.Y.C. Council Comm. on Hous. & Bldgs. (Jan. 20, 2015), *attached to* New York State Senator Krueger Comment (compilation of hearing testimony) (including numerous statements regarding the detrimental impact of Airbnb short-term rentals on New York City neighborhoods). *See also* Shelly Kreiczer-Levy, *Consumption Property in the Sharing Economy*, 43 PEPP. L. REV. 61, 103 (2015) (“Frequent short-term rentals may influence the noise, cleanliness, and density of population, and a constant flow of strangers that come and go may affect the atmosphere of the neighborhood . . .”).

⁵⁵³ *See* Cohen & Sundararajan, *supra* note 327, at 130; *see generally* Barry A. Ross, *Short-Term Rentals and Community Associations*, ORANGE COUNTY LAW. (Jan. 2016), <http://www.rossrealestatelaw.com/images/Short-Term-Rentals.pdf>; *but cf.* Hotel Ass’n of N.Y.C. First Comment at 6 (alleging that Airbnb solicits listing and promotes rentals with the knowledge that the resulting rental breaches “no sublet” clauses common in New York City).

⁵⁵⁴ Cohen & Sundararajan, *supra* note 327, at 131; *see also* John J. Horton, *The Tragedy of Your Upstairs Neighbors: Is the Airbnb Negative Externality Internalized?* (Dec. 16, 2015) (unpublished manuscript), <http://john-joseph-horton.com/papers/airbnb.pdf>.

⁵⁵⁵ Samaan, *supra* note 468, at 2.

⁵⁵⁶ Unger, *supra* note 464, at 8; Hudson Area Lodging Comment at 2 (“Hudson’s residents are facing a lack of affordable housing due to the new profit potential of real estate [that] websites like Airbnb ha[ve] created.”).

⁵⁵⁷ New York State Senator Krueger Comment at 1-2; *see also* Oversight: Short Term Rentals: Stimulating the Economy or Destabilizing Neighborhoods?, *supra* note 552.

⁵⁵⁸ Workshop Tr. at 138 (David Hantman).

⁵⁵⁹ *Id.* Mr. Hantman added that Airbnb’s founders are very concerned about affordability because they started their business by renting room in their apartment in order to pay their rent. *Id.*

⁵⁶⁰ *Id.* at 138-39.

⁵⁶¹ *See supra* notes 462-465.

As noted above, Airbnb has negotiated arrangements with some cities that include some easing of restrictions affecting short-term rental of residential units, together with some other provisions such as registration of hosts and collection of taxes.⁵⁶² However, one commenter stated that in some cities, there is little evidence that hosts have complied with registration or licensing requirements, and that such failures could complicate efforts to enforce other regulatory provisions.⁵⁶³ One such city, San Francisco, has recently sought to strengthen its registration requirement by fining the company \$1,000 a day for every unregistered host on its service, with officials explaining that only 20% of hosts had registered and Airbnb had refused to take action against the others.⁵⁶⁴

D. Service to the Disabled or Disadvantaged

Federal law and local regulations set standards for providing taxi service to people with disabilities, such as those passengers needing wheelchairs.⁵⁶⁵ Some commenters stated that Uber does not meet these standards, and claims it is not subject to them.⁵⁶⁶ However, one former taxi regulator explained that access for people with disabilities was “not just an Uber issue,” but one for taxis as well.⁵⁶⁷ Uber’s representative agreed, and reported that Uber has pilot programs in several cities to provide wheelchair accessible services.⁵⁶⁸ PUC Commissioner Sandoval explained that the California PUC addressed the problem by requiring that TNCs meet disability access standards and non-discrimination provisions.⁵⁶⁹

Taxis also are generally obligated to serve all areas of a city in which they operate,⁵⁷⁰ and commenters argued that such service obligations should be imposed equally on TNCs.⁵⁷¹ In response, Uber’s representative pointed to newly adopted state and local legislation that, among other things,

⁵⁶² Samaan, *supra* note 468, at 30. *See also In What Areas is Occupancy Tax Collection and Remittance by Airbnb Available?*, *supra* note 539. Other commenters claimed that Airbnb could promote enforcement of permitting or licensing requirements by having hosts indicate compliance by entering in permit or license numbers. *See Fla. Bed & Breakfast Inns Comment at 3; Unger, supra note 464, at 9.*

⁵⁶³ Samaan, *supra* note 468, at 30-35.

⁵⁶⁴ *See Katie Benner, Airbnb in Disputes with New York and San Francisco*, N.Y. TIMES (June 28, 2016), <http://www.nytimes.com/2016/06/29/technology/airbnb-sues-san-francisco-over-a-law-it-had-helped-pass.html>.

⁵⁶⁵ MATTHEW DAUS & JASMINE K. LE VEAUX, WINDELS MARX LANE & MITTENDORF, LLP, THE DISRUPTIVE TRANSPORTATION TECHNOLOGY MOVEMENT: A LITIGATION PRIMER & ROADMAP 37 (2014), *attached to* Windels Marx Lane & Mittendorf Comment. *See also* U.S. Dept. of Commerce Issue Brief, *supra* note 13, at 17-18.

⁵⁶⁶ *See, e.g., Nat’l Employment Law Project Comment at 1-2; Partnership for Working Families Comment at 1.*

⁵⁶⁷ Workshop Tr. at 139-40 (Matthew Daus).

⁵⁶⁸ *See id.* at 141 (Ashwini Chhabra). Mr. Chhabra also pointed out that the technology employed by Uber enables other groups of disabled people – the deaf and visually impaired – to obtain service more easily, by entering and receiving text or voice communications. *Id.*

⁵⁶⁹ *Id.* at 96-97 (Catherine J.K. Sandoval). However, one commenter noted that Uber had been fined for failing to provide data on accessibility of its vehicles as required by California authorities. Nat’l Employment Law Project Comment at 1-2.

⁵⁷⁰ Taxicab, Limousine & Paratransit Ass’n First Comment at 5 (“Most communities, for public safety and other reasons, want the public transportation service providers (taxicab/TNC/app) to ensure service is available 24-hours per day in all areas of the community.”); N.Y.C. Taxi & Limousine Comm’n Comment at 4 (“As a key component of New York City’s transportation infrastructure, it is vital that for-hire service be available for all passengers” and “in all parts of the city.”).

⁵⁷¹ *See, e.g., Taxicab, Limousine & Paratransit Ass’n First Comment at 5.*

prohibit TNCs from discriminating in the provision of service.⁵⁷² Moreover, he argued that TNC drivers do a better job than taxis in “serving underserved areas,” since the driver receives a request and accepts a fare without knowing the destination (although the driver necessarily knows the point of pickup).⁵⁷³

Hotel commenters stated that, unlike hotels, Airbnb and its hosts “operate outside” laws ensuring access for the disabled,⁵⁷⁴ and “create a massive market of transient trade that does not have to, and does not, obey the policy of th[ose] law[s].”⁵⁷⁵ Panelists at the Workshop, however, did not focus on this issue in their discussions.

V. Conclusion

This Chapter addresses the issues the sharing economy poses for regulators in the for-hire transportation and short-term lodging sectors and confirms the central importance of consumer protection and safety in these sectors. It demonstrates the difficulties these issues pose and the need for reliable data to address them. In addition, several participants suggested that platforms and suppliers may lack incentives to provide mechanisms or intervene to minimize potential negative externalities resulting from sharing economy operations. Traditional taxi interests argue that the same regulations and restrictions applied to taxi companies and drivers should apply to TNCs and TNC drivers.

TNCs have indicated a willingness to accept regulations covering some of the same basic concerns that underlie regulation of traditional taxis and relate to common functions they serve. However, they point to the need to tailor regulations taking into account the additional features platforms offer and the particular conditions surrounding their provision of services.

Airbnb argued that hosts are generally individual residents who allow a guest to stay in their homes once in a while and should not be subject to the same regulations imposed on professional hotels and bed-and-breakfasts. Hotel industry representatives claimed that many hosts are providing short-term lodging on a professional basis, raising safety concerns, interfering with residents in the quiet enjoyment of their homes, and undermining affordable housing policies. Regarding tax collection, participants agreed that when cities and states clearly intend taxes to apply to sharing economy transactions, hosts should pay them, but disputes remain regarding the adequacy of Airbnb’s efforts to facilitate payments.

⁵⁷² See Workshop Tr. at 103-04 (Ashwini Chhabra).

⁵⁷³ *Id.* at 147; Uber Comment at 3 (noting that Uber provides service “with no discrimination based on location”).

⁵⁷⁴ Hotel Ass’n of N.Y.C. First Comment at 1, 6-7 (They “operate outside the purview of the federal or state laws banning unlawful . . . discrimination against the disabled and their rights to transient lodging.”). See also Nat’l Employment Law Project Comment at 2 (Uber has claimed in court filings that it is not subject to the Americans with Disabilities Act.).

⁵⁷⁵ Hotel Ass’n of N.Y.C. First Comment at 7.

Appendix A: Public Comments Cited in the Report

The Federal Trade Commission issued a request for comments,¹ and received over 2,000 public comments (available on the website).² To assist readers of this report, below is an alphabetical list of the 45 comments that are cited in the report, with links to each of the comments and related attachments, if any.

Comment Name	Link to Comment
Airbnb Comment	Comment
Am. Hotel & Lodging Ass’n Comment	Comment
Application Developers All. Comment	Comment
CALinnovates Comment	Comment
Catalan Competition Auth. Comment	Comment Attachment
Comput. & Commc’ns Indus. Ass’n Comment	Comment
Consumer Elec. Ass’n Comment	Comment
Credit Union Nat’l Ass’n Comment	Comment
Fla. Bed & Breakfast Inns Comment	Comment
Free State Found. Comment	Comment
Future of Privacy Forum Comment	Comment
Ga. Credit Union Affiliates Comment	Comment
Hotel Ass’n of N.Y.C. First Comment	Comment
Hotel Ass’n of N.Y.C. Second Comment	Comment
Hudson Area Lodging Comment	Comment
Info. Tech. & Innovation Found. Comment	Comment
Internet Ass’n Comment	Comment
Intuit Comment	Comment
Jobs with Justice Comment	Comment
Koplow Comment	Comment
New York State Senator Krueger Comment	Comment Attachment 1 Attachment 2

¹ The request was contained in the April 17 Workshop Announcement. *See* Fed. Trade Comm’n, Workshop Announcement, The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators (Apr. 17, 2015), <https://www.ftc.gov/system/files/attachments/press-releases/ftc-examine-competition-consumer-protection-economic-issues-raised-sharing-economy-june-workshop/150416economyworkshop.pdf>. The Commission set deadlines of May 26, 2015 (for comments to be given consideration in preparation for the Workshop) and August 4, 2015 (for all other comments). *Id.* at 7. All names and affiliations were self-reported by the commenters.

² List of Public Comments regarding Sharing Economy Workshop, FED. TRADE COMM’N, <https://www.ftc.gov/policy/public-comments/initiative-607>.

Lyft Comment	Comment Attachment
Matchen Comment	Comment
Mercatus Ctr. Comment	Comment
Mothers Against Drunk Driving Comment	Comment
Nat'l Employment Law Project Comment	Comment
Nat'l Limousine Ass'n Comment	Comment
N.Y.C. Taxi & Limousine Comm'n Comment	Comment
Partnership for Working Families Comment	Comment
Pa. Ass'n of Bed & Breakfast Inns Comment	Comment
Prof'l Ass'n of Innkeepers Int'l Comment	Comment Attachment
Property Casualty Insurers Ass'n of Am. Comment	Comment
R Street Inst. Comment	Comment Attachment 1 Attachment 2
Raval Comment	Comment
Relay Rides Comment	Comment
Sybil Rosen Comment	Comment Attachment
Russo Comment	Comment Attachment
Sylvester Comment	Comment Attachment 1 Attachment 2
Taxicab, Limousine & Paratransit Ass'n First Comment	Comment
Taxicab, Limousine & Paratransit Ass'n Second Comment	Comment
TechFreedom & Int'l Ctr. for Law & Econ. Comment	Comment
TechNet Comment	Comment
Travel Tech. Ass'n Comment	Comment
Uber Comment	Comment
Unger First Comment	Comment Attachment
Van Alstyne Comment	Comment Attachment
Wallsten (Tech. Policy Inst.) Comment	Comment
Windels Marx Lane & Mittendorf Comment	Comment Attachment

Appendix B: Overview of the Public Comments

In announcing the Workshop, the Commission invited public comment on a variety of topics concerning the sharing economy.¹ In response, approximately 2,000 members of the public submitted comments to the Commission.² A large portion of these comments consisted of a few paragraphs written by individuals relating their experiences with sharing economy activity. Many were supplying services over platforms, predominantly as Airbnb hosts or TNC drivers. Others were customers receiving services over those platforms.

A substantial number of comments came from individuals who did not transact over sharing economy platforms, but engaged in livelihoods affected by economic activity over sharing economy platforms. Some of these were traditional suppliers who compete with sharing economy suppliers, such as taxi drivers and innkeepers. In addition, a substantial number of commenters were people affected by sharing economy activity, such as residents in neighborhoods impacted by short-term rentals by Airbnb hosts. Lastly, some comments came from those who did not have any clear connection with sharing economy activity.

The public comments expressed a wide variety of views, and no brief statistical summary can accurately reflect their breadth. Based on a review of all the comments, staff categorized the comments based on the type of commenter, views expressed regarding the sharing economy, and views expressed on regulation of the sharing economy.³ While this process could produce only approximate figures, following is a brief report of the results of that review.⁴

Overall, the comments were overwhelmingly positive regarding the sharing economy – about 90 percent of commenters made positive statements about the sharing economy. This included about 1,500 positive comments about Airbnb, about 250 positive comments about Uber, and over 150 positive comments about other sharing economy platforms (with some overlap due to mentions of multiple platforms).

¹ The Commission published the request for comments on April 17, 2015, with a due date of May 26, 2015 for comments to be considered for the June 2015 Workshop, and a final due date of August 4, 2015. Fed. Trade Comm’n, Workshop Announcement, The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators (Apr. 17, 2015), <https://www.ftc.gov/system/files/attachments/press-releases/ftc-examine-competition-consumer-protection-economic-issues-raised-sharing-economy-june-workshop/150416economyworkshop.pdf>.

² List of Public Comments regarding Sharing Economy Workshop, FED. TRADE COMM’N, <https://www.ftc.gov/policy/public-comments/initiative-607>.

³ These classifications were made based on limited information, and the results should therefore be viewed as approximate. In addition, staff made certain adjustments in the process, for example, combining multiple submissions from the same commenter.

⁴ The individuals whose comments were reviewed represent a small fraction of those participating in the sharing economy, including the approximately two million hosts registered on Airbnb, the approximately 162,000 drivers registered on Uber, and the many people who use these platforms to obtain accommodations and transportation services, as well as others affected by the sharing economy. See *supra* Introduction at text accompanying notes 32-34.

Many of the commenters briefly discussed their experiences participating in the sharing economy. Suppliers often emphasized the importance of the income they earned to their ability to meet basic financial obligations or pursue opportunities. In particular, a number of comments came from Airbnb hosts who described renting their residences, often staying with their guests, and the importance of the additional income this activity provided. Some suppliers expressed satisfaction in their ability to provide desired services, and appreciation of the flexible working arrangements that the sharing economy afforded. Consumers pointed to their ability to obtain services at reduced costs, particularly when renting short-term lodgings. Some also noted that the sharing economy offers greater convenience in obtaining service, for example, where taxicab service is poor.

Over 100 comments presented negative views of the sharing economy. Very few of these criticisms came from participants in sharing economy transactions. About 20 percent of these were submitted by platform suppliers who expressed dissatisfaction over issues such as the lack of defined worker rights or the operation of the rating system. Almost no customers expressed negative views regarding their sharing economy experiences.

The bulk of negative statements regarding the sharing economy were contained in comments submitted by those not directly involved in the sharing economy. Around ten percent of the commenters criticizing the sharing economy were competitors of sharing economy suppliers, such as bed-and-breakfasts competing with Airbnb hosts or taxis competing with TNC drivers. These competitors often voiced concerns regarding the failure of sharing economy suppliers to meet costly regulatory requirements. Approximately half of the negative statements about the sharing economy came from third parties who reported that sharing economy activity affected them adversely. One topic of concern mentioned by this group was the impact of Airbnb hosting on the availability of affordable housing and the preservation of safe, quiet residential neighborhoods. The remaining comments registering disapproval of sharing economy platforms were from members of the public who lacked a clear connection with the sharing economy activity.

Finally, around one-quarter of the approximately 2,000 commenters expressed some views on the general issue of regulation of the sharing economy. Of these, about two-thirds of these commenters argued against regulating the sharing economy, or favored the imposition of lighter regulations than those currently applicable. Around one-third of these comments argued in favor of greater regulation of the sharing economy, with some noting that this should include greater enforcement activity. Of those comments advocating more regulation, approximately one-third came from sharing economy suppliers, one-third came from third parties impacted by the sharing economy, and ten percent came from competitors. Very few came from consumers.

Appendix C: Workshop Agenda

The “Sharing” Economy: Issues Facing Platforms, Participants, and Regulators, June 9, 2015

8:30 AM – Welcome

- **William F. Adkinson, Jr.**, Attorney Advisor, Office of Policy Planning, Federal Trade Commission¹

8:45AM – Opening Presentation

- **Maureen Ohlhausen**, Commissioner, Federal Trade Commission
- Introduction by **Marina Lao**, Director, Office of Policy Planning, Federal Trade Commission

9:00 AM – Introduction to the Morning Panels: Framing Presentation

- **Liran Einav**, Professor, Department of Economics, Stanford University

9:15 AM – Panel 1: Sharing Economy Platforms: Market Design and Market Structure

Panel Participants:

- **Liran Einav**, Professor, Department of Economics, Stanford University
- **Chiara Farronato**, Assistant Professor of Business of Administration, Harvard Business School (Fall, 2015)
- **Joshua Gans**, Professor of Strategic Management, Rotman School of Management, University of Toronto
- **Glen Weyl**, Senior Researcher, Microsoft Research; on leave, Department of Economics, University of Chicago

Panel Moderator:

- **Nathan Wilson**, Economist, Bureau of Economics, Federal Trade Commission

11:00 AM – Panel 2: Mechanisms for Trust in the Sharing Economy

Panel Participants:

- **Chrysanthos Dellarocas**, Professor, Information Systems, School of Management, Boston University
- **Andrey Fradkin**, Postdoctoral Fellow, National Bureau of Economic Research
- **Ginger Jin**, Professor, Department of Economics, University of Maryland
- **Chris Nosko**, Assistant Professor of Marketing, Booth School of Business, University of Chicago
- **Steven Salter**, VP, Standards and Services, Council of Better Business Bureaus

Panel Moderators:

- **Andrew Stivers**, Deputy Director, Bureau of Economics, Federal Trade Commission
- **Cecelia Waldeck**, Attorney, Bureau of Competition, Federal Trade Commission

12:15 PM – Platform Power, Reputation, and Regulation: Policy Framing Presentation

¹ Positions and titles listed are those held by participants as of the date of the Workshop.

- **Arun Sundararajan**, Professor, Information, Operations and Management Sciences, Stern School of Business, New York University

12:30 PM – Lunch

1:35 PM – Keynote Presentation

- **Catherine J.K. Sandoval**, Commissioner, California Public Utilities Commission
- Introduction by **Marina Lao**, Director, Office of Policy Planning, Federal Trade Commission

2:00 PM – Panel 3: The Interplay between Competition, Consumer Protection, and Regulation: Business and Regulatory Views

Panel Participants:

- **Matthew Daus**, Partner, Windels, Marx, Lane & Mittendorf, LLP
- **David Hantman**, Head of Global Public Policy, Airbnb
- **Ashwini Chhabra**, Head of Policy Development, Uber Technologies
- **Brooks Rainwater**, Director, City Solutions and Applied Research Center, National League of Cities
- **Vanessa Sindors**, Senior Vice President and Head of Government Affairs, American Hotel and Lodging Association

Panel Moderators:

- **Julie Goshorn**, Attorney, Office of Policy and Coordination, Bureau of Competition, Federal Trade Commission
- **William F. Adkinson, Jr.**, Attorney Advisor, Office of Policy Planning, Federal Trade Commission

3:45 PM – Panel 4: The Interplay between Competition, Consumer Protection, and Regulation: Policy Perspectives

Panel Participants:

- **Lee Peeler**, President and CEO, Advertising Self-Regulatory Council, Executive Vice President, National Advertising Self-Regulation, Council of Better Business Bureaus
- **Sofia Ranchordás**, Resident Fellow, Information Society Project, Yale Law School; Assistant Professor, Administrative Law, Tilburg University
- **Maurice Stucke**, Associate Professor, University of Tennessee College of Law
- **Arun Sundararajan**, Professor, Information, Operations and Management Sciences, Stern School of Business, New York University
- **Adam Thierer**, Senior Research Fellow, Mercatus Center, George Mason University

Panel Moderators:

- **Marina Lao**, Director, Office of Policy Planning, Federal Trade Commission
- **Megan Cox**, Attorney, Division of Privacy and Identity Protection, Bureau of Consumer Protection, Federal Trade Commission

5:15 PM – Closing

- **Julie Goshorn**, Attorney, Office of Policy and Coordination, Bureau of Competition, Federal Trade Commission



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