

WHO SHARES THE SHARING ECONOMY?

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ABSTRACT

From its early days, the sharing economy was celebrated in utopian terms as a platform for creating and sharing wealth across social divides. Sharing, it is often argued, facilitates improved wealth redistribution and a decentralized, equitable, and sustainable economy by providing a community-based economy of sharers. These idealistic sentiments, prevalent in the public sphere, are what we call the sharing economy equalizing myth. But is this myth true, or is it just a smoke screen that enables aggressive participants in the sharing economy to harness its features for their own benefit?

This Article “meta-analyzes” an extensive volume of hundreds of empirical findings that studied the socio-economic implications of the sharing economy. We focus on three distinct fields that are central to peoples’ lives and wealth: labor, housing, and finance. We find that across a variety of markets, unequal outcomes are constantly prevalent. In fact, sharing economies impose great threats to both efficiency and fair distribution. We identify three implications of the sharing economy wherever it operates: (1) big or sophisticated stakeholders who take advantage of the regulatory system’s weaknesses; (2) uncontrolled discriminatory practices, and (3) negative externalities on the non-sharing, traditional, market.

We argue that these negative implications should be identified as a market failure in which the sharing economy operates. This market failure is a result of a structural regulatory arbitrage: the sharing economy incentivizes and rewards sophisticated repeat players to exploit the weaknesses of the regulatory system. To remedy this, market solutions are not enough, although we do offer several such solutions. In order to confront the market failure generated by the sharing economy, we argue that a conceptual regulatory shift must be adopted.

I. THE SHARING ECONOMY EQUALIZING MYTH

Since its gradual inception, the sharing economy has been celebrated in utopian terms as a form for creating and sharing wealth across many social

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Our deepest thanks to Barak Vardi, for his superb research assistance. Funding provided by G-City Real Estate Institute, Reichman University (IDC Herzliya).

segments. Sharing, it is argued, allows for better wealth redistribution¹ and a decentralized, equitable, and sustainable economy. It provides a community-based economy of sharers.² Supporters of the emerging sharing economy have argued that it would moderate economic inequality, increase the economic rights of the poor, promote sustainable use of resources, and help halt ecological destruction.³ In particular, the sharing economy was characterized as a way to assure below-median income citizens with a disproportionate fraction of eventual welfare gains through broader inclusion and better consumption options.⁴ To date, idealistic sentiments are prevalent in common public and media discourses.⁵ We call this the “sharing economy equalizing myth.”

Our purpose in this Article is to question whether, like many other myths, the sharing economy equalizing myth too has no real basis. Extensively reviewing the actual impacts of the sharing economy on three of its leading markets—the gig economy, short-term rentals, and fintech lending—we show that across a variety of markets, non-equalizing outcomes are constantly prevalent. In fact, sharing economies pose great threats to both efficiency and fair distribution. We identify a common reason for the multiple manifestations of the sharing economy’s disruptive outcomes: the structural manipulation of protective market regulations. When done by individual parties, the practice of taking advantage of a gap between the economics of a deal and its regulatory treatment is usually referred to as regulatory arbitrage.⁶ We argue that at the scale and types of strategic manipulations associated with the sharing economy, we should recognize the issue as a market failure of structural regulatory arbitrage.

Over the past few years, scholars have been sharing the fear that the sharing economy would in fact contribute to the growing trend of extreme inequality.⁷ In particular, several studies indicated the uneven distribution of the sharing economy’s wealth in specific markets. For instance, in the labor market, a study based on interviews with platform service providers showed that highly educated professionals use the platforms to increase their

¹ Juliet B. Schor & Steven P. Vallas, *The Sharing Economy: Rhetoric and Reality*, 47 ANN. REV. SOCIO. 369 (2021).

² Shu-Yi Oei, *The Trouble with Gig Talk: Choice of Narrative and the Worker Classification Fights Altruism, Community, and Markets*, 81 L. & CONTEMP. PROBS. 107, 112 (2018).

³ Alexandra J. Ravenelle, *Sharing Economy Workers: Selling, Not Sharing*, 10 CAMBRIDGE J. REGIONS ECON. & SOC’Y 281 (2017); Aurélien Acquier, Thibault Daudigeos & Jonatan Pinkse, *Promises and Paradoxes of the Sharing Economy: An Organizing Framework*, 125 TECH. FORECASTING AND SOC. CHANGE 1 (2017).

⁴ SHELLY KREICZER-LEVY, DESTABILIZED PROPERTY: PROPERTY LAW IN THE SHARING ECONOMY (2019) (discussing new consumption patterns and their effect on property law and theory); Samuel P. Fraiberger & Arun Sundararajan, *Peer-to-Peer Rental Markets in the Sharing Economy* (NYU Stern Sch. of Bus. Rsch. Paper, 2017).

⁵ Aurélien Acquier, Valentina Carbone & Laëtitia Vasseur, *The Sharing Economy as an Emerging and Contested Field—How Classic and Institutional Entrepreneurs Cope with Plural Theoretical Frames*, in THEORIZING THE SHARING ECONOMY: VARIETY AND TRAJECTORIES OF NEW FORMS OF ORGANIZING (Indre Maurer, ed., 2020); ARUN SUNDARARAJAN, THE SHARING ECONOMY: THE END OF EMPLOYMENT AND THE RISE OF CROWD-BASED CAPITALISM (2017).

⁶ Nizan Geslevich Packin, *Show Me the (Data About the) Money!*, 2020 UTAH L. REV. 1277, 1296 (2020) (discussing regulatory arbitrage in the FinTech context); Elizabeth Pollman, *Tech, Regulatory Arbitrage, and Limits*, 20 EUR. BUS. ORG. LAW REV. 567–590 (2019); Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227 (2010).

⁷ THOMAS PIKETTY, CAPITAL IN THE 21ST CENTURY (2014); see also Anat Alon-Beck, *Bargaining Inequality: Employee Golden Handcuffs and Asymmetric Information*, 81 MD. L. REV. 1165 (2021).

earnings, crowding out less advantaged, lower-educational-attainment workers who have traditionally done much of the manual work that more privileged sharing providers are now doing.⁸

In a more recent and broader study, researchers found it difficult to provide a determinative answer as to whether the platform economy in the labor market functions as a social equalizer, opening earning opportunities, or whether it widens existing disparities. Based on survey data, these researchers argued that platform economies are strongly segregated by occupation and should be examined as a set of distinct occupations rather than as a homogenous industry.⁹ Another study reached similar conclusions with respect to platforms that are based on a self-declared ethic of accessibility, openness, and equal opportunity for all, such as food exchange apps or time banks. It was revealed that as these sharing platforms grow, distinguishing practices also develop and, thus, inequality is created within the platforms.¹⁰ Overall, there is mounting evidence that race-based discrimination is prevalent in sharing platforms, and the claim that they provide opportunities to less advantaged people is hard to prove.¹¹

Critical viewers go even further, arguing that online platforms use immunity techniques, such as terms of service, misclassification, and asymmetry of information, alongside advanced techniques for workforce control like algorithmic management, close monitoring, and rating systems, to actually exploit and perpetuate racial, economic, and gender inequality in favor of their profits.¹² Thus, “[I]n the world of platform labor, inequality is a feature rather than a bug.”¹³ Conversely, sharing-economy companies employ labels such as “creative industry” for the purpose of intentional exploitation of the labor force.¹⁴ Other terminologies that are commonly used, such as gig economy, peer-to-peer, and so forth, are used to assimilate and promote narratives that are helpful to this industry in its dealing with regulators, despite the industry’s proven adverse effects.¹⁵

Therefore, the sharing economy at large faces two conflicting claims: On the one hand, it is perceived as an accessible form to provide better wealth distribution, support a more egalitarian society, reduce inequality, and a way

⁸ Juliet B. Schor, *Does the Sharing Economy Increase Inequality Within the Eighty Percent?: Findings from a Qualitative Study of Platform Providers*, 10 CAMBRIDGE J. REGIONS ECON. & SOC’Y 263 (2017).

⁹ Lyn Hoang, Grant Blank & Anabel Quan-Haase, *The Winners and the Losers of the Platform Economy: Who Participates?*, 23 INFO. COMM’N & SOC’Y 681 (2020).

¹⁰ Juliet B. Schor, Connor Fitzmaurice, Lindsey B. Carfagna, Will Attwood-Charles & Emilie Dubois Poteat, *Paradoxes of Openness and Distinction in the Sharing Economy*, 54 POETICS 66 (2016).

¹¹ Juliet B. Schor & William Attwood-Charles, *The “Sharing” Economy: Labor, Inequality, and Social Connection on For-Profit Platforms*, 11 SOCIO. COMPASS, 1 (2017).

¹² Nizan Geslevich Packin & Yafit Lev Aretz, *Algorithmic Analysis of Social Behavior for Profiling, Ranking, and Assessment*, in CAMBRIDGE HANDBOOK ON THE LAW OF ALGORITHMS 632 (Woodrow Barfield & Ugo Pagallo eds., 2020); Niels van Doorn, *Platform Labor: On the Gendered and Racialized Exploitation of Low-Income Service Work in the ‘On-Demand’ Economy*, 20 INFO. COMM’N & SOC’Y 898 (2017).

¹³ *Id.* at 907.

¹⁴ Mariusz Baranowski, *The Sharing Economy: Social Welfare in a Technologically Networked Economy*, 41 BULL. SCI., TECH. & SOC’Y 20, 27 (2021); see also Lauri Goldkind & John G. McNutt, *Vampires in the Technological Mist: The Sharing Economy, Employment and the Quest for Economic Justice and Fairness in a Digital Future*, 13 ETHICS & SOC. WELFARE 51 (2019).

¹⁵ Oei, *supra* note 2; see also, Russell Belk, *Sharing Without Caring*, 10 CAMBRIDGE J. REGIONS ECON. & SOC’Y 249 (2017).

to promote market efficiency. On the other hand, it arguably deepens existing gaps while gaining no improvement in terms of efficiency. So, is the sharing economy the solution or part of the problem? The purpose of this Article is to provide a deeper inquiry into this question by reviewing existing empirical knowledge of three distinct fields where the sharing economy is most prominently affecting people's life and wealth: labor, housing, and finance. Our primary question is this: Who gets a significant share of the sharing economy? Does reality reflect the sharing economy equalizing myth, or is it yet another form of aggressive capitalism that expands inequalities and preserves social disparities?

While there is a growing body of studies that questions the effects of sharing-economy activities in specific contexts,¹⁶ most of the existing research covers inequalities in one specific sector.¹⁷ Reviewing a variety of empirical literatures on three different markets—the labor market, the housing market, and the finance market—we can analyze and identify common impacts of the sharing economy. While the first two markets are the main objects of study in the context of the sharing economy,¹⁸ the finance market, which has been affected by peer-to-peer (“P2P”) lending platforms (such as LendingClub and Prosper), is less researched in general¹⁹ and even more so in the context of inequality issues. Taking this growing and important market into account furthers our ability to understand how the sharing economy operates in the nation's economy.

We identify three common implications of the sharing economy wherever it operates: (1) big or sophisticated stakeholders who take advantage of the regulatory system's weaknesses, (2) uncontrolled discriminatory practices, and (3) negative externalities on the non-sharing, traditional market. We argue that these widely documented negative implications should be identified as a market failure in which the sharing economy operates. This market failure is a result of structural regulatory arbitrage: the sharing economy incentivizes and rewards sophisticated repetitive actors for exploiting regulatory systems. To remedy this, specific market solutions are not enough, although we do offer several such ideas. We contend that a conceptual regulatory shift must be adopted in order to overcome the sharing economy market failure.

¹⁶ See Schor & Attwood-Charles, *supra* note 11; John O. McGinnis, *The Sharing Economy as an Equalizing Economy*, 94 NOTRE DAME L. REV. 329, 329 (2018); SUNDARARAJAN, *supra* note 5.

¹⁷ Steven Kane Curtis, Jagdeep Singh, Oksana Mont & Alexandra Kessler, *Systematic Framework to Assess Social Impacts of Sharing Platforms: Synthesizing Literature and Stakeholder Perspectives to Arrive at a Framework and Practice-oriented Tool*, 15 PLOS ONE 1, 2 (2020).

¹⁸ Will Sutherland & Mohammad Hossein Jarrahi, *The Sharing Economy and Digital Platforms: A Review and Research Agenda*, 43 INT'L J. INFO. MGMT. 328, 335 (2018).

¹⁹ It is worth mentioning that some scholars exclude P2P lending from the sharing economy typology. See Oksana Gerwe & Rosario Silva, *Clarifying the Sharing Economy: Conceptualization, Typology, Antecedents, and Effects*, 34 ACAD. MGMT. PERSPS. 65, 81 (2020) (claiming that that sharing cannot be from person to business). For a critique of this point, see Gideon D. Markman, Marvin Lieberman, Michael Leiblein, Li-Qun Qwi & Yonggui Wang, *The Distinctive Domain of the Sharing Economy: Definitions, Value Creation, and Implications for Research*, 58 J. MGMT. STUD. 927, 930 (2021). But in most part, scholars consider P2P lending as part of the sharing economy. See Daniel Schlagwein, Detlef Schoder & Kai Spindeldreher, *Consolidated, Systemic Conceptualization, and Definition of the “Sharing Economy”*, 71 J. ASS'N FOR INFO. SCI. & TECH. 817, 818 (2020); Rachel Botsman, *The Sharing Economy Lacks a Shared Definition*, FAST CO. (2013), <https://www.fastcompany.com/3022028/the-sharing-economy-lacks-a-shared-definition> [<https://perma.cc/6BJ8-HLRT>].

The rest of the Article is divided into two main parts: the first, Part II, offers a rich analysis of the existing empirical evidence of the economic and social implications of the sharing economy. Following a short introduction into the controversy over the sharing economy market, this Part is divided into three sub-sections, each of which explores the sharing economy's actual impacts on a distinct market: labor, housing, and finance. Each of these markets receives a detailed evidenced-based analysis, where side by side with the impacts we outlay, we propose the regulatory loopholes that are being adversely exploited. For instance, for the housing market we identify how short-term rentals thrive by cross-cutting the housing market's most rigid regulation of single-family zoning and single-residential uses restrictions, and how the sharing activity externalizes this on the housing market.

Next, Part III identifies the common features of the sharing economy impacts, wherever it operates. We develop our claim that these common features amount to a sharing economy market failure: the structural manipulation of protective regulation. We then discuss the conceptual shift needed to address this market failure and conclude by outlaying several specific solutions tailored for each of the markets we explored.

II. THE SHARING ECONOMY'S IMPACT ON MARKETS

A. THE SHARING ECONOMY CONTROVERSY

The idea of the sharing economy is based on the exchange and collaboration between individuals of goods, services, resources, knowledge, and time, usually with monetary exchanges through online platforms. In the literal sense of the concept, the sharing economy can be traced back to ancient times, as it was always done between family members and friends.²⁰ The modern-day "sharing economy" describes a new model of consumption related to the development of the Internet and new technologies for sharing information and initiating communication.

The sharing economy has revolutionized current business models globally and rapidly based on several expanding online sharing platforms such as Airbnb, Uber, TaskRabbit, Lyft, and many others.²¹ The sharing economy modern revolution began in the late 2000s, primarily by non-profit initiatives, such as couchsurfing and freecycle, but quickly grew into a profitable business model that has grown exponentially in the last decade.²² Among the reasons for the growth, we can count the technological developments (such as smartphones); cultural Internet practices of sharing goods and information (eBay, for example); favorable economic conditions for investing in Internet companies; and the Great Recession of 2008, which

²⁰ Russell Belk, *Sharing Versus Pseudo-Sharing in Web 2.0*, 18 ANTHROPOLOGIST 7, 10–11 (2014).

²¹ DIANA FARRELL, FIONA GREIG & AMAR HAMOUDI, THE ONLINE PLATFORM ECONOMY IN 2018: DRIVERS, WORKERS, SELLERS, AND LESSORS (2018); Shelly Kreiczler-Levy, *The Duties of Online Marketplaces* 58 SAN DIEGO L. REV. 269, 272 (2021) (discussing the challenges of these emerging markets and platforms' duties towards market participants).

²² Mingming Cheng, *Sharing Economy: A Review and Agenda for Future Research*, 57 INT'L J. HOSP. MGMT. 60 (2016).

was accompanied by high unemployment rates among young people and high student debt.²³

It is hard to assess the size of the sharing sector, but in the last extensive survey done, in 2016, it was found that the overall size of the sharing economy in the European Union is estimated to be €26.5 billion.²⁴ A 2013 PwC study reported sales revenue from the sharing economy to be around \$15 billion.²⁵ This included apps focused on lending, home-sharing, ride sharing, music and video streaming, and online or remote work. The study predicted sales revenue would climb to \$335 billion by 2025.²⁶ In addition, findings show that 16% of Americans have ever earned money through an online gig platform.²⁷

One of the reasons why it is a difficult task to measure the sharing economy is the lack of consensus regarding the definition, terminology, and the concept itself and what it includes.²⁸ Recent research summed up most of the definitions in the literature and, based on them, defined the sharing economy as an “IT-facilitated peer-to-peer model for commercial or non-commercial sharing of underutilized goods and service capacity through an intermediary without a transfer of ownership.”²⁹ This terminology still remains unclear. Other synonymous concepts or terms for the sharing economy are platform capitalism, on-demand economy, gig economy, collaborative consumption, crowd-based capitalism, peer-to-peer economy, access economy, and many others.³⁰

The sharing economy is an umbrella construct that includes all the other concepts that describe more narrow aspects of the phenomenon.³¹ Even though the sharing economy is mainly associated with the sectors of transportation (Uber, for example) and accommodation (Airbnb, for example), there is a wide range of industries in which the sharing economy is currently perceived to be gaining traction such as finance, on-demand services, fashion and clothing, food, and logistics.³² Types of sharing-

²³ Steven Vallas & Juliet B. Schor, *What Do Platforms Do? Understanding the Gig Economy*, 46 ANN. REV. SOCIO. 273, 274 (2020); see also R. Basseilier, G. Langenus & L. Walravens, *The Rise of the Sharing Economy*, 3 ECON. REV. 57, 60–61 (2018).

²⁴ DIRECTORATE-GENERAL FOR INTERNAL MARKET, INDUSTRY, ENTREPRENEURSHIP AND SMES, STUDY TO MONITOR THE ECONOMIC DEVELOPMENT OF THE COLLABORATIVE ECONOMY AT SECTOR LEVEL IN THE 28 EU MEMBER STATES: FINAL REPORT 159 (2018), <https://data.europa.eu/doi/10.2873/83555> [<https://perma.cc/A75P-UAZS>].

²⁵ PwC, SHARING OR PAIRING? GROWTH OF THE SHARING ECONOMY 5, <https://www.pwc.com/hu/en/kiadvanyok/assets/pdf/sharing-economy-en.pdf> [<https://perma.cc/6KZN-V7TC>].

²⁶ *Id.*

²⁷ MONICA ANDERSON, COLLEEN MCCLAIN & MICHE FAVERIO, PEW RSCH. CTR., THE STATE OF GIG WORK IN 2021 (2021).

²⁸ Gideon D. Markman, Marvin Lieberman, Michael Leiblein, Li-Qun Wei & Yonggui Wang, *The Distinctive Domain of the Sharing Economy: Definitions, Value Creation, and Implications for Research*, 58 J. MGMT. STUD. 927, 928 (2021).

²⁹ Schlagwein et al., *supra* note 19.

³⁰ Oksana Gerwe & Rosario Silva, *Clarifying the Sharing Economy: Conceptualization, Typology, Antecedents, and Effects*, 34 AMP 65, 71 (2020).

³¹ Aurélien Acquier, Thibault Daudigeos & Jonatan Pinkse, *Promises and Paradoxes of the Sharing Economy: An Organizing Framework*, 125 TECH. FORECASTING & SOC. CHANGE 1, 2 (2017).

³² Andrea Geissinger, Christofer Laurell & Christian Sandström, *Digital Disruption Beyond Uber and Airbnb—Tracking the Long Tail of the Sharing Economy*, 155 TECH. FORECASTING & SOC. CHANGE 1, 4 (2020).

economy companies can be classified into two categories: transactions (money-based or not) and assets (capital or labor).³³

While public interest in the sharing economy is on the rise, a polarization of views on its potential benefits and drawbacks is fast becoming apparent. The original belief was that interpersonal sharing would increase efficient use of limited resources and therefore would contribute to reaching distributive justice. Recently, a new perspective is gaining prevalence, one that contemplates the sharing economy could enable businesses to evade regulations and even break the law and, as a result, contribute to increasing social gaps.

This controversy reflects the diverse interests of the many individuals, organizations, and businesses engaged in what is essentially an emerging movement for sharing that has yet to clarify its scope, purpose, and effect.

In the following sections, we examine the variety of evidence and claims supporting the conflicting views by focusing on three main sectors influenced by the development of the sharing economy: labor, housing, and finance. By fostering an in-depth and comprehensive analysis of those sectors, we add a further layer for understanding the global social effects of this collaborative economy. While analyzing the evidence on the sharing economy's impacts, we are able to identify the regulatory loopholes that enable them to thrive.

B. THE LABOR MARKET

One of the sharing economy's most discussed effects is on labor markets and employment ecosystems. The latest studies show that 16% of Americans have earned money through an online gig platform at least once.³⁴ In Europe, it is estimated that employment in gig platforms accounts for around 1-3% of total employment in the EU,³⁵ and that 11% of adults have earned income from platform work at some point in their lives.³⁶ The numbers from Europe reflect estimations before the COVID-19 pandemic. More recent numbers probably tell a different story, as the pandemic reduced some types of platform work (such as in ride-sharing) while accelerating growth of other types (such as food delivery).³⁷

The uniqueness of employment in the sharing economy is that, unlike other more traditional employment types, sharing-economy employment is based on a temporary contract that connects self-employed workers directly with clients via a digital platform.³⁸ This phenomenon is distinct from the general sharing economy and is commonly referred to as the "gig economy,"

³³ Gerwe & Silva, *supra* note 30.

³⁴ ANDERSON ET AL., *supra* note 27.

³⁵ ZACHARY KILHOFFER, WILLEM PIETER DE GROEN, KAROLIEN LENAERTS, INE SMITHS, HARALD HAUBEN, WILLEM WAEYAERT, ELISA GIANCUMACATOS, JEAN-PHILIPPE LHERNOULD & SOPHIE ROBIN-OLIVIER, STUDY TO GATHER EVIDENCE ON THE WORKING CONDITIONS OF PLATFORM WORKERS (2020).

³⁶ Maria Cesira Urzi Brancati, Annarosa Pesole & Enrique Fernandez Macias, *Digital Labour Platforms in Europe: Numbers, Profiles, and Employment Status of Platform Workers*, (2019), <https://econpapers.repec.org/paper/iptiptwpa/jrc117330.htm> [<https://perma.cc/M8QK-NKZH>].

³⁷ Daniel Spurk & Caroline Straub, *Flexible Employment Relationships and Careers in Times of the COVID-19 Pandemic*, 119 J. VOCATIONAL BEHAV. 1, 2 (2020).

³⁸ Gretchen M. Spreitzer, Lindsey Cameron & Lyndon Garrett, *Alternative Work Arrangements: Two Images of the New World of Work*, 4 ANN. REV. ORG. PSYCH. ORG. BEHAV. 473, 479 (2017).

which is an “ensemble of ex ante specified, paid tasks carried out by independent contractors mediated by online platforms.”³⁹

One of the most prominent and influential platforms in the gig economy is Uber, a ride-sharing company launched in 2010. By the end of 2015, more than 460,000 driver-partners in the United States actively drove with Uber.⁴⁰ Transportation gigs are the primary engine of growth of the gig economy and Uber has a significant part in it.⁴¹ Transportation gigs include ridesharing, delivery, and moving services. Besides Uber, it is worth mentioning Lyft (a similar platform to Uber), DoorDash (a food-delivery platform), and Postmates (a delivery service for various items). Another prominent gig sector is the service gigs, which focus on multiple services, from cleaning to dog walking. The most well-known service gigs platforms are Handy (a gig app for home cleaners and handymen) and TaskRabbit (a platform for various everyday tasks).⁴²

The gig platforms, from all sectors, dramatically changed the labor landscape. The positive story about the gig economy is as follows. First, the platforms provide a high level of flexibility for workers in terms of work time and place and give them the sense of “being your own boss.” Studies show that workers consider this factor the main reason to take part in the gig economy.⁴³ Second, some studies show that companies like Uber can potentially increase labor-force participation, reduce the unemployment rate of residents living below the poverty level, and improve the employment and economic situation of low-income workers, including the increase in wages of low-skilled jobs.⁴⁴ Third, by increasing competition, the platforms sometimes have positive effect on other jobs or employers in the same sector.⁴⁵ Finally, it is also worth mentioning the critical role of the platforms in providing economic resilience during COVID-19 shutdowns for both workers and small businesses, such as restaurants.⁴⁶

Outside the labor field, gig platforms have an important role in creating an alternative to the traditional companies and, therefore, increasing market competition. The competitive power imposed by the platforms encourages companies to improve services and reduce prices for the consumers.⁴⁷ In

³⁹ Nikos Koutsimpogiorgos, Jaap van Slageren, Andrew M. Herrmann & Koen Frenken, *Conceptualizing the Gig Economy and its Regulatory Problems*, 12 POL’Y & INTERNET 525, 527 (2020).

⁴⁰ Jonathan V. Hall & Alan B. Krueger, *An Analysis of the Labor Market for Uber’s Driver-Partners in the United States*, 71 ILR REV. 705, 706 (2018).

⁴¹ FARRELL ET AL., *supra* note 21.

⁴² John T. Fleming, *Welcome to the Gig Economy*, in *ULTIMATE GIG: FLEXIBILITY, FREEDOM, REWARDS 1* (Lauren Lawley Head ed., 2021).

⁴³ Hall & Krueger, *supra* note 40; Laura Katsnelson & Felix Oberholzer-Gee, *Being the Boss: Gig Workers’ Value of Flexible Work* (Harv. Bus. Sch., Working Paper, No. 21-124, 2021).

⁴⁴ Ziru Li, Yili Hong & Zhongju Zhang, *The Empowering and Competition Effects of the Platform-Based Sharing Economy on the Supply and Demand Sides of the Labor Market*, 38 J. MGMT. INFO. SYS. 140, 142 (2021).

⁴⁵ Tarik Dogru, Makarand Mody, Courtney Suess, Sean McGinley & Nathaniel D. Line, *The Airbnb Paradox: Positive Employment Effects in the Hospitality Industry*, 77 TOURISM MGMT. 1, 3 (2020).

⁴⁶ Manav Raj, Arun Sundararajan & Calum You, *COVID-19 and Digital Resilience: Evidence from Uber Eats*, (Jan. 18, 2023) (unpublished manuscript), <https://papers.ssrn.com/abstract=3625638> [<https://perma.cc/W63J-5RD8>]; Miriam A. Cherry & Ana Santos Rutschman, *Gig Workers as Essential Workers: How to Correct the Gig Economy Beyond the COVID-19 Pandemic*, 35 ABA J. LAB. & EMP. L. 11, 15 (2020).

⁴⁷ Scott Wallsten, *The Competitive Effects of the Sharing Economy: How is Uber Changing Taxicab?*, 22 TECH. POL’Y INST. 1–21 (2015).

addition, the new competitive sources are increasing accessibility of services and products without racial and wealth differences in populations.⁴⁸

A well-known argument in favor of the platforms is that the gig economy provides new sources of income for middle-class suppliers and new types of jobs with flexibility and autonomy and thus produces better employment conditions for lower-class people. By that, it is claimed, among other reasons mentioned above, that the sharing economy encourages equalization.⁴⁹ Indeed, the sharing economy equalizing myth has some grip on reality in the labor market, but it is only one side of the coin. In what follows, we take a closer look at the other side. We contend that the gig economy has some unintended consequences and worrying influences on the labor market for both participants in the gig economy and, as a matter of negative externalities, for non-participating workers. We divide those effects into three main aspects: (1) miscategorization of workers, (2) bad and exploitative working conditions, and (3) workers' discrimination.

1. Miscategorization of Workers

Most judicial systems worldwide, and particularly in the U.S., hold a binary classification of workers: they can be classified as employees or independent contractors.⁵⁰ Given the triangular relationships (platform-consumer-supplier), the short term of the gig, and the high degrees of flexibility and autonomy, online platforms blur the boundaries between the two classifications. It fits neither of the old working categories.⁵¹ This problem can be regarded as a regulatory arbitrage.⁵² Just like other arbitrages, this one is also utilized by businesses (the platform companies in this case) for their own benefit. To avoid "taxes, pension, and other employee benefits as well as liability for discrimination, sexual harassment, and work injuries,"⁵³ the platforms intentionally treat their workers as independent contractors.

The status of independent contractors saves significant costs to the platforms and reduces the regulatory burden.⁵⁴ Arguably, "the gig-economy's success depends on the misclassification of millions of workers. After all, companies like Uber can save up to 30% on payroll taxes alone with the independent contractor classification."⁵⁵ For that, platforms' terms and

⁴⁸ Mingshu Wang & Lan Mu, *Spatial Disparities of Uber Accessibility: An Exploratory Analysis in Atlanta, USA*, 67 COMPUTS. ENV'T & URB. SYS. 169, 174 (2018).

⁴⁹ McGinnis, *supra* note 16; SUNDARARAJAN, *supra* note 5; Li et al., *supra* note 44.

⁵⁰ Chenguo Zhang, *Sharing Economy: Challenges for the Labor Market and the Labor Law in China and Globally—A Micro-Comparative Analysis of the EU, US, and Asia*, 23 EUR. BUS. ORG. L. REV. 1025 (2022); Travis Clark, *The Gig is Up: An Analysis of the Gig-Economy and an Outdated Worker Classification System in Need of Reform*, 19 SEATTLE J. FOR SOC. JUST. 769, 770 (2021).

⁵¹ Alexander Kondo & Abraham Singer, *Labor Without Employment: Toward a New Legal Framework for the Gig Economy*, 3 J. LAB. & EMP. L. 331, 334 (2020); Alex Kirven, *Whose Gig Is It Anyway: Technological Change, Workplace Control and Supervision, and Workers' Rights in the Gig Economy Comments*, 89 U. COLO. L. REV. 249, 252 (2018).

⁵² Seth D. Harris, *Workers, Protections, and Benefits in the U.S. Gig Economy*, GLOB. L. REV. (2018), <http://papers.ssrn.com/abstract=3198170> [<https://perma.cc/LKK3-7FUK>].

⁵³ Clark, *supra* note 49, at 770.

⁵⁴ Juliet B. Schor, William Attwood-Charles, Mehmet Cansoy, Isak Ladegaard & Robert Wengronowitz, *Dependence and Precarity in the Platform Economy*, 49 THEORY & SOC'Y 833, 836 (2020); Joep Cornelissen & Magdalena Cholakova, *Profits Uber Everything? The Gig Economy and the Morality of Category Work*, 19 STRATEGIC ORG. 722, 726 (2021).

⁵⁵ Clark, *supra* note 50, at 771.

conditions typically specify that platform workers are freelancers, irrespective of the actual conditions under which they work. In other words, gig-economy platforms make more significant profits at the expense of misclassifying employees as self-employed.⁵⁶

Moreover, researchers claim that the rise of the sharing economy has led to the creation of a new type of non-standard employment: “on-demand employment.”⁵⁷ Digital platforms facilitate this type of employment by reducing transaction costs and allowing supply and demand for employment to be matched in real-time. More specifically, on-demand employment can be divided into two broad categories: gig employment and cloud working.⁵⁸ Gig employment is characterized by individuals using digital platforms to search for customers to whom they can offer their services. Cloud working involves companies making requests online for tasks or services they need. Online job markets, such as Amazon Mechanical Turk, Freelancer, and Upwork are used to request a wide range of services, such as computer programming, design, translation, administrative, or accounting tasks.

The misclassification issue is probably the main reason for the massive global increase in lawsuits against platforms.⁵⁹ The platforms do not stand aside but instead fight back to maintain workers’ classification. One of the most interesting examples is California Assembly Bill 5 (“AB5”). AB5, popularly known as the “gig worker bill,” was special legislation that went into effect on January 1, 2020. AB5 required that companies apply a three-factor test (known as the “ABC test”) to determine whether workers should be classified as employees or contractors.⁶⁰ AB5 extended the new employment classification to all state employment laws, including protections for minimum wage, overtime, unemployment insurance, and workers’ compensation. Soon after the passage of AB5, labor-platform companies Uber, Lyft, Postmates, DoorDash, and Instacart invested \$203 million in a ballot-initiative campaign, making it the most expensive ballot campaign in U.S. history. The initiative, known as Proposition 22, suggested exemptions from AB5 for “Transportation Network Companies” (“TNCs”) and “Delivery Network Companies” (“DNCs”).⁶¹ On November 3, 2020, California voters approved Proposition 22, overriding AB5 and thus returning the independent-contractor classification to most of the gig-economy.⁶²

⁵⁶ Muhammad Rashid, *Exploitation in a Disruptive and Unjust Gig-Economy*, 7 J. ECON. BIBLIOGRAPHY 163, 166 (2020).

⁵⁷ Josep Mestres Domènech, *The Sharing Economy and the Labour Market*, CAIXABANK RSCH. (July 13, 2018), <https://www.caixabankresearch.com/en/economics-markets/labour-market-demographics/sharing-economy-and-labour-market> [<https://perma.cc/KLV9-EPG3>].

⁵⁸ *Id.*

⁵⁹ Michael L. Nadler, *Independent Employees: A New Category of Workers for the Gig Economy*, 19 N.C. J.L. & TECH. 443, 444 (2017); Joshua Healy, Daniel Nicholson & Andreas Pekarek, *Should we Take the Gig Economy Seriously?*, 27 LAB. & INDUS. 232 (2017).

⁶⁰ Assemb. B. 5, 2019–2020 Leg., Reg. Sess. (Cal. 2019).

⁶¹ Veena B. Dubal, *Economic Security & the Regulation of Gig Work in California: From AB5 to Proposition 22*, 13 EUR. LAB. L.J. 51, 55 (2022).

⁶² See Savannah M. Singletary, *The Gig is Up: California’s Crackdown on the Gig Economy*, 43 CAMPBELL L. REV. 521, 534 (2021).

The outcome of the misclassification is turning those workers into “precarious workers.”⁶³ They do not get the benefits and protections that other workers receive; these include “overtime protection, minimum wage, health protection, disability, unemployment benefits, sick leave and the ability to engage in collective action.”⁶⁴ Independent contractors are located outside the social safety net of employee compensation, social security contributions, paid leave, and health insurance.⁶⁵ Moreover, it was claimed that “the lack of protection leaves workers vulnerable to the vagaries of the labour market, undermines their rights and dignity, exacerbates poverty and inequality, and jeopardizes the implicit social contract of modern societies.”⁶⁶

Indeed, we foresaw the dire consequences of the lack of social defense during the COVID-19 pandemic. The pandemic lockdowns left many gig-workers at home,⁶⁷ unable to seek a safety net from the unemployment system, while the platforms were absolved of any responsibility to provide socio-economic support.⁶⁸ Paradoxically, the pandemic made workers even more dependent on platform gigs’ incomes.⁶⁹ In a kind of catch-22 situation, workers are left without a social safety net because of the gig-work, but they do not have many choices but to go back to gig work because they do not have a social safety net.

This is just the tip of the iceberg regarding problems caused by the misclassification of gig workers. The issue of employment without the classification of employee is also one of the leading causes for most of the problems and injustices we will mention below. Thus, we claim that it is the first and foremost challenge for policymakers to address.⁷⁰

2. Bad and Exploitative Working Conditions

This section presents various leading examples of typical lousy working conditions common to most gig-work platforms. Some of them are truly unique to the platforms.⁷¹ Others are more common and can be seen in other economic sectors, although their established presence in the sharing

⁶³ Cornelissen & Cholakova, *supra* note 54.

⁶⁴ Rashid, *supra* note 56.

⁶⁵ ALEXANDREA J. RAVENELLE, *HUSTLE AND GIG: STRUGGLING AND SURVIVING IN THE SHARING ECONOMY* (2019).

⁶⁶ Christina Behrendt, Quynh Anh Nguyen & Uma Rani, *Social Protection Systems and the Future of Work: Ensuring Social Security for Digital Platform Workers*, 72 INT’L SOC. SEC. REV. 17, 19 (2019).

⁶⁷ Bénédicte Apouey, Alexandra Roulet, Isabelle Solal & Mark Stabile, *Gig Workers During the COVID-19 Crisis in France: Financial Precarity and Mental Well-Being*, 97 J. URB. HEALTH 776, 776 (2020) (“Our analysis revealed that 3 weeks into the lockdown, 56% of our overall sample had stopped working and respondents had experienced a 28% income drop on average.”).

⁶⁸ Dubal, *supra* note 60; Spurk & Straub, *supra* note 37; Sazzad Parwez & Rajiv Ranjan, *The Platform Economy and the Precarisation of Food Delivery Work in the COVID-19 Pandemic: Evidence from India*, 15 WORK ORG. LAB. & GLOBALISATION 11, 13 (2021); Francis Kuriakose & Deepa Kylasam Iyer, *A Case for Worker-Centric Platform Economy in India*, CTR. FOR ADVANCED STUDY OF INDIA, UNIV. OF PA. (Oct. 25, 2021), <https://casi.sas.upenn.edu/iit/kuriakoseiyer2021> [<https://perma.cc/ZR5Y-F2WZ>].

⁶⁹ Alexandra J. Ravenelle, Ken Cai Kowalski & Erica Janko, *The Side Hustle Safety Net: Precarious Workers and Gig Work During COVID-19*, 64 SOCIO. PERSPS. 898, 909 (2021).

⁷⁰ HARALD HAUBEN, *THE PLATFORM ECONOMY AND PRECARIOUS WORK* (2020).

⁷¹ Uttam Bajwa, Denise Gastaldo, Erica Di Ruggiero & Lilian Knorr, *The Health of Workers in the Global Gig Economy*, 14 GLOBALIZATION & HEALTH 1, 2–3 (2018).

economy leaves room for concern about the increase of inequalities and distributive injustices associated with the sharing-economy labor market.

a. Algorithmic Control and Management

There is increasing criticism in the literature about the algorithmic management model of the platforms. The argument is that the algorithms are “the boss” and fully manage workers on most of the platforms. This involves platforms utilizing the fact that they hold more information than the workers do relative to traditional employers; platforms then use this information to coordinate, manage, and govern the “workplace.”⁷² Although algorithmic management techniques vary from platform to platform⁷³—and despite the fact that this type of management does grant a greater degree of autonomy to the employee—it seems that the overall result is that algorithmic management weakens the employee’s power to resist organizational rules and produces significant work pressure.⁷⁴ In the following paragraphs, we will illustrate these assertions using a couple of leading examples.

First, algorithmic management causes informational asymmetries in a way that creates an unbalanced power of the platforms over the workers. In other words, algorithmic management is facilitated via informational asymmetries. These include continuous data collection and surveillance via the application used by the workers, the production of workers’ uncertainty about how surge pricing works, and the fact that workers must blindly accept offers (as rides or deliveries). Moreover, the algorithm achieves “soft control” via techniques such as gamification and behavioral nudges.⁷⁵ For example, in ride-hail and delivery, platforms blind providers by withholding information about incoming jobs, which reduces worker autonomy and income.⁷⁶

Second, this type of management causes tight and problematic surveillance and supervision. Some refer to the close algorithmic monitoring as modern Taylorism.⁷⁷ Taylor’s “scientific management principles” include scientific task fragmentation that are subordinated to the setting of well-organized and circumscribed physical spaces (for example, the factory) endowed with conspicuous personnel aimed at continuous monitoring and control.⁷⁸

Within the digital platform, in turn, the Tayloristic organizational principles are realized just by connecting those who perform tasks via the platform’s application to the web. Uber is a paradigmatic example in this respect. The company’s core is reduced to relatively few managers and data

⁷² Kalle Kusk & Claus Bossen, *Working with Wolt: An Ethnographic Study of Lenient Algorithmic Management on a Food Delivery Platform*, 6 PROC. ACM HUM.-COMPUT. INTERACT. 1, 2 (2022).

⁷³ Kathleen Griesbach, Adam Reich, Luke Elliot-Negri & Ruth Milkman, *Algorithmic Control in Platform Food Delivery Work*, 5 SOCIUS 1, 2 (2019).

⁷⁴ Vallas & Schor, *supra* note 23; Kiplin Kaldahl, *Health and Safety in the Gig Economy: A Qualitative Investigation with TaskRabbit Workers* (M.S. thesis, Colo. State Univ., 2020).

⁷⁵ Schor et al., *supra* note 54, at 837.

⁷⁶ Vallas & Schor, *supra* note 23, at 278.

⁷⁷ Francesco Bogliacino, Cristiano Codagnone, Valeria Cirillo, Dario Guarascio, *Quantity and Quality of Work in the Platform Economy*, in HANDBOOK OF LABOR, HUMAN RESOURCES AND POPULATION ECONOMICS 1, 12 (Klaus F. Zimmermann ed., 2020).

⁷⁸ F.W. TAYLOR, *THE PRINCIPLES OF SCIENTIFIC MANAGEMENT* (New York and London: Harper & Brothers Publishers, republished in 1967).

analysts updating and refining algorithms while the rest—including the two million drivers operating almost globally via the Uber App—are external to the company’s perimeter (even in legal terms). At the same time, Uber’s managers can track and control performance-related information of drivers regardless of their location.⁷⁹

Other scholars, however, suggest that algorithmic management differs from Taylorism because it allows more autonomy, flexibility, and task variety.⁸⁰ Yet they too recognize its harmful side effects, including “overwork, sleep deprivation and exhaustion as a consequence of the weak structural power of workers vis-a-vis clients.”⁸¹

Finally, besides a high degree of tight surveillance, the platforms control and supervise workers through a rating system.⁸² For instance, Uber extensively monitors its drivers through various performance metrics that are provided to the drivers as feedbacks, in which they are compared to other drivers. This creates a hierarchical space in which “all participants relate to one another continuously and competitively.”⁸³ This hierarchal ratings system is the only form of workers’ relationality supported by the platform. For Uber, its drivers are isolated bubbles.

Besides the “disciplinary and incentivizing effects” of the performance metrics, customer ratings also control service providers. In an environment of outsourced quality control by customers of on-demand platforms, a “generalized audit culture” is created where service providers are continually pushed to “self-optimize and cater to the customer’s every whim.”⁸⁴

Studies show that workers report immense stress due to the algorithmic management obscurity and the rating systems.⁸⁵ Furthermore, in the case of professional sharing-economy platforms (such as platforms for creative gig work, for example Upwork and PeoplePerHour), the model of platforms is designed to require professional workers to start from scratch in order to get a reputation; thus, platform members become “slaves” to their ratings and reviews and are significantly influenced by them.⁸⁶

b. Low Level of Income

As part of the sharing economy equalization myth, workers and others tend to believe that, in addition to flexibility, gig-economy platforms offer a good reward level for unskilled workers.⁸⁷ Some studies have challenged this

⁷⁹ Bogliacino et al., *supra* note 77.

⁸⁰ Alex J. Wood, Mark Graham, Vili Lehdonvirta & Isis Hjorth, *Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy*, 33 WORK, EMP. & SOC’Y 56, 70 (2019).

⁸¹ *Id.* at 70.

⁸² Wood et al., *supra* note 80.

⁸³ Jane I. Guyer, *The Eruption of Tradition?*, 10 ANTHROPOLOGICAL THEORY 123, 126 (2010); van Doorn, *supra* note 12, at 903.

⁸⁴ *Id.*

⁸⁵ Kaldahl, *supra* note 74.

⁸⁶ Zsófia Tóth, Ekaterina Nemkova, Gábor Hizsák & Peter Naudé, *Social Capital Creation on Professional Sharing Economy Platforms: The Problems of Rating Dependency and the Non-Transferability of Social Capital*, 144 J. BUS. RSCH. 450, 458 (2022).

⁸⁷ Hall & Krueger, *supra* note 40; Zach W.Y. Lee, Tommy K.H. Chan, M.S. Balaji, Alain Yee-Loong Chong, *Why People Participate in the Sharing Economy: An Empirical Investigation of Uber*, 28 INTERNET RSCH. 829, 836 (2018).

assertion, revealing that the income from gig work tends to be very low, volatile, unstable, insecure, and unpredictable.⁸⁸

The level of payment depends on several factors. Typically, gig workers are paid by task rather than by hour. That also means that they are subject to unpaid time.⁸⁹ In addition, workers may have to bear costs related to platform work (for example, materials, equipment, and other expenses such as a bicycle, gas, or even insurance costs). On top of that, workers pay fees to use the platform (before registration or after a gig is done).⁹⁰ As a result, after accounting for these costs, the pay can be (very) low, not only the total amount earned, but also the amount earned per time unit in comparison to others performing similar tasks outside of the platform economy.⁹¹

Another explanation for the low income is that sharing-economy companies are accelerating a “fragmentation process” by breaking down whole jobs into discrete task elements, each of which is then auctioned to the lowest bidder. Studies show that this process is precipitating a “race to the bottom” for wages and other performance expectations (like delivery times).⁹² Finally, the academic discussion also attributes the precarious work issue to an outsourcing of traditional employer risks from corporations to workers (such as low demand risks and legal risks such as fines due to unlawful hosting or driving).⁹³

There is strong evidence that the gig economy causes income reduction. In the transportation sector, alongside the rapid growth in the number of drivers, there has been a steady decline in average monthly earnings. Average monthly earnings among active drivers in the first quarter of 2018 were 53% lower than their peak in the first quarter of 2014, a downward trend observed even among the highest earning and most engaged drivers.⁹⁴

Another study analyzed survey results of over 1,100 Uber and Lyft ride-hailing drivers, showing that a driver’s median profit is \$3.37 per hour before taxes, and 74% of drivers earn less than the minimum wage in their country. Moreover, 30% of drivers lose money once vehicle expenses are accounted for.⁹⁵ A similar study on Deliveroo’s riders in Belgium shows more of the same.⁹⁶

Extending to other sectors, a comprehensive study examined five gig-economy platforms (Amazon Mechanical Turk (U.S.); CrowdFlower (U.S.);

⁸⁸ HAUBEN, *supra* note 70.

⁸⁹ *Id.* At 32.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² Healy et al., *supra* note 59, at 236.

⁹³ Peter Timko & Rianne van Melik, *Being a Deliveroo Rider: Practices of Platform Labor in Nijmegen and Berlin*, 50 J. CONTEMP. ETHNOGRAPHY 497, 501 (2021); Alexandria J. Ravenelle, *Digitalization and the Hybridization of Markets and Circuits in Airbnb*, 23 CONSUMPTION MKTS. & CULTURE 154, 157 (2020); Hoang et al., *supra* note 9; see also Yifat Aran & Raviv Murciano-Goroff, *Equity Illusions*, J. L. ECON. ORG. (forthcoming 2023) at 35, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3953823 (cautioning that the deregulation of equity-based compensation in private issuers may enable these companies to shift greater risks onto gig workers through the use of securities).

⁹⁴ FARRELL ET AL., *supra* note 21, at 23.

⁹⁵ Stephen Zoepf, Stella Chen, Paa Adu & Gonzalo Poso, *The Economics of Ride Hailing: Driver Revenue, Expenses and Taxes*, 18 (MIT Ctr. for Energy & Env't Pol'y Rsch., Working Paper No. 2018-005, 2018).

⁹⁶ Jan Drahokoupil & Agnieszka Piasna, *Work in the Platform Economy: Deliveroo Riders in Belgium and the SMART Arrangement* 19 (Eur. Trade Union Inst., Working Paper No. 2019.01, 2019).

Microworkers (U.S.); Clickworker (Germany); Prolific (U.K.) and found that the average remuneration across them was \$4.43 per hour, and \$3.31 per hour when total paid and unpaid hours were considered. Median earnings were even lower at \$2.16 per hour.⁹⁷

Another study, investigating the impacts of the COVID-19 pandemic on gig workers, surveyed 302 gig-economy workers in California. Eight out of ten workers said their current pay was insufficient to meet their household expenses. One-third did not have enough money to buy groceries; another 39% were close to not having enough. One in five (21%) did not have money for the next month's rent, and more than one-third (34%) were not sure if they would have enough.⁹⁸

Finally, contrary to the belief that gig workers are working in these jobs only as supplementary income, an enormous number of people in fact depend solely on gig-work income.⁹⁹ As a result of the low income, their socio-economic situation is deteriorating, and the social gaps are widening.

c. Health, Safety, and Mental Risks

The profile of most sharing-economy jobs often involves health, safety, and mental risks. These might be occupational-health risks, like an increased risk of traffic accidents for Uber drivers and bike couriers, or musculoskeletal injuries associated with repetitive tasks like typing.¹⁰⁰ Additional sources of risk also include the potential danger of entering an unfamiliar home to provide cleaning or care-giving services. These challenges are made worse in jurisdictions without appropriate occupational-health and personal-security regulations and enforcement that apply to workers who are not considered employees.

As we mentioned earlier, algorithmic management could cause overwork, sleep deprivation, exhaustion, and high stress and can raise interpersonal safety risks.¹⁰¹ In a survey done among TaskRabbit workers ("Taskers") about their health concerns, it was found that the fact that the platform does not provide health insurance was a more salient concern for Taskers who did not have insurance through another source, such as a spouse or employer.¹⁰² The most prominent safety concern reported by Taskers was ergonomic risks related to physical tasks such as lifting, which is concerning given that Taskers often either work alone or with strangers. Taskers also cited interpersonal safety risks as a major concern, especially when Taskers were female.¹⁰³

⁹⁷ JANINE BERG, MARIANNE FURRER, ELLIE HARMON, UMA RANI & M. SIX SILBERMAN, DIGITAL LABOUR PLATFORMS AND THE FUTURE OF WORK: TOWARDS DECENT WORK IN THE ONLINE WORLD 49 (2018).

⁹⁸ LUCERO HERRERA, BRIAN JUSTIE, TIA OONSE & SBA WAHEED, WORKER OWNERSHIP, COVID-19, AND THE FUTURE OF THE GIG ECONOMY 3 (2020).

⁹⁹ ANDERSON ET AL., *supra* note 27, at 6 ("31% of current or recent gig workers—representing 3% of U.S. adults overall—say this has been their main job over the past 12 months."); *see also* CRISTIANO CODAGNONE & BERTIN MARTENS, SCOPING THE SHARING ECONOMY: ORIGINS, DEFINITIONS, IMPACT AND REGULATORY ISSUES 17 (2016).

¹⁰⁰ Bajwa et al., *supra* note 71, at 2.

¹⁰¹ Wood et al., *supra* note 80; Kaldahl, *supra* note 74.

¹⁰² Kaldahl, *supra* note 74, at 48.

¹⁰³ *Id.*

A recent study investigated the risk-behavior characteristics of meal-delivery couriers at urban intersections in Beijing. According to the study, delivery couriers on electric bicycles have higher traffic-accident involvement as well as higher fatality and injury rates, not only because delivery couriers are more often exposed to traffic environment, but also because they show more risky traffic behaviors (for example, crossing a red light) than normal electric-bicycle riders, as a result of work-related factors, such as time pressure, communication with customers, and navigation issues.¹⁰⁴

Above all, the COVID-19 pandemic significantly increased the insecurity and precarious nature of gig work. More generally, the pandemic created an uneven distribution of remote- and proximity-work opportunities and risks following lines of social privilege: middle- and upper-class workers can mostly work safely at home, while working-class and precarious “last-mile workers” are forced into out-of-home occupations, both essential and non-essential. More specifically in the gig-platform context, platforms tried to minimize that risk by offering “contactless delivery” services that require riders not to hand-deliver meals, thereby reducing infection risks for customers.¹⁰⁵ However, the work of drivers cannot be contactless, as they must still interact with restaurant staff, circulate in public spaces, and touch potentially contaminated surfaces.¹⁰⁶

Finally, according to a survey study conducted following the pandemic among platform workers, most (78%) of the workers reported they had not been able to communicate with their companies about health and safety needs and concerns. Three-quarters said the companies were doing little or nothing to protect them from the pandemic.¹⁰⁷ A study from India showed that platform workers often had to pay out of pocket for safety equipment such as face masks and hand sanitizer, in addition to fuel and vehicular-maintenance expenses.¹⁰⁸ In the absence of specific policies and guidelines, some Indian platforms designed perverse incentive mechanisms such as the promise of one-time insurance payments against health risks and continued to extract longer work hours from their employees.¹⁰⁹

d. Inability to Unionize

One of the main aspects that influence working conditions is gig workers’ inability to unionize and collectively bargain. As one study argued, the “spatially fragmented nature of some platforms means that workers from

¹⁰⁴ Hua Qin, Yuhao Wei, Qidi Zhang & Liang Ma, *An Observational Study on the Risk Behaviors of Electric Bicycle Riders Performing Meal Delivery at Urban Intersections in China*, 79 *TRANSP’N RSCH. PART F: TRAFFIC PSYCH. & BEHAV.* 107, 114 (2021).

¹⁰⁵ Doris Yu, *Deliveroo to Launch Contactless Delivery in Asia Amid Covid-19 Outbreak*, *TECH ASIA* (Mar. 16, 2020), <https://www.techinasia.com/deliveroo-launch-contactless-delivery-asia-covid19> [<https://perma.cc/L6TW-7RZC>].

¹⁰⁶ Laura Robinson, Jeremy Schulz, Aneka Khilnani, Hiroshi Ono, Shelia R. Cotton, Noah McClain, Lloyd Levine, Wenhong Chen, Gejun Huang, Antonio A. Casilli, Paola Tubaro, Matías Dodel, Anabel Quan-Haase, Maria Laura Ruiu, Massimo Ragnedda, Deb Aikat & Natalia Tolentino, *Digital Inequalities in Time of Pandemic: COVID-19 Exposure Risk Profiles and New Forms of Vulnerability*, 25 *FIRST MONDAY* 42 57 (2020).

¹⁰⁷ HERRERA ET AL., *supra* note 98, at 3.

¹⁰⁸ Kuriakose & Kylasam Iyer, *supra* note 68, at 1.

¹⁰⁹ *Id.*

around the world are brought into competition with one another for the same jobs.”¹¹⁰ Where more people from low-income countries can participate in the competition, it only gets harsher.¹¹¹ In terms of organized work, platform workers have little ability to negotiate wages or working conditions with their employers who are often on the other side of the world. Consequentially, the new global market for work provides workers with jobs characterized by long and irregular hours and relatively low income.¹¹²

There are currently no agreements for collective bargaining with gig-economy workers, leaving workers unable to collectively negotiate improved working conditions or wages.¹¹³ In addition to that, many platforms make it very difficult for workers to communicate with one another. Furthermore, most platforms position themselves as intermediaries rather than as employers, which means it is less clear who is the authorized supervisor with whom workers can negotiate.¹¹⁴

3. Discrimination and Stereotypic Biases

In the face of utopian promises of a more egalitarian world, there is increasing evidence that this new world of gig work replicates old discrimination and stereotypic biases, thus reflecting or even exacerbating old disparities.¹¹⁵ The algorithmic management style creates a model in which not only is the workplace inflected by racial and gender inequalities, but these inequalities are also encoded into the software infrastructures of on-demand platforms, further increasing the discriminatory effect.¹¹⁶ In the following section we will describe, in detail, the impact of well-known discriminatory practices and powers on the gig-platform ecosystem.

a. Gender

Even though women are often equally or more represented than men in the gig system, they continue to be punished by gender stereotypes, despite the veil of anonymity created in most of the platforms.¹¹⁷ But the sources of gender disparities in the platform world often do not result from either the

¹¹⁰ Mark Graham & Jamie Woodcock, *Towards a Fairer Platform Economy: Introducing the Fairwork Foundation* 29 ALTERNATE ROUTES 242, 243 (2018).

¹¹¹ Mark Graham, Isis Hjorth & Vili Lehdonvirta, *Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods*, 23 TRANSFER: EUR. REV. LAB. & RSCH. 135, 135 (2017); see also Anat Alon-Beck, Michael Agmon-Gonnen and Darren Rosenblum, *Duty to Diversify*, 75 VAND. L. REV. 97 (2022); Anat Alon-Beck, Michal Agmon-Gonnen and Darren Rosenblum, *No More Old Boys' Club: Institutional Investors' Fiduciary Duty to Advance Board Gender Diversity*, 55 U.C. DAVIS L. REV. 102 (2021).

¹¹² Graham & Woodcock, *supra* note 110, at 243–44.

¹¹³ Mark Graham, Jamie Woodcock, Richard Heeks, Paul Mungai, Jean-Paul Van Belle, Darcy du Tont, Sandra Fredmane, Abigail Osiki, Anri van der Spuyf & Six M. Silberman, *The Fairwork Foundation: Strategies for Improving Platform Work in a Global Context*, 112 GEOFORUM 100, 101 (2020); see also V. J. Schapers, *Protecting Workers in the Platform Economy, an Analysis of Tactics Used by Labor Unions* (Bachelor's Thesis, Univ. of Twente, 2018), <http://essay.utwente.nl/75594/> [<https://perma.cc/BP6G-XE3S>].

¹¹⁴ *Id.*

¹¹⁵ Hoang et al., *supra* note 9.

¹¹⁶ van Doorn, *supra* note 12, at 907.

¹¹⁷ CRISTIANO CODAGNONE, FABIENNE ABADIE & FEDERICO BIAGI, *THE FUTURE OF WORK IN THE 'SHARING ECONOMY'* 6 (2016).

deliberate actions of platform designers to exclude women, or even necessarily from what are thought of as “implicit biases” in other contexts.¹¹⁸

First, the platform economy appears to be struggling to change the landscape of the traditional gender division of labor. In many cases it is women who choose to participate in more traditionally feminine chores, such as house cleaning, laundry, or food shopping. Therefore, it is difficult to argue in advance that the platform economy can reduce gender gaps.¹¹⁹

When exploring the earnings of over a million Uber drivers in the U.S., a gap of 7% between female and male drivers was found. However, it has been suggested that this gap is due to platform experience, preferences, and constraints about where to work.¹²⁰ These gaps have not yet been explored on task-gig platforms but will probably show the same results for the same reasons, as suggested by a study on TaskRabbit. This survey study revealed that women are far more likely than men to avoid doing a task, primarily for safety and distance reasons. As such, although women comprise the majority of taskers, the number of available tasks is somewhat smaller for them than it is for male workers. In other words, the study found that a larger pool of women is likely competing for a smaller pool of tasks, which may have an effect on wages over time and can lead to a gender-wage gap.¹²¹

More evidence was provided in a survey of platform-based food delivery. Female workers expressed deep resentment about the daily indignities they suffered at the hands of their most privileged customers, the low pay they received, and the degrading treatment meted out by the companies for which they work.¹²²

These figures are worrying given that women depend on gig work more than men. Women working on gig-economy platforms are often in a particularly precarious position because they are more likely to have part-time employment or otherwise be unemployed, while men more often engage in platform work alongside full-time employment.¹²³

b. Race

Like gender, old discrimination practices and biases also arise when it comes to race. Even though gig-economy companies “employ” their share of white middle-class men, the majority of cleaners, janitors, and home-care providers operating in the gig economy are working-class men and women of color, especially in urban areas.¹²⁴ Studies have found that race predicts

¹¹⁸ Naomi Cahn, June Carbone & Nancy Levit, *Discrimination by Design?*, 51 ARIZ. ST. L.J. 1, 20 (2019).

¹¹⁹ Hoang et al., *supra* note 9; Ruth Milkman, Luke Elliott-Negri, Kathleen Griesbach & Adam Reich, *Gender, Class, and the Gig Economy: The Case of Platform-Based Food Delivery*, 47 CRITICAL SOCIO. 357, 357 (2021); CODAGNONE ET AL., *supra* note 117.

¹²⁰ Cody Cook, Rebecca Diamond, Jonathan V. Hall, John A. List & Paul Oyer, *The Gender Earnings Gap in the Gig Economy: Evidence from over a Million Rideshare Drivers*, 88 REV. ECON. STUD. 1, 7 (2021).

¹²¹ Jacob Thebault-Spieker, Loren G. Terveen & Brent Hecht, *Avoiding the South Side and the Suburbs: The Geography of Mobile Crowdsourcing Markets*, in PROCEEDINGS OF THE 18TH ACM CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK & SOCIAL COMPUTING 265, 266 (2015).

¹²² Milkman et al., *supra* note 119, at 358.

¹²³ Martin Krzywdzinski & Christine Gerber, *Varieties of Platform Work. Platforms and Social Inequality in Germany and the United States* 27 (Weizenbaum Inst. for the Networked Soc’y, Working Paper No. 7, 2020).

¹²⁴ van Doorn, *supra* note 12.

participation in rideshare driving, house and laundry cleaning, and the selling of consumer brands.¹²⁵

One of the main problems of the platforms is that racial biases overshadow and bypass the color blindness of digital systems. For example, in Uber's case, any biases held by passengers may be funneled through the ratings-model feedback mechanism and could have a disproportionately adverse impact on drivers who are people of color. Passengers might intentionally, or unintentionally but due to their inherited biases, rate drivers who are people of color less charitably.¹²⁶ Through the rating system, which serves as an essential part in most of the platforms,

[C]onsumers can directly assert their preferences and biases in ways that companies would be prohibited from doing directly. In effect, companies may perpetuate bias without being liable for it, as the grounds for firing or 'deactivating' a particular driver may be derived from a large corpus of individual ratings, that perform an imbedded bias in their ratings.¹²⁷

c. Age

As explained with regards to race and gender, for tasks intermediated by a platform yet carried out in real life, it becomes more difficult to disaggregate factors such as age from job performance. Customers see the Uber driver who will pick them up or the worker from TaskRabbit who will assemble their IKEA furniture and receive information about the worker's age as well as race and gender. For example, on driving platforms such as Uber, stereotypes about older drivers as being slower, less reactive, and less safe, may come into play, although statistics show that older drivers have no more accidents on average than younger drivers.¹²⁸

Older workers confront a particular set of pernicious stereotypes when dealing with technology and on-demand platforms. Common stereotypes about older workers include the idea that they cost too much money; that they do not understand technology; that they are unmotivated, more accident-prone, and resistant to change.¹²⁹ These outdated stereotypes are driving more significant implications in the context of the gig-platform economy since it is heavily dependent on new technologies and frequent changes in the workplace ecosystem.

C. THE HOUSING MARKET

One of the most prominent, successful, and lucrative segments of the sharing economy is the short-term rentals market.¹³⁰ Paramount above all is of course Airbnb, a home-sharing platform, which, together with Uber, was considered the most significant company in the sharing economy pre-

¹²⁵ Hoang et al., *supra* note 9, at 695; *see also* ANDERSON ET AL., *supra* note 27.

¹²⁶ Brishen Rogers, *The Social Costs of Uber*, 82 U. CHI. L. REV. DIALOGUE 85, 95 (2015).

¹²⁷ Alex Rosenblat, Karen Levy, Solon Barocas & Tim Hwang, *Discriminating Tastes: Customer Ratings as Vehicles for Bias*, DATA & SOC'Y 1, 8 (2016).

¹²⁸ Miriam A. Cherry, *Age Discrimination in the On-Demand Economy and Crowdfork*, 40 BERKELEY J. EMP. & LAB. L. 29, 48 (2019).

¹²⁹ *Id.* at 49.

¹³⁰ DIRECTORATE-GENERAL FOR INTERNAL MARKET, *supra* note 24, at 72.

COVID-19.¹³¹ Founded in 2008 in San Francisco, Airbnb has over four million hosts and over one billion guests in over one hundred thousand cities and towns in almost every part of the world.¹³² Due to its unequivocal market share, it will serve as our prime example.

In accordance with the sharing economy equalizing myth, it is also commonly claimed that the short-term rentals sharing market in general—and Airbnb in particular—has the power to reduce social disparities and bring about greater efficiency and, simultaneously, fairer distribution of wealth. The basic rationale for this claim is that with Airbnb, people can increase their income through a short-term rental of an unused resource in the property in which they live or own; at the same time, tourists and short-term visitors also benefit from falling prices following the increase in supply.¹³³

Airbnb's success relies on its ability to turn to its benefit the fundamental failures of the housing market. Through an effective digital and accessible platform, short-term rentals allow for the exploitation of two monopolistic powers that characterize the American housing market: governments that control land uses by zoning bylaws, and landowners who control the price and actual use of their properties. Though subject to zoning and rent controls, the concentration of landownership allows big landowners to raise markups excessively. The next section presents our novel claim that Airbnb has the power to exploit what we termed as the structural regulatory arbitrage. Following it we describe evidence on the impact it has on the market.

1. Airbnb's Power to Exploit the Structural Regulatory Arbitrage

The most significant economic failure of the housing market, as identified by much of the economic scholarship, is that this market is heavily regulated by local land-use policy—for example, zoning.¹³⁴ This regulation “appears to be the single most important influence on the supply of homes.”¹³⁵ In that sense, housing regulation is considered a limitation on the market that reduces the supply of developable land and therefore drives housing prices up.¹³⁶

Economists view zoning's “original sin” as the added extra costs to a construction project created by the restrictions on the size and type of

¹³¹ Suman Basuroy, Yongseok Kim & Davide Proserpio, *Estimating the Impact of Airbnb on the Local Economy: Evidence from the Restaurant Industry* (2020), <https://papers.ssrn.com/abstract=3516983> [<https://perma.cc/YBB3-6B64>].

¹³² *About us*, AIRBNB NEWSROOM, <https://news.airbnb.com/about-us/> [<https://perma.cc/J4XR-4C8W>].

¹³³ Georgios Zervas, Davide Proserpio & John W. Byers, *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry*, 54 J. MKTG. RSCH. 687, 708 (2017); Giovanni Quattrone, Davide Proserpio, Daniele Quercia, Licia Capra & Mirco Musolesi, *Who Benefits from the “Sharing” Economy of Airbnb?*, in PROCEEDINGS OF THE 25TH INTERNATIONAL CONFERENCE ON WORLD WIDE WEB 1385 (2016).

¹³⁴ Sara C. Bronin, *Zoning by a Thousand Cuts*, 50 PEPP. L. REV. 719 (2023).

¹³⁵ Joseph Gyourko & Raven Molloy, *Regulation and Housing Supply* 1 (Nat'l Bureau of Econ. Resch., Working Paper No. 20536, 2014). For a recent discussion, see Mihir Zaveri, *Why It's So Hard to Find an Affordable Apartment in New York*, N.Y. TIMES (Aug. 1, 2022) <https://www.nytimes.com/2022/08/01/nyregion/nyc-affordable-apartment-rent.html> [<https://perma.cc/Z9U9-VB4E>].

¹³⁶ Vicki Been, Ingrid Gould Ellen & Katherine O'Regan, *Supply Skepticism: Housing Supply and Affordability*, 29 HOUS. POL'Y DEBATE 25, 27 (2019).

housing units that can be built.¹³⁷ On the other hand, social scientists depict zoning's "sin" not in inefficiency but in discrimination and segregation:¹³⁸ zoning's original goal, and its often intended or unintended outcome,¹³⁹ is to exclude people of color and the poor.¹⁴⁰ Thus, zoning is not only a handicap on market efficiency, but also a mechanism that pushes away supply for a variety of products that could fit the needs of disadvantaged members of the population.

Airbnb's platform can cut across zoning's most rigid restriction: single-family zoning. While single-family zoning is targeted by growing waves of reform backed by the White House¹⁴¹—cities like Minneapolis, Portland, Sacramento, and Berkeley are currently working on effectively eliminating such zoning—it remains a widely popular form of regulation.¹⁴² A few states have begun to tackle single-family zoning by allowing accessory dwelling units.¹⁴³ At the same time, with Airbnb's platform, multiple families can make non-singular use of a property zoned as single-family—by renting away slices of a house or by renting a house for short terms with numerous users around the year.

Airbnb is also capable of overcoming land-use restrictions, most prominently the common restriction on single-land-use. Single-land-use is a common form of regulation, where residential uses are not allowed to co-exist with business uses (for example, retail, office). As Hirt observed, "The exclusivity of residential zoning districts is a deeply engrained planning and regulatory tradition in America."¹⁴⁴ Airbnb manipulates this restriction as it mixes non-residential tourist uses on the neighborhood level.

Another market characteristic of the housing market is the owners' monopoly power to decide if and how to utilize and price their properties. This power, which is grounded in property ownership, is limited by zoning, on the one hand, and by rent control, where it exists, on the other hand. Economists' opposition to both types of regulations¹⁴⁵ is based on their reluctance to consider the distributional effect of a no-regulation mode that they prefer for terms of efficiency. Indeed, where no regulation exists, the positive effect on housing is evident in rising prices. For instance, studies on

¹³⁷ Gyourko & Molloy, *supra* note 135; Edward L. Glaeser, Joseph Gyourko & Raven Saks, *Why is Manhattan so Expensive? Regulation and the Rise in Housing Prices*, 48 J.L. & ECON. 331, 333 (2005). Zoning laws have many more variations than size and number of units per lot.

¹³⁸ Allison Shertzer, Tate Twinam & Randall P. Walsh, *Zoning and Segregation in Urban Economic History*, 94 REGIONAL SCI. & URB. ECON. 1, 1 (2022).

¹³⁹ Peter Ganong & Daniel Shoag, *Why has Regional Income Convergence in the US Declined?*, 102 J. URB. ECON. 76, 92 (2017).

¹⁴⁰ Christopher Serkin, *Capitalization and Exclusionary Zoning*, in MEASURING THE EFFECTIVENESS OF REAL ESTATE REGULATION 15 (Ronit Levine-Schnur, ed., 2020).

¹⁴¹ Statement, The White House, Fact Sheet: The American Jobs Plan (Mar. 31, 2021), <https://www.whitehouse.gov/briefing-room/statementsreleases/2021/03/31/fact-sheet-the-american-jobs-plan/> [<https://perma.cc/CZG6-KPJ8>].

¹⁴² Bronin, *supra* note 134.

¹⁴³ *Id.*

¹⁴⁴ Sonia Hirt, *Form Follows Function? How America Zones*, 28 PLAN. PRAC. & RSCH. 204, 211 (2013).

¹⁴⁵ David H. Autor, Christopher J. Palmer & Parag A. Pathak, *Housing Market Spillovers: Evidence from the End of Rent Control in Cambridge, Massachusetts*, 122 J. POL. ECON. 661, 667 (2014); Werner Z. Hirsch, *Renting*, in ENCYCLOPEDIA OF LAW AND ECONOMICS VOL. III: THE REGULATION OF CONTRACTS 907 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000); Richard M. Alston, James R. Kearl & Michael B. Vaughan, *Is there a Consensus Among Economists in the 1990's?*, 82 AM. ECON. REV. 203, 206 (1992).

the removal of rent control support this claim.¹⁴⁶ Moreover, as a recent study on New York City's housing market shows, in a non-regulated environment of landownership concentration, landowners with higher concentration rates at the census-tract level¹⁴⁷ will always raise markups up to one third of rent prices.¹⁴⁸ In democratic regimes, anti-concentration regulation can rarely be found,¹⁴⁹ and recent attempts to advance such regulation are characterized as progressive and were not easily welcomed.¹⁵⁰

Airbnb provides an opportunity to amplify the effect of concentration as hosts can offer listings that they do not own. Many companies are offering "management services" in which they market and manage others' properties. Thus, the benefits of concentration are utilized and exacerbated without the burden of investing in landownership.

Ostensibly, regulation is potentially both the reason and the solution for housing-market failures. Into this murky water Airbnb entered, with the promise of bringing better efficiency and fairer distribution. In general, there is quite a bit of evidence showing the positive effects of Airbnb. Among others, studies found that Airbnb activity can create new jobs,¹⁵¹ increase employment even in the traditional hotel industry,¹⁵² and help smaller areas and businesses (for example, restaurants) grow and develop by increasing the volume of tourists.¹⁵³ However, the activity of sharing accommodation has a significant impact on the housing markets in which it operates.

Thus, to establish the actual contribution of the sharing economy to the field of accommodation, one must look at the overall result from a macro-level point of view—that is, not only on the impact on the tourism sector but on the entire housing sector and the implications of the changes on the local community.

2. The Actual Impact of Short-term Rentals on the Housing Market

In this Section, we will present some of the main adverse effects of short-term rentals on the housing market as empirically evidenced in the literature.

¹⁴⁶ David P. Sims, *Out of Control: What Can we Learn from the End of Massachusetts Rent Control?*, 61 J. URB. ECON. 129, 148 (2007); Autor et al., *supra* note 145; Konstantin A. Kholodilin, Andreas Mense & Claus Michelsen, *Market Break or Simply Fake? Empirics on the Causal Effects of Rent Controls in Germany* 13 (DIW Berlin, Discussion Paper No 1584, 2016); Lorenz Thomschke, *Distributional Price Effects of Rent Controls in Berlin: When Expectation Meets Reality 2* (CAWM, Discussion Paper No. 89, 2016).

¹⁴⁷ In NYC there are 4,919 census tracts. *Guide to 2010 State and Local Census Geography*, U.S. CENSUS, <https://www.census.gov/geographies/reference-files/2010/geo/state-local-geo-guides-2010/new-york.html> [<https://perma.cc/HPV4-HYY4>].

¹⁴⁸ C. Luke Watson & Oren Ziv, *Is the Rent Too High? Land Ownership and Monopoly Power* 3 (CESifo Working Paper No. 8864, 2021), <https://papers.ssrn.com/abstract=3774672> [<https://perma.cc/ZN3N-E6S9>].

¹⁴⁹ Meghan Joy & Ronald K. Vogel, *Beyond Neoliberalism: A Policy Agenda for a Progressive City*, 57 URB. AFFS. REV. 1372, 1380 (2021).

¹⁵⁰ Jon Stone, *Berlin Set to Hold Referendum on Banning Big Landlords and Nationalising Private Rented Housing*, THE INDEP. (Feb. 25, 2019, 6:02 p.m.), <https://www.independent.co.uk/news/world/europe/berlin-landlords-ban-germany-private-rent-housing-referendum-vote-a8796471.html> [<https://perma.cc/CS7N-D8QF>].

¹⁵¹ Zervas et al., *supra* note 133.

¹⁵² Dogru et al., *supra* note 45.

¹⁵³ Dimitri Ioannides, Michael Röslmaier & Egbert van der Zee, *Airbnb as an Instigator of 'Tourism Bubble' Expansion in Utrecht's Lombok Neighbourhood*, 21 TOURISM GEOGRAPHIES 822, 828 (2019); Basuroy et al., *supra* note 131.

We refer to (1) rising housing and rental prices; (2) gentrification; and (3) issues of wealth distribution based on the identity of hosts and discrimination against guests.

a. Rising House and Rental Prices

In many metropolitan cities around the globe, housing prices are surging,¹⁵⁴ leading to significant issues of housing affordability and social unrest with implications on employment rates, demographic distribution, and mobility.¹⁵⁵ What causes the dramatic surge in housing prices and what regulatory interventions are required, if at all, are complex questions.¹⁵⁶ However, the mushrooming extent of short-term rentals, like Airbnb, represents an entirely new use of residential properties for commercial purposes, an advancement that calls for empirical studies to better understand how and when these rentals cause housing affordability problems and how they should be treated.¹⁵⁷

The effect of the sharing economy on the housing and tourist markets and on the urban structure is subject to growing attention,¹⁵⁸ particularly with respect to the appropriate regulatory response.¹⁵⁹ The empirical research on the effect of short-term rentals (STRs) on local housing markets is also growing.¹⁶⁰

Several prior studies concern the price effects of STRs. A pioneering study conducted in Boston relied on a measure of “Airbnb density,” which is created by dividing the number of Airbnb listings by the total number of housing units in a census tract to document how a one-standard deviation increase in Airbnb density leads to a 0.4% increase in local rents. Moreover, Airbnb activity suppresses the supply of units offered for rent, such that a one-standard deviation increase in Airbnb listings relative to total housing units is correlated with a 5.9% decrease in the number of rental units offered

¹⁵⁴ *Global Real Estate Bubble Index 2021*, UBS, https://uploads-ssl.webflow.com/5c80210e6a6f22a3987ac018/62457766adce245454cflfl_UBS%20bubble%20index%202021.pdf [https://perma.cc/8PMT-Y2QJ].

¹⁵⁵ Ganong & Shoag, *supra* note 139; Benjamin Austin, Edward Glaeser & Lawrence H. Summers, *Saving the Heartland: Place-based Policies in 21st Century America*, 8 BROOKINGS PAPERS ON ECON. ACTIVITY 151, 156–57 (2018); Chang-Tai Hsieh & Enrico Moretti, *Housing Constraints and Spatial Misallocation*, 11 AM. ECON. J.: MACROECON. 1, 2–3 (2019).

¹⁵⁶ Edward L. Glaeser, *Real Estate Bubbles and Urban Development*, 34 ASIAN DEV. REV. 114, 114–151 (2017).

¹⁵⁷ See Peter A. Coles, Michael Egesdal, Ingrid Gould Ellen, Xiaodi Li, Arun Sundararajan, *Airbnb Usage Across New York City Neighborhoods: Geographic Patterns and Regulatory Implications*, CAMBRIDGE HANDBOOK ON THE LAW OF THE SHARING ECONOMY (2017).

¹⁵⁸ Zhihua Zhang, Rachel J.C. Chen, Lee D. Han & Lu Yang, *Key Factors Affecting the Price of Airbnb Listings: A Geographically Weighted Approach*, 9 SUSTAINABILITY 1635, 1636 (2017); Nicole Gurrán & Peter Phibbs, *When Tourists Move In: How Should Urban Planners Respond to Airbnb?*, 83 J. AM. PLAN. ASS'N 80, 80–92 (2017); Gábor Dudás, György Vida, Tamás Kovalcsik & Lajos Boros, *A Socio-Economic Analysis of Airbnb in New York City*, 7 REGIONAL STATISTICS 135, 135–151 (2017).

¹⁵⁹ Guido Smorto, *Protecting the Weaker Parties in the Platform Economy*, in THE CAMBRIDGE HANDBOOK OF THE LAW OF THE SHARING ECONOMY 431, 431–32 (Nestor M. Davidson, Michèle Finck & John J. Infranca, 2018); Eric Biber, Sarah E. Light, J.B. Ruhl & James Salzman, *Regulating Business Innovation as Policy Disruption: From the Model T to Airbnb*, 70 VAND. L. REV. 1561, 1561–62 (2017); Michèle Finck & Sofia Ranchordás, *Sharing and the City*, 49 VAND. J. TRANSNAT'L L. 1299, 1299–1300 (2016); Sofia Ranchordás, *Innovation Experimentalism in the Age of the Sharing Economy*, 19 LEWIS & CLARK L. REV. 871, 871 (2015); Sofia Ranchordás, *Does Sharing Mean Caring: Regulating Innovation in the Sharing Economy*, 16 MINN. J.L. SCI. & TECH. 413, 413–14 (2015).

¹⁶⁰ John Infranca, *The Sharing Economy and the Allocation of Urban Space* 3–4 (Suffolk Univ. L. Sch., Research Paper No. 19-10, 2019).

for rent. This study also revealed that while 82% of Airbnb hosts had one listing in the examined period, the remaining 18% had 46% of the properties listed, indicating the deep involvement of for-profit operators. In the study, the rental data was obtained from a commercial service that aggregates listings of housing for rent from the web. Data on actual transactions and on the sales market were not studied. In addition, the studied period was short (one month), and the overtime market adjustment to STRs was not examined.¹⁶¹

Studies on New York City found a huge impact on long-term renters: the net impact of Airbnb aggregated across all renters is a loss of \$2.4 billion, where the losses from the rent channel at \$2.7 billion dominate the gains from the host channel at \$0.3 billion.¹⁶² Significant effect was also found on housing prices—a 1% increase in Airbnb listings is associated with increases of 0.06% to 0.011% in house values.¹⁶³

Another large-scale study examined Airbnb’s impact on American cities.¹⁶⁴ In order to overcome the challenge of controlling for the factors other than Airbnb activity, the study distinguished between “touristy” and “non-touristy” zip codes according to the volume of restaurants and bars in each location. The study found that a 1% increase in Airbnb listings leads to a 0.018% increase in rents and a 0.026% increase in house prices.

Another recent study focused on eight French cities and found differences between the cities examined.¹⁶⁵ In Paris, for example, the researchers found that a 1% increase in Airbnb listings leads to a 0.5242% increase in rents, whereas for professional Airbnb rentals only, the effect is 1.2372% and 1.7083% for new lessees. In that study, the effect increases with higher owner-occupancy-rates and decreases with the density of hotels.

These and other studies advance our understanding of Airbnb’s effect on the housing market, although they suffer from many limitations: (1) they usually lack or have minimal controls on the demand side; (2) the interaction between the housing and the rental markets are usually not studied;¹⁶⁶ (3) the geographical scale in which the studies are undertaken—mostly at the zip code or neighborhood level—might not be sufficient to identify the effect of Airbnb activity over other factors;¹⁶⁷ (4) they do not usually clearly distinguish between “professional” and “non-commercial” listings;¹⁶⁸ (5)

¹⁶¹ Keren Horn & Mark Merante, *Is Home Sharing Driving Up Rents? Evidence from Airbnb in Boston*, 38 J. HOUS. ECON. 14, 18 (2017).

¹⁶² Sophie Calder-Wang, *The Distributional Impact of the Sharing Economy on the Housing Market* (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3908062 [<https://perma.cc/Z454-K79D>].

¹⁶³ Stephen Sheppard & Andrew Udell, *Do Airbnb Properties Affect House Prices*, (2016), <https://web.williams.edu/Economics/wp/SheppardUdellAirbnbAffectHousePrices.pdf> [<https://perma.cc/HM4X-H3EH>].

¹⁶⁴ Kyle Barron, Edward Kung & Davide Proserpio, *When Airbnb Listings in a City Increase, So Do Rent Prices*, HARV. BUS. REV. (Apr. 17, 2019), <https://hbr.org/2019/04/research-when-airbnb-listings-in-a-city-increase-so-do-rent-prices> [<https://perma.cc/M6DK-42X7>].

¹⁶⁵ Kassoum Ayouba, Marie-Laure Breuillé, Camille Grivault & Julie Le Gallo, *Does Airbnb Disrupt the Private Rental Market? An Empirical Analysis for French Cities*, 43 INT’L REGIONAL SCI. REV. 76, 88–89 (2019).

¹⁶⁶ Barron et al., *supra* note 164 (providing data on the effect of Airbnb on both markets, but without offering sufficient discussion).

¹⁶⁷ Ayouba et al., *supra* note 165 (the exception here for the study of the rental market only).

¹⁶⁸ *Id.* (the same exception).

they do not use housing price data from both ads and actual transactions—a strategy that is important to identify the interaction between the two sources.

The regulatory response to sharing-economy activities should depend on the type of actual practices.¹⁶⁹ Accordingly, the study of Airbnb’s effect on the real estate market should focus not only on housing prices. It should also deal with the question: How is the price increase distributed among different social segments? Who benefits and who loses from it?¹⁷⁰ Furthermore, we should ask whether sharing activities induce property owners to reuse their existing stock more efficiently,¹⁷¹ increasing utilization of excess capacity by leveraging the “surplus value” of unused or under-utilized assets” to create “more capacity than the owner can herself use at once and that can thereby be monetized.”¹⁷² Such increased utilization could take place by renovating unused or dilapidated units and by renting out bedrooms when the owners are away or that might otherwise sit idle.¹⁷³

Furthermore, are sharing-economy activities actually about usages that are akin to conventional commercial use—not significantly different from the supply that incumbents provide, where landlords gradually shift to letting their units on sharing platforms, resulting in fewer units remaining available for more permanent residents and rising prices? In other words, is the sharing economy creating a different market of housing units for short-term commercial rent that competes with both the housing market and the commercial accommodation market,¹⁷⁴ or is it about exhaustion of existing goods without altering their basic purpose of meeting local housing demand?

If sharing activities are characterized as increased utilization of existing goods, this would mean that current holders, whether owner-occupiers or renters, enjoy the added revenues. When it comes to renters re-letting their apartments to strangers, normative questions arise regarding the redistribution of wealth between owners and residents. This is especially troubling where rent-controlled tenants rent out their below-market units for short durations at market-level or premium prices, in violation of the law.¹⁷⁵

In line with the concentration thesis explained above, a recent study has shown that when Airbnb adopted a policy that limited the number of properties a host could manage in the city, the prices of apartments for sale and rent fell by about 3%.¹⁷⁶ Similarly, a study on cities in Los Angeles County that impose restrictions on Airbnb showed that the regulations reduced listings by 50% and housing and rent prices by 2%.¹⁷⁷

¹⁶⁹ 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, 931 (2015).

¹⁷⁰ Calder-Wang, *supra* note 162.

¹⁷¹ Liran Einav, Chiara Farronato & Jonathan Levin, *Peer-to-Peer Markets*, 8 ANN. REV. ECON. 615, 615–635 (2016); Orly Lobel, *The Law of the Platform*, 101 MINN. L. REV. 87, 108 (2016).

¹⁷² Donald J. Kochan, *I Share, Therefore It’s Mine*, 51 U. RICH. L. REV. 909, 929 (2016).

¹⁷³ Gregory M. Stein, *Will the Sharing Economy Increase Inequality?*, 85 BROOK. L. REV. 785, 792–93 (2020).

¹⁷⁴ Zervas et al., *supra* note 133; Chiara Farronato & Andrey Fradkin, *The Welfare Effects of Peer Entry in the Accommodation Market: The Case of Airbnb* (Nat’l Bureau of Econ. Rsch., Working Paper No. 24361, 2018).

¹⁷⁵ Stephanie M. Stern, *Rent Control Sharing*, 13 J. L. & ETHICS HUM. RTS. 141, 141 (2019).

¹⁷⁶ Wei Chen, Zaiyan Wei & Karen Xie, *The Battle for Homes: How Does Home Sharing Disrupt Local Residential Markets?*, 68 MGMT. SCI. 8589 (2022).

¹⁷⁷ Hans R. A. Koster, Jos van Ommeren & Nicolas Volkhausen, *Short-Term Rentals and the Housing Market: Quasi-Experimental Evidence from Airbnb in Los Angeles*, 124 J. URB. ECON. 1, 1 (2021).

Finally, it should be noted that the COVID-19 pandemic has affected the tourism industry, and Airbnb activity is no different in this sense.¹⁷⁸ Due to the difficulties in moving between countries and the need for social distance, Airbnb activity has declined naturally.¹⁷⁹ Some saw that as a rare opportunity to moderate its negative impact.¹⁸⁰ Indeed, a study from Sydney shows that rental prices have dropped by up to 7% during the pandemic in Airbnb's more significant areas of activity, in line with the decline in platform activity.¹⁸¹ In the context of the pandemic, we still have to wait for more studies to come about the long-term impact and whether Airbnb activity will moderate. At the more general level, this study is a further proof of the dramatic effect of Airbnb activity levels on rental prices. Based on all the studies discussed above, the relationship between the rise in Airbnb usage and the increase in both housing and rental prices is clear and undeniable.

b. Gentrification

Related but separate from the effect on housing and rent prices is the phenomenon of gentrification; it has been claimed that the rise of Airbnb is accelerating gentrification in tourism cities.¹⁸² Gentrification refers to “the process of neighbourhood change in which capital investment in the housing market results in the displacement of existing populations and the arrival of newcomers with higher socio-economic status.”¹⁸³ Proliferation of short-term rentals “can foster tourism gentrification as a process of land-use change from residential to commercial uses in which transient visitors replace long-term residents.”¹⁸⁴ One of the most popular explanations for tourism-driven gentrification is the short-term rent gap. The potential impacts of Airbnb in terms of gentrification and displacement “go well beyond the impacts that previous forms of touristic housing have had.”¹⁸⁵

The research associating Airbnb with gentrification is still in its infancy, but in recent years there has been growing evidence from cities around the world of displacement and gentrification. One study showed evidence of gentrification in the poorer neighborhoods of Los Angeles.¹⁸⁶ Another study on Amsterdam identified strong ties between Airbnb activity and gentrified

¹⁷⁸ Sara Dolnicar & Samira Zare, *COVID19 and Airbnb – Disrupting the Disruptor*, 83 ANN. OF TOURISM RSCH. 1, 2 (2020).

¹⁷⁹ Stefano Bresciani, Alberto Ferraris, Gabriele Santoro, Katia Premazzi, Roberto Quaglia, Dorra Yahiaoui & Giampaolo Viglia, *The Seven Lives of Airbnb. The Role of Accommodation Types*, 88 ANN. OF TOURISM RSCH. 1, 5 (2021); Emre Guerbuezer, *Airbnb in Copenhagen, Denmark: The Short-Term Rent Gap, Gentrification & the Housing Market* (2021), <http://lup.lub.lu.se/student-papers/record/9049686> [<https://perma.cc/HJ84-93HK>].

¹⁸⁰ Dolnicar & Zare, *supra* note 178.

¹⁸¹ William Thomas Thackway & Christopher James Pettit, *Airbnb During COVID-19 and What This Tells Us About Airbnb's Impact on Rental Prices*, FINDINGS 1, 4 (2021).

¹⁸² Albert Arias-Sans, Alan Quagliari-Domínguez & Antonio Paolo Russo, *Home-sharing as Transnational Moorings*, 26 CITY 160, 163–64 (2022).

¹⁸³ Agustin Cocola-Gant & Antonio Lopez-Gay, *Transnational Gentrification, Tourism and the Formation of 'Foreign Only' Enclaves in Barcelona*, 57 URB. STUD. 3025, 3028 (2020).

¹⁸⁴ Agustin Cocola-Gant & Ana Gago, *Airbnb, Buy-to-let Investment and Tourism-driven Displacement: A Case Study in Lisbon*, 53 ENV'T & PLAN. A: ECON. & SPACE 1671, 1676 (2021).

¹⁸⁵ Ismael Yrigoy, *Rent Gap Reloaded: Airbnb and the Shift from Residential to Touristic Rental Housing in the Palma Old Quarter in Mallorca, Spain*, 56 URB. STUD. 2709, 2711–12 (2019).

¹⁸⁶ Dayne Lee, *How Airbnb Short-Term Rentals Exacerbate Los Angeles's Affordable Housing Crisis: Analysis and Policy Recommendations*, 10 HARV. L. & POLY REV. 229, 229 (2016).

neighborhoods.¹⁸⁷ Another study focused on three main cities in Europe—Athens, Lisbon, and Milan—and found in all cases that “Airbnb is fostering a new form of urban displacement at a faster rate than traditional housing gentrification, with the renting of prime residential areas to tourists.”¹⁸⁸ Similar evidence also comes from the city of Reykjavik, Iceland.¹⁸⁹

Finally, several studies have found that gentrification processes may particularly affect racial-minority populations. Thus, Robertson demonstrates in his research how the working-class Black community is a major victim of gentrification in the city.¹⁹⁰ Similarly, evidence from Chicago points to a significant impact on Hispanic and Black neighborhoods.¹⁹¹ To end, the evidence from Athens also indicates that Airbnb “may be the catalyst for the massive displacement of lower-income social groups and migrants from socially-mixed areas that have provided affordable housing over the last thirty years.”¹⁹²

c. Identity of Hosts and Discrimination Against Guests

So far, we have mainly discussed the externalities of short-term-rentals on the housing market. But beyond that, one must also address who are actually the winners from home-sharing. As mentioned, the founding myth of Airbnb describes peer-to-peer accommodation, one in which the host is an ordinary person, and the guest is hosted in her apartment in order to “live like a local.” This arrangement arguably creates opportunities for more equitable distribution. Recently, more and more evidence is emerging that contradicts this myth.

First, the issue of Airbnb hosts’ identity arises. Apart from the fact that, in many cases, the primary earners of the platform come from a privileged class and less from disadvantaged groups¹⁹³—so it may not be able to reduce class gaps—over the years, Airbnb’s hosting has also become less and less authentic and collaborative.¹⁹⁴ These claims are heard in light of a significant increase in the involvement of institutional investors and real estate companies in the platform, who see STR as a potential for capital investments.¹⁹⁵ According to one study, 78% of Airbnb landlords are

¹⁸⁷ F. H. Tejedor Galindo, *The Effect of Airbnb in the Gentrification Process in Amsterdam* (M.S. thesis, Delft Univ. of Tech., Oct. 2020), <https://repository.tudelft.nl/islandora/object/uuid%3A7087bc2c-bac8-41c7-8ec9-6de3abe8d333> [<https://perma.cc/J9HT-YUYD>].

¹⁸⁸ Alberto Amore, Cecilia de Bernardi & Pavlos Arvanitis, *The Impacts of Airbnb in Athens, Lisbon and Milan: A Rent Gap Theory Perspective*, 25 *CURRENT ISSUES IN TOURISM* 3329, 3329 (2020).

¹⁸⁹ Anne-Cécile Mermet, *Airbnb and Tourism Gentrification: Critical Insights from the Exploratory Analysis of the ‘Airbnb Syndrome’ in Reykjavik*, in *TOURISM AND GENTRIFICATION IN CONTEMPORARY METROPOLISES* 52, 52 (Maria Gravari-Barbas, Sandra Guinand, eds., 2017).

¹⁹⁰ Dustin Robertson, Christopher Oliver & Eric Nost, *Short-term Rentals as Digitally-Mediated Tourism Gentrification: Impacts on Housing in New Orleans*, 24 *TOURISM GEOGRAPHIES* 954, 956 (2020).

¹⁹¹ Diamond Smith, *Renting Diversity: Airbnb as the Modern Form of Housing Discrimination Comments*, 67 *DEPAUL L. REV.* 581, 581–82 (2017).

¹⁹² Dimitris Balampanidis, Thomas Maloutas, Evangelia Papatzani & Dimitris Pettas, *Informal Urban Regeneration as a Way out of the Crisis? Airbnb in Athens and its Effects on Space and Society*, 14 *URB. RSCH. & PRAC.* 223, 238 (2021).

¹⁹³ Quattrone et al., *supra* note 133; David Wang, Stephen Xi & John Gilheany, *The Model Minority? Not on Airbnb.com: A Hedonic Pricing Model to Quantify Racial Bias against Asian Americans*, *TECH. SCI.*, Sept. 1, 2015, at 15; Benjamin G. Edelman & Michael Luca, *Digital Discrimination: The Case of Airbnb.com* (Harv. Bus. Sch., Working Paper No. 14-054, 2014).

¹⁹⁴ Dolnicar and Zare, *supra* note 178.

¹⁹⁵ Arias-Sans et al., *supra* note 182.

individual and corporate investors.¹⁹⁶ This trend was also observed in the United States across all 50 states: 63.5% of Airbnb hosts had two or more listings, generating as much as 69% of Airbnb's revenues.¹⁹⁷ Despite rising claims that the COVID-19 pandemic may moderate this trend,¹⁹⁸ the long-term impact is unclear and should be examined in future research.

Even if disadvantaged groups host less, profit can still be claimed from a consumer's point of view, as lowering prices following Airbnb activity helps increase disposable income and make tourism accessible. On the other hand, in recent years, there have been harsh allegations of racial discrimination against guests,¹⁹⁹ which to some extent weakens the argument of consumer welfare. A study found discrimination occurs among landlords of all sizes, including small landlords sharing the property and larger landlords with multiple properties. Applications from guests with distinctively African American names are 16% less likely to be accepted relative to identical guests with distinctively White names.²⁰⁰

D. THE FINANCE MARKET

The finance market is the third and final market we would like to discuss regarding the sharing economy's effects.²⁰¹ Financial markets play many important economic roles. They enable individuals to achieve a better balance between current and future consumption. For example, entrepreneurs with good investment projects may be in need of financing while individuals wanting to provide for their retirement may be looking for avenues in which to invest their savings. Financial markets bring borrowers into contact with lenders and in the process make both better off. Financial markets also allow efficient risk sharing among investors. Diversifiable risk can be eliminated by holding assets the returns of which are not perfectly correlated.²⁰² Financial markets not only help investors in diversifying some of the risk, but also offer a wide array of financial instruments with very different risk-return relationships. This enables individuals to choose the risk profile of their investments according to their risk-tolerance levels.²⁰³

In recent years, financial technology ("fintech") innovations have transformed a variety of financial activities and reshaped the structure of the

¹⁹⁶ Cocola-Gant and Gago, *supra* note 184, at 1684.

¹⁹⁷ Tarik Dogru, Makarand Mody, Courtney Suess, Nathan Line & Mark Bonn, *Airbnb 2.0: Is it a Sharing Economy Platform or a Lodging Corporation?*, 78 TOURISM MGMT. 1, 8 (2020).

¹⁹⁸ Dolnicar and Zare, *supra* note 178.

¹⁹⁹ Rosenblat et al., *supra* note 127.

²⁰⁰ Benjamin Edelman, Michael Luca & Dan Svirsky, *Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment*, 9 AM. ECON. J.: APPLIED ECON. 1, 1 (2017); see also Allyson E. Gold, *Community Consequences of Airbnb*, 94 WASH. L. REV. 1577, 1598 (2019).

²⁰¹ In contrast to the two markets mentioned above, probably as part of reasons related to the problem of defining and typing the sharing economy, sharing economy fintech platforms and their impact on the financial market are often studied separately and not as part of the broad sharing economy phenomenon.

²⁰² William F. Sharpe, *Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk*, 19 J. FIN. 425, 441 (1964); John Lintner, *The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets*, 47 REV. ECON. & STAT. 13, 23 (1965).

²⁰³ Research suggests that about 25 percent of the variation in risk-tolerance across individuals can be explained by genetic traits. Several demographic and situational factors may explain the remaining variation. For a literature review on the factors explain the variation in risk-tolerance across individuals, see Gary Hochman, Moran Ofir & Shahar Ayal, *Financial Risk-Tolerance During a Major Negative Life Experience: The Case of COVID-19 Pandemic* (working paper), https://www.lawfin.uni-frankfurt.de/fileadmin/user_upload/Ofir_covid_risk_-_11.22.pdf [<https://perma.cc/LLG6-RHTJ>].

financial market. The key features that differentiate today's fintech from early applications of technology to finance include (i) massive processes of digitization and digitalization (for example, financial firms are closing branches at a rapidly growing pace and moving to communicate with their clients through online channels); (ii) increasing use of algorithms with decision-making capacity to displace humans in the provision of financial services (for example, robo-advisors); (iii) increasing use of data, including new data types, to deliver financial services (for example, credit scoring); and (iv) disintermediation—that is, the creation of new business models that allow startups to provide financial services directly to consumers without the involvement of traditional middlemen (for example, marketplace lending).²⁰⁴

One of the most important fintech innovation vehicles are the marketplace lending platforms. Marketplace lending platforms, such as Prosper and Lending Club, match lenders with borrowers without the involvement of traditional credit intermediaries. By cutting out a level of intermediation, they can reduce operational costs and consequently offer attractive interest rates for both borrowers who look for an external source of credit and for lenders who seek to diversify their investment portfolio with a new asset class (Peer-to-Peer (“P2P”) loans).

Those platforms also showcase the potential benefits associated with the increasing use of AI and big data techniques. Utilizing sophisticated algorithms and a wide variety of data sources—such as social media activity and property ownership—to credit scoring, P2P platforms can produce more predictive credit assessments and promote financial inclusion by providing access to credit for potential borrowers with limited credit history. Against those benefits, however, marketplace lending platforms also introduce new concerns in terms of consumer protection, market integrity, and financial stability. In this part of the Article, we describe the ways in which these platforms distort the market mechanism and give rise to discriminatory effects.

1. The Rise of the Sharing Fintech Market

The rise of P2P lending platforms has dramatically affected the financial market.²⁰⁵ This fintech initiative, defined broadly as the use of non-bank online platforms that match borrowers with lenders, is arguably one of the most important innovations in the area of alternative finance. It changes the way lenders and borrowers interact, allowing them to transact directly with each other without the involvement of traditional financial intermediaries. It reconstructs the credit market by driving massive disintermediation, and it reshapes our general understanding of financial systems by introducing novel financial business models.

²⁰⁴ Moran Ofir & Ido Sadeh, *The Rise of FinTech: Promises, Perils, and Challenges*, in LEADING LEGAL DISRUPTION I (D'Agostino Giuseppina, Piovesan Carole, and Gaon Aviv eds., 2021).

²⁰⁵ Moran Ofir and Ido Tzang, *An Empirical View of Peer-to-Peer (P2P) Lending Platforms*, 19 BERKELEY BUS. L.J. 175, 175 (2022).

In 2005, the first P2P lending platform, Zopa, emerged in the UK.²⁰⁶ The global economic crisis that followed shortly afterward accelerated the development of other fintech-based platforms.²⁰⁷ Since then, the P2P market size has been growing globally and is one of the fastest growing financial markets in recent years. In the U.S., the P2P platform market reached \$61.1 billion in overall volume in 2018. The annual growth rate of P2P platforms between 2013-2018 was an impressive 32.5%.²⁰⁸

The largest and most well-known platforms in the U.S. are LendingClub—the world’s largest platform, which controls almost half of the market in the U.S.—and Prosper.²⁰⁹ In the UK, P2P platform market volume reached £6.2 billion in 2017, accounting for an annual growth rate of 35.2% since 2011. Regionally—that is, combining the UK and Europe—the average growth rate between 2013-2018 was 69%. Although the UK has since remained in the leading position, the rest of Europe is catching up.

There are several features and qualities of P2P lending that contribute to the claim that these platforms can create a better distribution of wealth in the financial market and to a more efficient use of financial resources. First and foremost, P2P platforms allow capital loans outside the traditional banking world, directly from person to person only with the mediation of platforms. For lenders, P2P creates convenient opportunities for individuals to gain a better return on their money. More importantly, from the borrowers’ perspective—whether small businesses or individuals—the platforms provide an opportunity for loans at more convenient costs and with greater access, especially to those who have limited access to loans through banks.²¹⁰ In other words, the platforms promote financial inclusion by providing a lending channel to borrowers who have traditionally been deferred by the banks or do not even approach banks knowing that they will be rejected.²¹¹

2. The Actual Performance of P2P Lending Platforms

Recent empirical studies on P2P lending platforms support some of these claims: P2P platforms were associated with an increase in financial inclusion and accessibility among rural communities that lack financial institutions,²¹² people moving from the village to the city,²¹³ and small and medium

²⁰⁶ David Bholat & Ulrich Atz, *Peer-to-Peer Lending and Financial Innovation in the United Kingdom* (Bank of Eng., Working Paper No. 598, 2016), <https://papers.ssrn.com/abstract=2772585> [<https://perma.cc/7Y5W-89Z4>].

²⁰⁷ *Id.*

²⁰⁸ Ofir & Tzang, *supra* note 205.

²⁰⁹ Shahar Ayal, Daphna Bar-Haim & Moran Ofir, *Behavioral Biases in Peer-to-Peer (P2P) Lending*, in *BEHAVIORAL FINANCE: THE COMING OF AGE 367* (Itzhak Venezia, ed., 2019).

²¹⁰ Shabeen A. Basha, Mohammed M. Elgammal & Bana M. Abuzayed, *Online Peer-to-Peer Lending: A Review of the Literature*, 48 *ELEC. COM. RSCH. & APPLICATIONS* 1, 2 (2021); Moran Ofir and Ido Sadeh, *A Revolution in Progress: Regulating P2P Lending Platforms*, 16 *N.Y.U. J.L. & BUS.* 683, 685 (2019).

²¹¹ Ofir & Sadeh, *supra* note 210; Weiqiang Zhong & Tingfeng Jiang, *Can Internet Finance Alleviate the Exclusiveness of Traditional Finance? Evidence from Chinese P2P Lending Markets*, 40 *FIN. RSCH. LETTERS* 1, 1 (2021).

²¹² Jinyu Liu & Hualin Wan, *Is P2P a Game Changer for “Out-of-Towners”?* (Feb. 14, 2022), <https://papers.ssrn.com/abstract=4034147> [<https://perma.cc/4H2H-WY4D>].

²¹³ Pankaj Kumar Maskara, Emre Kuvvet & Gengxuan Chen, *The Role of P2P Platforms in Enhancing Financial Inclusion in the United States: An Analysis of Peer-to-Peer Lending across the Rural–Urban Divide*, 50 *FIN. MGMT.* 747, 747 (2021).

enterprises (“SMEs”).²¹⁴ More recently, the importance of the role of P2P lending platforms has been demonstrated during the COVID-19 pandemic. The P2P lending industry recovered faster than bank lending,²¹⁵ and the volume of P2P lending even surpassed pre-pandemic volume.²¹⁶ These results highlight the importance of the availability of P2P loans and their potential to replace or increase the volume of lending provided by traditional financial institutions during times of crisis and routine.²¹⁷

On the other hand, P2P lending platforms also have negative implications for equality and the efficient distribution of wealth. To fully understand these, one has to take a closer look at the identity of the sharing parties, borrowers and lenders. While P2P lending platforms were originally designed to serve retail lenders only, they increasingly opened to institutional lenders such as banks, hedge funds, and pension funds.²¹⁸ For example, data from Prosper show that between 2013 and 2019 retail investors funded only 8.4% of loans,²¹⁹ and additional evidence show that the presence of institutional investors in P2P consumer lending platforms in the U.S. market rose from 53% in 2015 to 97% in 2017.²²⁰ Since institutional investors are companies or organizations that invest money on behalf of clients or members like hedge funds, mutual funds, and pension funds, they are considered as professional and sophisticated investors. Not only do these professional investors capture an increasing volume of loans, but they do so by using sophisticated algorithmic trading tools, which provide an unfair speed advantage over individual investors who are pushed out or left with “remnants” of less performing loans.

In addition, P2P lending platforms were originally designed to act as online marketplaces that only matched lenders with borrowers but evolved over time into new intermediary roles, “performing essentially all tasks related to loan evaluation.”²²¹ The platforms provide loan screening and loan pricing services, allowing lenders participating in P2P lending platforms to become more passive. Additionally, they operate secondary markets to mitigate the liquidity risk, and auto-investment tools and contingency funds to help lenders manage their credit risk.

²¹⁴ Kaleemullah Abbasi, Ashratul Alam, Noor Ahmed Brohi, Imtiaz Ali Brohi & Shahzad Nasim, *P2P Lending Fintechs and SMEs’ Access to Finance*, 204 ECON. LETTERS 1, 1 (2021).

²¹⁵ Douglas J. Cumming, Andrea Martinez-Salgueiro & Robert S. Reardon, *COVID-19 Bust, Policy Response, and Rebound: Equity Crowdfunding and P2P Versus Banks*, 47 J. TECH. TRANSFER 1825, 1842 (2021).

²¹⁶ Khakan Najaf, Ravichandran K. Subramaniam & Osama F. Atayah, *Understanding the Implications of FinTech Peer-to-Peer (P2P) Lending During the COVID-19 Pandemic*, 12 J. SUSTAINABLE FIN. & INV. 87, 88 (2022).

²¹⁷ *Id.*; Ofir and Tzang, *supra* note 205.

²¹⁸ Tetyana Balyuk & Sergei Davydenko, *Reintermediation in FinTech: Evidence from Online Lending* 14 (Aug. 8, 2019) (unpublished manuscript) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3189236 [<https://perma.cc/NR8G-V5GT>]; Benjamin Käfer, *Peer to Peer Lending: A (Financial Stability) Risk Perspective*, 25 (Philipps-University Marburg, School of Business and Economics, Joint Discussion Paper Series in Economics, No. 22-2016, 2016), <https://www.econstor.eu/bitstream/10419/144687/1/858781697.pdf> [<https://perma.cc/X9S2-CTSH>].

²¹⁹ See Balyuk & Davydenko, *supra* note 218, at 11.

²²⁰ See TANIA ZIEGLER, DANIEL JOHANSON, MICHAEL KING, BRYAN ZHANG, LEYLA MAMMADOYA, FELIPE FERRI, ROSWITHA TRAPPE, KRISHNAMURTHY SURESH, RUI HAO, LUKAS RYLL, & NIKOS YEROLEMOU, REACHING NEW HEIGHTS: THE 3RD AMERICAS ALTERNATIVE FINANCE INDUSTRY REPORT 32 (2018), <https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/reaching-new-heights/#.XKufiZgzY2w> [<https://perma.cc/VEF6-P6MS>].

²²¹ Balyuk & Davydenko, *supra* note 218, at 1.

Last, the replacement of traditional financial institutions by newer players poses new challenges, since both the borrowers and the lenders can be new players in this field who are prone to a variety of behavioral biases and heuristics that can create systemic discrimination against certain marginalized groups. More specifically, two different behavioral phenomena have been found to be influencing individuals using these platforms—familiarity bias as well as stereotypes and discrimination. We review these two core biases studied in the traditional behavioral literature and discuss their implementations in the context of P2P lending.

The study suggests several issues that undermine the Peer-to-Peer-sharing utopic image: (1) involvement of professional investors and algo trading; (2) re-intermediation; (3) stereotypes and discrimination; and (4) familiarity bias. The following sections will elaborate in more details the contribution of each factor towards unfulfilling the “sharing” goal of these platforms.

a. Involvement of Professional Investors and Algo trading

The romantic perception of P2P investments cracked as the identity of lenders was revealed.²²² The entry of professional investors pushed non-professional investors out of the P2P lending platforms and makes it challenging to generate profits from this investment channel. Not only do these big and professional investors capture an increasing volume of loans, but they do so by using algorithmic-trading tools, which provide an unfair speed advantage over ordinary and manual investors.²²³

While the participation of institutional lenders improves platforms’ screening outcomes, the increasing heterogeneity in lenders’ sophistication also creates an adverse selection problem among lenders;²²⁴ because institutional lenders can typically identify and finance good loans before retail investors, institutional lenders’ participation may lower the average quality of loans available for retail lenders.²²⁵

The professionalization of P2P platforms’ lenders has led to the introduction of algorithmic trading to the platforms. The usage of machine learning (“ML”) applications on P2P lending platforms can lead to unintended biases and, as a result, to discrimination. These biases can be hidden in algorithms, which are particularly relevant for lending markets. If ML algorithms produce biased results, then such social biases would be perpetuated in credit lending decisions, thereby limiting the financial resources that would be available to disadvantaged groups. Moreover, it was found that even when an ML model does not use a sensitive attribute (for example, race or gender) as an input, its prediction outcome (for example,

²²² Ofir & Tzang, *supra* note 205.

²²³ Hongchang Wang & Eric Overby, *How Does Algorithmic Trading Influence Investor Participation in Peer-to-Peer Online Lending Markets?*, HAW. INT’L CONF. ON SYS. SCI. 3961, 3961 (2020) <https://scholarspace.manoa.hawaii.edu/items/a7f6b169-1737-4564-b0ab-99de17b8db30> [<https://perma.cc/WSF8-V7HB>]; Nizan Geslevich Packin, *Consumer Finance and AI: The Death of Second Opinions?*, 22 N.Y.U. J. LEGIS. & PUB. POL’Y 319 (2020) (using an empirical study to explore algorithmic-trading tools and comparing consumers’ approach toward those versus manual investors).

²²⁴ Boris Vallée & Yao Zeng, *Marketplace Lending: A New Banking Paradigm?* 32 REV. FIN. STUD. 1939, 1945 (2019)

²²⁵ *Id.* at 1941.

default risk) can still be discriminatory with respect to a sensitive attribute if the input features are correlated with the other sensitive attributes.²²⁶ For example, Bertrand and Weill show that algorithmic trading preserves racial discrimination against Black borrowers, Asians, and Native Americans, due to the system's reliance on Big Data.²²⁷ Furthermore, they show that algorithms also preserve other behavioral biases, such as social-ties bias.²²⁸

b. Re-intermediation

P2P lending platforms were originally designed to act as online marketplaces that only matched lenders with borrowers, thereby disintermediating traditional intermediaries, but this by itself created an added social value. Over time, these platforms evolved into new intermediaries, and began performing essentially all tasks related to loan evaluation.²²⁹

The rationale behind this shift can be explained by the theoretical model presented by Vallée and Zeng. In their model, “sophisticated investors can choose to become informed and perform additional screening at a cost, whereas unsophisticated investors buy all loans on offer as long as the average loan quality is high enough for them to break even.”²³⁰ The model predicts that when platform pre-screening costs are high, at its early days, investors optimally choose to perform less pre-screening tasks and disclose more information to investors. Under these conditions, the model predicts that “sophisticated investors will actively screen loans and pick only high-quality ones, while unsophisticated investors will not participate in the market.”²³¹ However, as the platform develops, “there comes a point at which its loan assessment becomes sufficiently accurate to attract unsophisticated investors, who fully rely on the platform's judgment. The equilibrium then switches to one in which the platform does all the screening”²³² and distributes less information to investors.

This change in the financial intermediary role of P2P lending platforms should be a special focus of financial regulators since it affects the risk allocation between the parties involved in P2P lending transactions. By providing screening, credit assessment, and matching services, platforms can reduce lenders' transaction costs, increase their diversification, and mitigate adverse selection problems faced by lenders (who cannot assess the quality of borrowers ex ante).²³³

²²⁶ Runshan Fu, Yan Huang & Param Vir Singh, *Crowds, Lending, Machine, and Bias*, 32 INFO. SYS. RSCH. 72, 73–74 (2021).

²²⁷ Jérémie Bertrand & Laurent Weill, *Do algorithms discriminate against African Americans in lending?*, 104 ECON. MODELLING 1, 2 (2021).

²²⁸ Yanying Li, Yue Ning, Rong Liu, Ying Wu & Wendy Hui Wang, *Fairness of Classification Using Users' Social Relationships in Online Peer-To-Peer Lending*, in 2020 COMPANION PROC. WEB CONF. 733–742 (2020).

²²⁹ Balyuk & Davydenko, *supra* note 218, at 1.

²³⁰ *Id.* at 2; Vallée & Zeng, *supra* note 224.

²³¹ Balyuk & Davydenko, *supra* note 218, at 3; Vallée & Zeng, *supra* note 224.

²³² Balyuk & Davydenko, *supra* note 218, at 2–3.

²³³ The adverse selection risk is particularly high in the context of P2P lending due to platforms' tendency to finance riskier projects (compared to traditional alternatives). Olena Havrylchuk, *Regulatory Framework for The Loan-Based Crowdfunding Platforms* 14, 23 (OECD, Working Paper No. 1513, 2018), [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2018\)61&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2018)61&docLanguage=En).

In addition to the social effect of the re-intermediation, a growing number of P2P lending platforms operate secondary markets, allowing lenders to liquidate their loans.²³⁴ Prominent examples include UK-based Zopa, which offers an internal secondary market called “Rapid Returns,”²³⁵ and the largest platforms in the U.S., Lending Club and Prosper, which provide lenders the option of selling their loan shares before the maturity date through a third-party secondary market platform called Folio Investing (although Prosper shut it down in 2016).²³⁶

The development of secondary markets for P2P loans improves lender liquidity and is thus essential for the market’s development.²³⁷ At the same time, however, it raises new challenges and concerns. The existing secondary markets are still limited in size and may create false perceptions about liquidity and investors’ ability to exit.²³⁸ In addition, the existence of these markets may raise concerns “about insider trading and market abuse.”²³⁹ These concerns, combined with the essential role of secondary markets in the development of the P2P lending market, require regulators to pay close attention. In general, they should strive to ensure that there exists appropriate mechanisms to prevent and detect market manipulation practices and that the promotion of secondary-market services is not misleading.²⁴⁰

c. Discrimination and Stereotype Biases

Stereotypes are generalizations about specific types of individuals that are shared by groups and serve as energy-saving devices. For instance, surveys have shown that Blacks, Asians, and Hispanics are seen as poorer, lazier, more violence-prone, less intelligent, less patriotic, and less willing to be self-supporting than Whites. These negative beliefs could lead to financial discrimination against members of stereotyped groups.²⁴¹

We suggest that this stereotypical-based financial discrimination, appearing in the context for P2P lending, is not promoting equality, as the sharing economy suggests, and may even widen existing socioeconomic disparities. While in some platforms, borrowers are not permitted to disclose information that reveals race, religion, gender, and other personal attributes, many borrowers do so anyways, using direct or indirect ways. Several studies have found that lenders are biased against different borrower characteristics.²⁴²

²³⁴ See Olena Havrylchuk & Marianne Verdier, *The Financial Intermediation Role of the P2P Lending Platforms*, 60 COMP. ECON. STUD. 115, 122 (2018); FINANCIAL CONDUCT AUTHORITY, LOAN-BASED (‘PEER-TO-PEER’) AND INVESTMENT-BASED CROWDFUNDING PLATFORMS: FEEDBACK ON OUR POST-IMPLEMENTATION REVIEW AND PROPOSED CHANGES TO THE REGULATORY FRAMEWORK 18 (Consultation Paper CP18/20, June 2018).

²³⁵ See *Safeguard and Rapid Return Loans*, ZOPA BLOG (June 24, 2013), <https://blog.zopa.com/2013/06/24/safeguard-and-rapid-return-loans/>.

²³⁶ See Kevin Wack, *Prosper Shuts Down the Secondary Market for Its Loans*, AM. BANKER (Oct. 3, 2016), <https://www.americanbanker.com/news/prosper-shuts-down-the-secondary-market-for-its-loans>.

²³⁷ Nevertheless, the regulatory status of these secondary markets remained unclear in several jurisdictions and they were even forbidden in some countries. See Havrylchuk, *supra* note 233, at 21.

²³⁸ See FINANCIAL CONDUCT AUTHORITY, *supra* note 234, at 32; U.S. DEP’T OF THE TREASURY, OPPORTUNITIES AND CHALLENGES IN ONLINE MARKETPLACE LENDING 35–36 (2016).

²³⁹ See Havrylchuk, *supra* note 233, at 21.

²⁴⁰ *Id.* at 22.

²⁴¹ Ofir & Tzang, *supra* note 205, at 27–28.

²⁴² *Id.* at 28; Ayal et al., *supra* note 209.

The main discrimination found in the literature is in racial contexts. For instance, Black borrowers are less likely to get loans than White borrowers with the same credit risk.²⁴³ More specifically, it was found that race, gender, and age do not influence the chances of getting a loan, although racial discrimination is manifested in the higher interest rates charged to certain borrowers.²⁴⁴ One study found that people who were cued to make lending decisions discriminated against White women and Black men when assessing applicants with similar financial histories.²⁴⁵ A recent study finds that African Americans, as well as Native Americans and Asian borrowers, are discriminated against in P2P lending platforms. The results indicate that these specific groups get higher loan rejection, higher loan spread, and shorter loan maturity.²⁴⁶

Since borrowers are not required to disclose information that reveals race, religion, and gender, the two significant factors in the context of discrimination are the borrower's geographical area and the borrower's name. Areas that include more racial minorities or names that imply a particular racial or gender affiliation encourage this discrimination.²⁴⁷ This finding is supported by additional evidence that borrowers from areas with more Black residents receive higher interest rates.²⁴⁸ Similar results have also been found in India, where religion and caste-based discrimination are evident.²⁴⁹

In addition to the place of residence and the borrower's name to whom the lenders are exposed, the P2P lender is also exposed to the borrower's writing style. Using slang words, abbreviations, and spelling errors were all associated with a higher probability of default. The problem is that poor spelling may be used as a proxy for different demographic characteristics, such as race, or in other cases may represent various disabilities (for example, dyslexia) rather than necessarily indicate relevant behavioral traits.²⁵⁰

Although varying from place to place and not unequivocal, other "traditional" discrimination has also been observed. For example, P2P lenders are biased against young borrowers who are considered riskier and

²⁴³ Enrichetta Ravina, *Love & Loans: The Effect of Beauty and Personal Characteristics in Credit Markets* 1, 2 (Feb. 2019) https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=1107307 [<https://perma.cc/45N2-NYFE>].

²⁴⁴ Enrichetta Ravina, *Beauty, Personal Characteristics, and Trust in Credit Markets* 1, 1 (Dec. 2007) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=972801 [<https://perma.cc/GF4C-6CN8>].

²⁴⁵ S.K. Harkness, *Discrimination in Lending Markets: Status and the Intersections of Gender and Race*, 79(1) SOC. PSYCH. Q. 81, 83–84 (2016).

²⁴⁶ Bertrand & Weill, *supra* note 227.

²⁴⁷ *Id.*

²⁴⁸ Michael S Padhi, *The Effects of Peer-to-Peer (P2P) Lending on Competition, Discrimination, and Financial Stability*, MPRC WORKING PAPERS (2017).

²⁴⁹ Francesco D'Acunto, Pulak Ghosh, Rajiv Jain & ALberto G. Rossi, *How Costly are Cultural Biases? Evidence from FinTech* (2021), <https://papers.ssrn.com/abstract=3736117> [<https://perma.cc/JB3Q-NNCQ>].

²⁵⁰ Michelle Seng Ah Lee & Jatinder Singh, *Spelling Errors and Non-Standard Language in Peer-to-Peer Loan Applications and the Borrower's Probability of Default*, in 17 PROC. CREDIT SCORING & CREDIT CONTROL CONF. 1 (2020); Nizan Geslevich Packin & Yafit Lev-Aretz, *On Social Credit and the Right to Be Unnetworked*, COLUM. BUS. L. REV. 339, 343, 364, 405 (2016) (discussing proxies ranging from slang and word choices such as "wasted", ways to write names, shopping habits, zip codes, online clicks, purchases of certain items, etc).

less likely to repay.²⁵¹ In a different study, it was found that single-women borrowers paid 0.4% less interest than men, indicating a bias in favor of female borrowers.²⁵² In contrast, in PPdai, a Chinese P2P lending platform, female borrowers pay higher interest but are funded more often and default less.²⁵³ Moreover, a recent study on P2P lending platforms in South Korea found clear age discrimination against young borrowers. On the other hand, the study found no gender discrimination.²⁵⁴ Additionally, a recent study on the Chinese P2P lending platform, Renrendai, indicates that female borrowers have to provide lenders with a higher rate of return to obtain a funding success rate comparable to their male peers. In other words, the results are indicating that female borrowers have been treated unfavorably by lenders in the P2P lending market.²⁵⁵

d. Familiarity bias

The familiarity bias in financial and investment contexts occurs when investors' portfolios are biased towards "familiar" assets, such as local firms or companies of which they are customers.²⁵⁶ In addition to that, social ties are connections among people that are used for sharing information, knowledge, feelings, and experiences. Familiarity bias is well connected to social ties—ties to others who are familiar to us.²⁵⁷

When familiarity bias takes place in domestic settings, it is known as the "local bias."²⁵⁸ For instance, investors are inclined to invest in companies located in their hometown due to a disproportionate amount of information they have about these firms.²⁵⁹ In an international financial context, familiarity bias is termed "home bias" and refers to investors' tendency to favor investments in their domestic market.²⁶⁰

All of the types of familiarity bias presented above are a source of concern in the context of P2P lending's idea of equal distribution of wealth and sharing. Since lenders are exposed to borrower's information, lenders may be affected by these biases, thus discriminating against people with fewer social ties, from certain areas, or with certain characteristics. This concern is exacerbated by the fact that, in many cases, lenders come from

²⁵¹ Yuliya Komarova Loureiro & Laura Gonzalez, *Competition Against Common Sense: Insights On Peer-To-Peer Lending as a Tool to Allay Financial Exclusion*, 33 INT'L J. BANK MKTG. 605, 612 (2015).

²⁵² Devin G. Pope & Justin R. Sydnor, *What's in a Picture? Evidence of Discrimination from Prosper.com*, 46 J. HUM. RES. 53 (2011).

²⁵³ Dongyu Chen, Xiaolin Li & Fujun Lai, *Gender Discrimination in Online Peer-To-Peer Credit Lending: Evidence from a Lending Platform in China*, 17 ELEC. COM. RSCH. 53, 78 (2017).

²⁵⁴ Dongwoo Kim, *Sexism and Ageism in a P2P Lending Market: Evidence from Korea*, 7 J. ASIAN FIN., ECON. & BUS. 537, 539 (2020).

²⁵⁵ Xiao Chen, Bihong Huang & Dezhu Ye, *The Gender Gap in Peer-to-Peer Lending: Evidence from the People's Republic of China 27* (Asian Dev. Bank Inst., Working Paper No. 977, 2019).

²⁵⁶ Mark Grinblatt & Matti Keloharju, *How Distance, Language, and Culture Influence Stockholdings and Trades*, 56 J. FIN. 1053, 1054 (2001); Gur Huberman, *Familiarity Breeds Investment*, 14 REV. FIN. STUD. 659, 660 (2001).

²⁵⁷ Ofir & Tzang, *supra* note 205, at 26.

²⁵⁸ Khushbu Agrawal, *A Conceptual Framework of Behavioral Biases in Finance*, 9 IUP J. BEHAV. FIN. 7, 11 (2012).

²⁵⁹ Robert C. Merton, *A Simple Model of Capital Market Equilibrium with Incomplete Information*, 42 J. FIN. 483, 489 (1987); Alexander Shapiro, *The Investor Recognition Hypothesis in a Dynamic General Equilibrium: Theory and Evidence*, 15 REV. FIN. STUD. 97, 97–98 (2002).

²⁶⁰ Agrawal, *supra* note 258.

particular backgrounds (mostly wealthy and highly educated men).²⁶¹ This may lead to a more limited distribution of wealth—among certain privileged groups that are similar and familiar to the capital owners.

In fact, current empirical evidence indicates that familiarity bias exists in P2P lending. Lenders are more likely to fund borrowers who are similar to them in ethnicity, gender, occupation, or place of residence.²⁶² More specifically, research shows that an increase of one-standard deviation in geographic distance is associated with 0.23 fewer bids.²⁶³

Focusing on the aspect of social ties, several empirical projects analyzed the relations between loan outcomes and the online social ties of borrowers in the P2P market. Based on data of all funding requests in the Prosper platform, researchers tracked the correlation of borrowers' success ex-post with data on the borrowers' online "friendships" on the platform. The results show how borrowers with "friends" are more likely to have their loan requests funded and at lower interest rates.²⁶⁴ Since the applicants on P2P lending platforms may lack sufficient financial history for assessment, quite a few P2P lending service providers have been utilizing the applicants' social relationships to improve the risk-prediction accuracy of loan applications. However, utilizing the information of applicants' social relationships may introduce discrimination in prediction.

The geographic structure of the U.S. that consists of different states creates a fertile ground for examining the impact and magnitude of home bias on the P2P market. A comprehensive study testing the effect of home bias on P2P lending was conducted based on data from Prosper platform as well. Since there are fifty states in the U.S., the simple likelihood of same-state borrower and lender is one out of fifty or two percent. However, data suggests that 7% of P2P bids are within the same state. Furthermore, lenders in any specific state contributed a higher percentage of loans to borrowers from their state than to the general community.²⁶⁵ In the same vein, same-state borrowers increase their odds of getting a bid by more than 14.6%.²⁶⁶ In another study the borrower's home state, as indicated in the borrower's information, was repeated in the loan description. Results showed that repeating this "redundant" information was associated with more bids from home-state investors, consistent with a behavioral-familiarity bias explanation.²⁶⁷ Relatedly, a recent study found that lenders put in 105% more money when lending to local borrowers.²⁶⁸

²⁶¹ Yannis Pierrakis, *Peer-to-Peer Lending to Businesses: Investors' Characteristics, Investment Criteria and Motivation*, 20 INT'L J. ENTREPRENEURSHIP & INNOVATION 239, 246 (2019).

²⁶² Jeff Galak, Deborah Small & Andrew T. Stephen, *Microfinance Decision Making: A Field Study of Prosocial Lending*, 48 J. MKTG. RSCH. 130, 131 (2011); Ravina, *supra* note 244.

²⁶³ Gordon Burtch, Anindya Ghose & Sunil Wattal, *Cultural Differences and Geography as Determinants of Online Prosocial Lending*, 38 MIS Q. 773, 774 (2014).

²⁶⁴ Mingfeng Lin, Nagpuranand R. Prabhala & Siva Viswanathan, *Judging Borrowers by the Company they Keep: Friendship Networks and Information Asymmetry in Online Peer-to-Peer Lending*, 59 MGMT. SCIE. 17, 17 (2013).

²⁶⁵ Mingfeng Lin & Siva Viswanathan, *Home Bias in Online Investments: An Empirical Study of an Online Crowdfunding Market*, 62 MGMT. SCI. 1393, 1398 (2016).

²⁶⁶ *Id.*

²⁶⁷ Ayal et al., *supra* note 209, at 378.

²⁶⁸ Jiajun Jiang, Yu-Jane Liu & Ruichang Lu, *Social Heterogeneity and Local Bias in Peer-to-Peer Lending – Evidence from China*, 48 J. COMPAR. ECON. 302, 303 (2020).

The significant effect of familiarity bias and social ties on the P2P market is creating a decrease in the capital flow. A study that examined the flow of capital between countries on the non-profit lending platform Kiva found that “[t]he same factors that determine the level of bilateral trade or aid are also associated with biasing the capital flows in an online crowd financing platform where loan transactions have zero logistic costs.”²⁶⁹ This suggests that while these platforms hold promise to add flatness to the world system of finance, this flatness is embedded in a larger system of stable inequities that limit its effects and influences its development.

III. TOWARDS A THEORY OF STRUCTURAL REGULATORY ARBITRAGE

A. THE SHARING ECONOMY AS MARKET FAILURE

We now turn to identify the common implications of the sharing economy. Let us begin with our main takeaways from the empirical research for each of the sectors explored, and the overarching conclusion that arises regarding the common myth.

For the labor market, we have seen that despite the sharing-economy platforms’ attempts to create an image of a more egalitarian economy in terms of opportunities, conditions, and job well-being, the evidence presents an entirely different picture. The gig economy has, in fact, perpetuated several features from the traditional world of work, such as gender, racial, and age discrimination, among other biases. At the same time, the sharing economy has created a precarious world of work based on problematic algorithmic management and dangerous and unhealthy work characteristics that reward workers poorly in a way that certainly does not contribute to social equality.

Moreover, the sharing economy has created a new problem in the labor market in the form of misclassification of workers, causing them to be left without social benefits, unemployment insurance, and essential employment protections. It is therefore highly doubtful, in our opinion, whether it can be said that the sharing economy does indeed cause distributive justice and reduce gaps in the labor market. The myth cannot hold here.

For the housing market, we observed that contrary to the founding myth of accommodation-sharing companies, and Airbnb in particular, we have raised many doubts about their impact on a more equitable distribution of wealth. We have shown two significant negative externalities—rising housing and rental prices and accelerating gentrification processes—which undoubtedly harms lower socio-economic status people in big cities and intensifies social disparities. Furthermore, even if we ignore external repercussions, it is not clear whether there is equality within the Airbnb

²⁶⁹ Pramesh Singh, Jayaram Uparna, Panagiotis Karampourmiotis, Eموke-Agnes Horvat, Boleslaw Szymanski, Gyorgy Korniss, Jonathan Z. Bakdash & Brian Uzzi, *Peer-to-Peer Lending and Bias in Crowd Decision-Making*, 13 PLOS ONE 1, 14 (2018), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0193007> [<https://perma.cc/H7HP-NC96>].

platform, given the abundant evidence pointing to the inferiority of hosts from disadvantaged backgrounds, capital investors, professionals taking over the market, and racial discrimination of guests.

We attribute these adverse consequences to Airbnb's ability to turn the fundamental failures of the housing market to its benefit. Short-term rentals, through an effective digital and accessible-to-all platform, allow exploitation of the mechanism of two monopolistic powers that characterize the American housing market: governments that control land uses by zoning by-laws, and landowners who, subject to zoning and rent controls, control the price and actual uses of their properties where concentration of landownership allows big landowners to raise markups excessively.

For the financing market, unsurprisingly, like the other markets, the evidence suggests that P2P lending platforms negatively impact the distribution of wealth in the financial market. The platforms do not seem to be able to increase the ability to get loans among disadvantaged groups. Instead, they perpetuate traditional discrimination and behavioral biases and perhaps even intensify them due to the entry of algorithmic trading. In addition, these platforms are being taken advantage of by smart repetitive institutional players, which further their ability to capture to themselves market surpluses.

Overall, we identify three common features seen across the discrete sectors we surveyed.

The first is the *takeover of big or sophisticated stakeholders*. Each of the markets began as an accessible-to-all platform but over time was taken by institutional interest holders. These smart and repetitive players, who know how to utilize the market advantages to their favor, run campaigns to halt regulatory intervention, regardless of the impact this has on others. They are able to strategically enjoy the common-action problem from which the vast majority of platform users (and non-users) suffer. In addition to that, they are able to sustain risks at a large scale.

The second common feature is that the sharing economy allows a fertile ground for *uncontrolled structural discrimination*. It is prone to fall to stereotypes and other types of behavioral biases, and its effects are intensified due to the technological advantages on which all platforms are based. This is profoundly evidenced over all the examined markets.

Lastly, we find the prevalence of *unintended externalities* that affect non-participating parties, such as in the case of Airbnb's effect on the regular housing market, or the growing competition gig workers present to regular workers.

Extensively reviewing the actual impacts of the sharing economy on three of its leading markets—the gig economy, short-term rentals, and fintech lending—we showed that across a variety of markets, non-equalizing outcomes are constantly prevalent. In fact, sharing economies possess great threats to both efficiency and fair distribution. We argue that these widely documented negative implications should be identified as a market failure in which the sharing economy operates.

We argue that the common reason for the multiple manifestations of the sharing economy's disruptive outcomes is the structural manipulation of protective market regulations. When done by individual parties, the practice of taking advantage of a gap between the economics of a deal and its regulatory treatment is usually referred to as regulatory arbitrage. The scale and types of strategic manipulations associated with the sharing economy should be recognized as a market failure of structural regulatory arbitrage. Viewed from a broader historical perspective, it can be argued that market developments depend on ongoing dynamics between existing legal frameworks and market actors, therefore the theory of structural regulatory arbitrage is important for understanding the emergence and change of market structures and industries generally. It should be stressed in this context that weaknesses in regulation are a normative assessment, but lawmakers may be willing, conscious, or apathetic toward them.²⁷⁰

The accumulated evidence amounts to an unequivocal conclusion: the sharing economy incentivizes and rewards smart repetitive actors to exploit the weaknesses of the regulatory system. To remedy this, specific markets' solutions are not enough, although we will offer several such ideas below. We contend that a conceptual regulatory shift must be adopted in order to overcome the sharing-economy market failure. The first step would be to let the myth go.

B. HOW TO REMEDY

There is much discourse and robust literature discussing possible solutions to mitigate the distortions produced by the sharing economy. In this section, we review the solutions that have been proposed to correct the distortions of the sharing economy from a macro view of all markets. Then, we present selected examples of several solutions designed to address each specific market and examine whether they are expected to contribute to reducing the sources of inequality in each sector discussed in this Article.

In general, the current debate regarding appropriate solutions ranges from those who strongly oppose regulation and trust the market power's ability to solve failures to those who argue that the regulator must enforce the regulation dealing with the traditional equivalent sectors of the sharing-economy industry. In the middle, there are varied and innovative approaches that try to spot failures and challenge them specifically while developing a general but distinct regime for the sharing economy or using gradual regulations. In this way, it is possible to establish regulations that provide minimal protection without stifling innovation.²⁷¹

Those who oppose any type of regulation perceive the sharing economy as a source of equalizing qualities, both on the consumer and supplier sides. Hence, no regulation should be imposed to slow down these positive processes.²⁷² Others do recognize the problems of the sharing economy but

²⁷⁰ For a historical analysis of the advertising industry's development vis-à-vis legal frameworks and their weaknesses (often conscious ones), see ANAT ROSENBERG, *THE RISE OF MASS ADVERTISING: LAW, ENCHANTMENT, AND THE CULTURAL BOUNDARIES OF BRITISH MODERNITY* (2022).

²⁷¹ CODAGNONE & MARTENS, *supra* note 99.

²⁷² McGinnis, *supra* note 16.

believe that the solutions should be based primarily on self and voluntary regulation of the platforms and, when appropriate, service providers.²⁷³ Examples of self-regulation are models of peer regulation, self-regulatory organizations, and data-delegated regulation.²⁷⁴ On the other hand, as stated, some believe that market regulations or existing legislation should not be relied upon,²⁷⁵ and there is a necessity for regulation that will apply to the various parties taking part in the sharing economy according to their role—suppliers, intermediaries, platforms, and so forth.²⁷⁶

While public opinion cannot justify any type of regulation by itself, it can serve as a proxy for expected compliance and cooperation. However, a recent study examined American public opinion regarding regulating the sharing-economy industry.²⁷⁷ According to the analysis, most Americans support some local government regulation on the sharing-economy platforms. While more aggressive regulations like setting minimum prices for rides or home-sharing do not get much support, regulations related to suppliers' backgrounds or imposition of tax requirements and local business licensing are widely supported.

Different commentators consider variations in groups of stakeholders while comparing different types of regulation. Thus, according to one view, regulation should primarily protect platform workers, while consumer interests may be well aligned by deregulation.²⁷⁸ But another view supports consumer protection due to the impact of platforms' dynamic pricing on the increase of inequality and, therefore, require government intervention in relation to essential and public goods or services.²⁷⁹

One of the common problems of traditional markets, which is associated with sharing-economy platforms as well, is a tendency towards monopolization (for example, Uber and Airbnb). High *monopoly* prices lead to a deadweight loss of consumer *welfare* because output is lower and prices are higher than a competitive equilibrium. However, these prices raise the question of whether existing competition laws can solve this market failure properly. Commentators argue that existing competition law does not have much to contribute since the main monopolistic source of power is the data collected by the platforms. Instead, a data access regime should be created specifically for sharing-economy companies, thus solving the problem of new companies entering the market.²⁸⁰

Lastly, since the sharing economy challenges the existing regulatory framework, as discussed in this Article, many out-of-the-box solutions are being offered. For example, one proposal is to develop a social license to

²⁷³ DIRECTORATE-GENERAL FOR INTERNAL MARKET, *supra* note 24.

²⁷⁴ SUNDARARAJAN, *supra* note 5.

²⁷⁵ Guido Smorto, *Protecting the Weaker Parties in the Platform Economy*, in THE CAMBRIDGE HANDBOOK OF THE LAW OF THE SHARING ECONOMY 431 (2018).

²⁷⁶ Vanessa Katz, *Regulating the Sharing Economy Cyberlaw*, 30 BERKELEY TECH. L.J. 1067, 1108 (2015).

²⁷⁷ Jennifer M. Connolly, *No Uber, No Tourists? Public Attitudes Toward Municipal Regulation of the Sharing Economy*, 47 LOC. GOV'T STUD. 331 (2021).

²⁷⁸ Koen Frenken, Arnoud van Waes, Peter Pelzer, Magda Smink & Rinie van Est, *Safeguarding Public Interests in the Platform Economy*, 12 POL'Y & INTERNET 400, 417 (2020).

²⁷⁹ Stein, *supra* note 173.

²⁸⁰ Nadine Schawe, *It's all about Data: Time for a Data Access Regime for the Sharing Economy?*, 25 INFO. POLITY 177, 187 (2020).

operate (“SLO”) for sharing-economy platforms, alongside formal regulation, as done in mining and forestry cases. The SLO framework produces community approval to operate, thus enabling the development of monitoring and measurement systems and creating an early warning system for the administration that helps to know when it is necessary to impose regulation and when not.²⁸¹ In the following sub section we elaborate on the different out-of-the-box solutions offered for each one of the three specific sectors primarily examined in this Article.

1. Solutions for the Labor Market

Given the fact that each market faces different issues that increase inequality, most of the academic discourse concentrates on market-focused solutions. A lively legal and legislative debate has arisen around the frameworks of sharing-economy work. Accordingly, the academic discourse presents a wide range and variety of solutions. The proposed solutions mainly deal with one fundamental question: how to solve the problem of misclassification, assuming that correct classification will lead to the resolution of most gig-economy problems.

As noted, perhaps more than any other market, there is vast documentation of attempts to regulate gig work, and in particular, to regulate the issue of categorization stemming from the recognition of its shortcomings. The effort to find a solution began through courts when in a span of two years, three relatively similar lawsuits in California were brought against Uber, Lyft, and Grubhub. Although the courts dismissed the lawsuits, resulting in legal ambiguity, the discussion has raised many issues.²⁸² As explained above, following the exceptional campaign by the gig-economy platforms, California Assembly Bill 5 (AB5) was diluted by Proposition 22. As of today, California’s gig workers do get some limited rights and protections, such as injury and road-accident insurance, subsidies for health services, and protection against discrimination and harassment.²⁸³

Global experience also reveals limited, confused, and diverse responses. In Europe, a few countries have taken legislative measures to address the issue, while a large number have left the issue of categorization in the hands of the courts to determine.²⁸⁴ For example, in the UK, the court ruled that Uber drivers would be deemed employees.²⁸⁵ However, there are also some examples of special government regulation initiatives. In Spain and Italy, the coverage of employment protections has been extended to apply to couriers, and in France, the government established a special legal regime that requires platforms to respect a range of insurance and training obligations for workers.²⁸⁶

²⁸¹ Alex Baumber, Moira Scerri & Stephen Schweinsberg, *A Social Licence for the Sharing Economy*, 146 *TECH. FORECASTING & SOC. CHANGE* 12, 20 (2019).

²⁸² Nadler, *supra* note 58; Brishen Rogers, *Employment Rights in the Platform Economy: Getting Back to Basics*, 10 *HARV. L. & POL’Y REV.* 479, 482 (2016).

²⁸³ Singletary, *supra* note 62.

²⁸⁴ HAUBEN, *supra* note 70.

²⁸⁵ Healy et al., *supra* note 59.

²⁸⁶ Antonio Aloisi, *Platform Work in Europe: Lessons Learned, Legal Developments and Challenges Ahead*, 13 *EUR. LAB. L.J.* 4, 7–8 (2022).

Another solution that does not include the legislature or the judiciary—is the private regulation model documented in Germany. Under this model, status and working conditions are determined through negotiations and agreements between platforms and trade unions.²⁸⁷ However, it should be noted that given the problems of unionization and the lack of trade unions in many gig-economy sectors, it is often difficult to apply this model.

In general, stakeholders relevant to the task of adapting regulation to the era of the gig economy are faced with four major regulatory dilemmas that are at the center of the debate: (1) whether online platforms mediating the supply and demand for gigs should be regulated differently from offline intermediaries performing the same function; (2) whether gig providers mediated by online platforms should be regulated differently from employees; (3) whether paid gigs should be regulated differently from unpaid gigs; and (4) whether providing gigs should be regulated differently from sharing goods.²⁸⁸ The answers can be placed on a scale. On the one side, those who support the current classification of gig workers as self-employed alongside anchoring a limited number of protections and rights. In the middle, with the most support, is the group calls for the creation of a third and new working classification, between self-employed and employee, so that it applies to gig workers and imparts them important protections and workers' rights while maintaining the flexibility gig work provides. On the other side of the scale are those who support expanding the current employee category so that it will apply to platform workers.²⁸⁹

Scholars who support self-employed categorization will usually promote models similar to the Proposition-22 presented above. That is, classification as independent contractors, which confers maximum autonomy and flexibility alongside protections and minimum benefits such as accident insurance.²⁹⁰ Most of their arguments rely on the great value that workers attach to flexibility in gig work,²⁹¹ alongside the fact that many of them work in several jobs simultaneously and therefore the current employment benefits are a costly and unnecessary burden on the employer.²⁹²

The primary academic argument that supports the creation of a third classification claims that the dichotomous worker classification of employee or self-employed is irrelevant in the face of the new gig-work reality.²⁹³ There are several different suggestions for designing an intermediate category in the literature, some more beneficial to the employees and some more limited.²⁹⁴ The most quoted proposal is that of Harris and Krueger,²⁹⁵ who named the proposed intermediate category “independent workers.”

²⁸⁷ Thomas Gegenhuber, Elke Schuessler, Georg Reischauer & Laura Thäter, *Building Collective Institutional Infrastructures for Decent Platform Work: The Development of a Crowdwork Agreement in Germany*, 79 in ORG. FOR SOCIETAL GRAND CHALLENGES 43–68 (2021).

²⁸⁸ Koutsimpogiorgos et al., *supra* note 39, at 527.

²⁸⁹ HAUBEN, *supra* note 70.

²⁹⁰ Singletary, *supra* note 62.

²⁹¹ Katsnelson & Oberholzer-Gee, *supra* note 43.

²⁹² Seth Oranburg & Liya Palagashvili, *Transaction Cost Economics, Labor Law, and the Gig Economy*, 50 J. LEGAL STUD. 219, 233 (2021).

²⁹³ Andrei Hagiu & Julian Wright, *The Status of Workers and Platforms in the Sharing Economy*, 28 J. ECON. & MGMT. STRATEGY 97, 98 (2019).

²⁹⁴ See Zhang, *supra* note 50; Clark, *supra* note 50; Kondo & Singer, *supra* note 51.

²⁹⁵ See Hagiu and Wright, *supra* note 293; Nadler, *supra* note 59; Healy et al., *supra* note 59.

According to Harris and Krueger, “regardless of whether they work through an online or offline intermediary—would qualify for many, although not all, of the benefits and protections that employees receive, including the freedom to organize and collectively bargain, civil rights protections, tax withholding, and employer contributions for payroll taxes.”²⁹⁶

In addition, because it is conceptually impossible to attribute the independent workers’ working hours to any single intermediary, these workers would not qualify for hours-based benefits, including overtime or minimum-wage requirements. Further, because independent workers would rarely, if ever, qualify for unemployment insurance benefits—given the discretion they have to choose whether to work through an intermediary—they would not be covered by the program or be required to contribute taxes to fund that program.²⁹⁷

The basic idea behind the initiation of a third classification is that this classification can solve the inefficiency caused by “wrong classification” to some extent. By classifying gig workers separately and giving them special protection, gig workers can be provided with protection suitable for the characteristics of their work. From the perspective of independent workers, because they lack independent bargaining power like employees, they need security provided by the government and employers.

From the perspective of employers, adding a third classification can be useful as well. Since independent workers can create similar or identical benefits as employees with costs lower than or equal to that of employees, employers tend to lower the motivation of classifying independent workers as independent contractors for the sustainable development and long-term benefits of businesses.²⁹⁸

Lastly, scholars who support the expansion of the employee category criticize the intermediate classification approach. First, practical experience from countries like Spain, Italy, and Canada, which have created an intermediate class, proves that this leads to confusion and under-intermediate classification, or alternatively to an application almost identical to the existing class of employees.²⁹⁹ Second, the problem, some argue, is not with the rigidity of the current employment relationship category, but rather with the desire of gig-economy employers to avoid the associated costs.³⁰⁰ Hence, proposed solutions should change default presumptions so that the default regarding most gig workers will be an employment relationship³⁰¹ and ease some of the fiscal-institutional burdens (such as Social Security contributions).³⁰² Imposing employment obligations will inevitably increase

²⁹⁶ Seth D. Harris & Alan B. Krueger, *A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: The “Independent Worker,”* 2 (2015).

²⁹⁷ *Id.*

²⁹⁸ Haina Lu & Yiheng Chen, *The Protection of the “Third Kind of Workers” in Gig Economy from the Perspective of Social Rights Academic Monograph*, 19 J. HUM. RTS. 76, 79 (2020).

²⁹⁹ Miriam A. Cherry & Antonio Aloisi, *Dependent Contractors in the Gig Economy: A Comparative Approach*, 66 AM. U. L. REV. 635, 640 (2016).

³⁰⁰ Antonio Aloisi & Valerio De Stefano, *Regulation and the Future of Work: The Employment Relationship as an Innovation Facilitator*, 159 INT’L LAB. REV. 47, 49 (2020).

³⁰¹ Cherry & Aloisi, *supra* note 299.

³⁰² Aloisi & De Stefano, *supra* note 300.

prices and reduce platform profits, but it is a fair price to pay for a more egalitarian economy.³⁰³

Overall, it is important to note that there are solutions to the problem of labor-market wealth distribution that are not directly related to the classification of workers. For example, it is argued that regulation of the product market, which is one that protects customers (for example, standards of service provision, permits, and licenses), may indirectly produce effective regulation of the labor market and balance the unequal power in the market, thus improving gig-work conditions. In this context, pressure and demand from customers for proper working conditions are also crucial for improving the conditions.³⁰⁴ Another solution is to strengthen antitrust regulation. According to this argument, the inequality between workers is largely caused by an increase in inequality in profits between companies, which reflects the power of the employer to determine wages. Although the solution to unequal bargaining power is not necessarily an antitrust solution, antitrust must play a key role.³⁰⁵

2. Solutions for the Short-Term Rentals Market

Unlike the case of the labor market, high awareness of Airbnb's impact on housing prices, housing availability, and gentrification has led many cities worldwide to respond with short-term rental policies. Hence, the practical experience is extensive in this field. However, most cities appear to be adopting relatively lenient regulatory policies, particularly in Europe and less so in the U.S., and there are almost no cases in which Airbnb activity has been banned.³⁰⁶ The regulatory policies led by cities are varied, so for example, while regulation in New York and Paris has tightened, regulation in London has loosened.³⁰⁷

In general, policy regimes fall into four categories: (1) host accountability measures, such as zoning laws, licensing requirements, and tax structures; (2) adding restrictions on eligible hosts, length of rentals, and permissible locations; (3) increasing responsibility and enforcement by determining who bears the duty of compliance and who is liable for failure to comply; and (4) creating policies to address discrimination and diffuse the concentration of wealth along racial lines. However, because these policy regimes are fragmented and incomplete, current approaches fail to successfully prevent negative community effects of Airbnb.³⁰⁸

It should be noted that enforcement of short-term rentals ("STRs") regulations is difficult and may encourage illegal STRs activity. In addition,

³⁰³ Rogers, *supra* note 282.

³⁰⁴ Ryan Calo & Alex Rosenblat, *The Taking Economy: Uber, Information, and Power*, 117 COLUM. L. REV. 1623, 1670–71 (2017); Karol Muszyński, Valeria Pulignano & Claudia Marà, *Product Markets and Working Conditions on International and Regional Food Delivery Platforms: A Study in Poland and Italy*, 28 EUR. J. INDUS. RELS. 295, 297 (2022).

³⁰⁵ Marshall Steinbaum, *Antitrust, the Gig Economy, and Labor Market Power Work after the End of Employment*, 82 L. & CONTEMP. PROBS. 45, 46 (2019).

³⁰⁶ Shirley Nieuwland & Rianne van Melik, *Regulating Airbnb: How Cities Deal with Perceived Negative Externalities of Short-Term Rentals*, 23 CURRENT ISSUES IN TOURISM 811, 822 (2020); Arias-Sans et al., *supra* note 182; Koster et al., *supra* note 177.

³⁰⁷ Laura Crommelin, Laurence Troy, Chris Martin & Chris Pettit, *Is Airbnb a Sharing Economy Superstar? Evidence from Five Global Cities*, 36 URB. POL'Y & RSCH. 429, 434–35 (2018).

³⁰⁸ Gold, *supra* note 200, at 1583.

regulations tend to be slow in responding to new types of technology. However, the lack of response in the face of the significant negative externalities of Airbnb's activity is not a possibility.³⁰⁹

Hence, scholars are trying to address the problem by formulating guiding principles for regulators. One suggestion offers four principles for regulation: (1) Until the establishment of well-organized regulatory systems, web-scraping should be used temporarily to garner data on platforms' activity; (2) regulations restricting concentrations of holiday apartments in certain neighborhoods should be installed, and redistribution mechanisms should be considered (so that neighborhoods with few holiday apartments will have their share of profits); (3) general enforcement of regulations requires special staff, which can be funded through a fee for operating a holiday apartment; and (4) a distinction must be made in regulations between real Peer-to-Peer home-sharing and commercial operators.³¹⁰

Another recommendation suggests that without registering and licensing all Airbnb units, no strategy will be effective—that is, a host will be disallowed listing an accommodation without first registering with the local government and obtaining a license number.³¹¹ Other suggested policy principles are varied from protection on affordable housing stock, prevention of “hotelization” of residential neighborhoods, creating avenues for diversity of wealth accumulation, and eliminating opportunities to discriminate on home-sharing platforms.³¹²

Finally, it is worth mentioning the model of private-semi-voluntarily regulation driven by government initiatives. In this model, the government pressures Airbnb to design policies within the platform that will restrict host activity. A notable example is the “One Host, One Home” policy (“OHOH”). In this case, Airbnb, in partnership with local governments, launched a policy restricting hosts to register only one accommodation, thus leading to a decline in housing prices.³¹³ Another example of similar regulation is the “primary residency” policy.³¹⁴ These two policies emphasize the potential of integrated regulation (platform and administration), which may solve the enforcement and technological difficulties.

3. Solutions for the Finance Market

The core objectives of financial regulation are efficiency, fairness, and stability.³¹⁵ With the emergence of P2P lending platforms, financial regulators faced the challenge of resolving the tension between these objectives, while P2P lending platforms, like other innovative technologies

³⁰⁹ Nieuwland & van Melik, *supra* note 306.

³¹⁰ Jake Wegmann & Junfeng Jiao, *Taming Airbnb: Toward Guiding Principles for Local Regulation of Urban Vacation Rentals Based on Empirical Results from Five U.S. Cities*, 69 LAND USE POL'Y 494, 495 (2017).

³¹¹ Gold, *supra* note 200.

³¹² *Id.* at 1630.

³¹³ Chen et al., *supra* note 176.

³¹⁴ Wencui Han, Xunyi Wang, Mehmet Eren Ahsen & Sunil Wattal, *The Societal Impact of Sharing Economy Platform Self-Regulations—An Empirical Investigation*, 33 INFO. SYS. RSCH. 1304 (2021).

³¹⁵ See William Magnuson, *Financial Regulation in the Bitcoin Era*, 23 STAN. J.L. BUS. & FIN. 159, 197 (2018); Douglas W. Arner, Janos Barberis & Ross P. Buckley, *The Evolution of FinTech: A New Post-Crisis Paradigm*, 47 GEO. J. INT'L L. 1271, 1307 (2016).

in the financial industry, grew exponentially.³¹⁶ Regulators faced the challenge of determining how P2P lending platforms should be regulated—that is, how to mitigate the risks faced by borrowers and lenders, as well as the financial stability risks posed by the platforms, without burdening market innovation.

Furthermore, current U.S. and EU regulations are not specifically tailored to the P2P lending market but derive from traditional banking and lending regulations.³¹⁷ Therefore, it is highly doubtful whether these unadjusted regulations can help prevent and correct distortions in the distribution of wealth and the increase of inequality caused by P2P lending, as discussed above.³¹⁸

Despite that, in the U.S., the Securities and Exchange Commission (SEC) intervened in the P2P lending market in its early days by issuing a cease-and-desist order against Prosper in November 24, 2008.³¹⁹ In the order, the SEC determined that “[t]he financial instrument offered by Prosper meets the definition of an investment contract”³²⁰ (an investment of money in a common enterprise with profits to come solely from the efforts of others³²¹), and that Prosper notes are securities.³²² Consequently, since the financial products offered by Prosper were unregistered securities, the SEC concluded Prosper violated Sections 5(a) and 5(c) of the Securities Act of 1933 and ordered Prosper to cease operation.³²³ This order, which required P2P lending platforms to comply with the SEC’s disclosure and registration requirements, led many market participants to either leave the U.S. market or cease operation. For example, Prosper ceased operation on July 13, 2009; Lending Club ceased operation from April 7 to October 13, 2008 to comply with the SEC’s requirements;³²⁴ Zopa withdrew from the U.S. market in 2008 due to “regulatory reasons”;³²⁵ and Loanio, formerly a leading competitor of Prosper and Lending Club, “ceased operation after filing its registration statement in 2009.”³²⁶

In the following years, to address the regulatory uncertainty surrounding P2P lending platforms, the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act³²⁷ called for a government study, which resulted in

³¹⁶ Douglas W. Arner, Janos Barberis & Ross P. Buckley, *The Evolution of FinTech: A New Post-Crisis Paradigm*, 47 *GEO. J. INT’L L.* 1271, 1307–11 (2016).

³¹⁷ Rainer Lenz, *Peer-to-Peer Lending: Opportunities and Risks*, 7 *EUR. J. RISK REGUL.* 688–700 (2016).

³¹⁸ For example, in the US, the Equal Opportunity Act applies to lending market, which makes credit discrimination illegal. However, there is no specific treatment and adjustment for P2P lending; therefore, the law does not provide an adequate solution to problems raised in this article, including discrimination as a result of behavioral biases and discrimination arising from algorithmic trading.

³¹⁹ In the Matter of Prosper Marketplace, Inc., Securities Act Release No. 8984, 94 SEC Docket 1913 (Nov. 24, 2008), <https://www.sec.gov/litigation/admin/2008/33-8984.pdf> [<https://perma.cc/YP6J-QU59>].

³²⁰ For an analysis of P2P notes as securities under the The Securities Act of 1933, § 2(1), see Andrew Verstein, *Misregulation of Person to Person Lending*, 45 *U.C. DAVIS L. REV.* 445, 477–88, 516 (2011); Jack R. Magee, *Peer-to-Peer Lending in the United States: Surviving after Dodd-Frank*, 15 *N.C. BANKING INST.* 139, 154–56 (2011).

³²¹ *SEC v. W. J. Howey Co.*, 328 U.S. 293, 301 (1946).

³²² In the Matter of Prosper Marketplace, Inc., *supra* note 319, at 5.

³²³ See Magee, *supra* note 320, at 153–56.

³²⁴ *Id.* at 153.

³²⁵ Zopian Blogger, *Zopa US*, ZOPA (Oct. 9, 2008), <https://blog.zopa.com/2008/10/09/zopa-us/>.

³²⁶ See Magee, *supra* note 320, at 158–60.

³²⁷ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

a 2011 report published by the Government Accountability Office (“GAO”).³²⁸ GAO’s conclusion suggested a wait-and-see approach, and, consequently, the status quo remained unchanged.³²⁹

Unlike the U.S., wherein the SEC intervened in the early days of the market and required P2P lending platforms to comply with existing securities laws, in the UK, the Financial Conduct Authority (“FCA”) adopted a dialogue-based approach and intervened gradually. Since 2014, the FCA (1) initiated various informal guidelines (statements, discussion, and consultation papers) on P2P lending platforms to inform market participants about potential benefits, risks, and applicable regulations; (2) provided feedback to market participants regarding the regulatory implications of their businesses models; and (3) operated regulatory sandboxes, allowing selected platforms to test their new models on the market.³³⁰

The FCA initiated an authorization regime, requiring every new platform entering the market after April 1, 2014 to receive full authorization and to have a minimum capital of £50,000.³³¹ The minimum capital requirement was designed to ensure that platforms monitor and manage business and financial risks.³³² In addition, the FCA imposed mandatory financial reporting requirements on authorized P2P lending platforms, requiring them to report either quarterly, biannually, or annually depending on the nature and size of their business,³³³ on their financial position, client money holdings, and loans they have arranged.³³⁴ The goal of these reporting requirements is to provide the FCA with information required to identify and monitor risks and trends in P2P lending.

Both the SEC and the FCA protect lenders participating in P2P lending mainly through disclosure requirements aimed at ensuring that lenders have sufficient information to make informed investment decisions. However, mandatory disclosures cannot solve the market failure discussed in this Article. We claim that regulators should pay close attention to the changing scope of the intermediary role of P2P lending platforms, which transforms the risk allocation between the parties involved and to the discrimination caused by behavioral biases and discrimination arising from algorithmic trading.³³⁵

³²⁸ US GOV’T ACCOUNTABILITY OFF., GAO-11-613, PERSON-TO-PERSON LENDING: NEW REGULATORY CHALLENGES COULD EMERGE AS THE INDUSTRY GROWS 41 (2011).

³²⁹ Paul Slattery, *Square Pegs in a Round Hole: SEC Regulation of Online Peer-to-Peer Lending and the CFPB Alternative*, 30 YALE J. REG. 233, 253–254 (2013).

³³⁰ Naoko Nemoto, David Storey & Bihong Huang, *Optimal Regulation of P2P Lending for Small and Medium-Sized Enterprises* 4 (Asian Dev. Bank Inst. Working Paper No. 92, 2019), <https://www.adb.org/sites/default/files/publication/478611/adbi-wp912.pdf> [<https://perma.cc/HW6U-53XN>].

³³¹ *The FCA’s Regulatory Approach to Crowdfunding over the Internet, and the Promotion of Non-Readily Realisable Securities by Other Media: Feedback to CP13/13 and Final Rules*, FIN. CONDUCT AUTHORITY 19 (Mar. 2014).

³³² *Id.* at 6–7.

³³³ *Consumer Credit Reporting*, FCA (May 11, 2015), <https://www.fca.org.uk/firms/regulatory-reporting/consumer-credit-reporting> [<https://perma.cc/MN9N-KN6W>].

³³⁴ *Loan-Based (“Peer-to-Peer”) and Investment-Based Crowdfunding Platforms: Feedback on Our Post-Implementation Review and Proposed Changes to the Regulatory Framework*, FIN. CONDUCT AUTHORITY (June 2018).

³³⁵ Ofir & Sadeh, *supra* note 210, at 689.

IV. CONCLUSION

The sharing economy was celebrated in utopian terms because it really represented the “garage culture” that was so meaningful in the creation of the American technological turn of the past decades. However, due to what we associate as structural market failure, the sharing economy equalizing myth is no longer prevalent.

In this Article, we discussed extensive evidence showing that like many other myths, the sharing-economy equalizing myth also has a historical origin but not much on which to hold. In three of the leading sharing-economy markets—the gig economy, short-term rentals, and fintech lending—non-equalizing outcomes are constantly present. In fact, sharing economies pose great threats to both efficiency and fair distribution.

We identify three common implications of the sharing economy wherever it operates: (1) big or sophisticated stakeholders who take advantage of the regulatory system’s weaknesses; (2) uncontrolled discrimination practices; and (3) negative externalities on the non-sharing, traditional market. We argue that these widely documented negative implications should be identified as market failures in which the sharing economy operates.

This market failure is *structural regulatory arbitrage*: the sharing economy incentivizes and rewards smart repetitive actors to exploit the weaknesses of the regulatory system. To remedy this, specific markets’ solutions are not enough, although we did offer several such ideas. We thus contend that a conceptual regulatory shift must be adopted in order to overcome the sharing-economy market failure.