




Safeguarding Public Interests in the Platform Economy

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This article examines the main public interests at stake with the rise of online platforms in the sharing economy and the gig economy. We do so by analyzing platforms in five sectors in the Netherlands: domestic cleaning (Helpling), taxi rides (UberPop), home restaurants (AirDnD), home sharing (Airbnb), and car sharing (SnappCar). The most salient public interests are a level playing field between platforms and industry incumbents, tax compliance, consumer protection, labor protection, and privacy protection. We develop four policy options (enforce, new regulation, deregulation, and toleration), and discuss the rationales for each option in safeguarding each public interest. We further stress that arguments supporting a particular policy option should take into account the sectoral context. We finally highlight the tension between the subsidiarity principle, which would call for local regulations as platforms mostly concern local transactions and innovation policies that aim to support innovation and a single digital market.

KEY WORDS: Uber, Airbnb, sharing economy, gig economy, regulation

本文验证了因共享经济和零工经济中网络平台的兴起而岌岌可危的主要公共利益。为此作者分析了荷兰的五个行业平台：家庭保洁 (Helpling)、出行乘车 (UberPop)、家庭餐厅 (AirDnD)、家庭共享 (Airbnb)、汽车共享 (SnappCar)。最突出的公共利益是平台和行业在职者之间的公平竞争环境、税收遵从、消费者保护、劳动力保护、以及隐私保护。笔者提出四种政策选择 (强制执行、新的管制、放松管制、容忍)，探讨每种政策选择在保护上述公共利益时的基本原理。笔者进一步强调，那些支持某项特定政策选择的论点应将行业背景考虑在内。笔者最后强调了支持地方管制的辅助性原则 (因为平台主要与地方交易相关)，和创新政策 (旨在支持创新和单一数字市场) 之间的对立关系。

关键词： 优步, 爱彼迎, 共享经济, 零工经济, 监管/规制

Este artículo examina los principales intereses públicos en juego con el auge de las plataformas en línea en la economía del intercambio y la economía del concierto. Lo hacemos analizando plataformas en cinco sectores en los Países Bajos: limpieza doméstica (Helpling), viajes en taxi (UberPop), restaurantes en casa (AirDnD), compartir en casa (Airbnb) y compartir autos (SnappCar). Los intereses públicos más destacados son la igualdad de condiciones entre las plataformas y los incumbentes de la industria, el cumplimiento fiscal, la protección al consumidor, la protección laboral y la protección de la privacidad. Desarrollamos cuatro opciones de política (cumplimiento, nueva regulación, desregulación, tolerancia) y discutimos los fundamentos de cada opción para salvaguardar cada interés

público. También destacamos que los argumentos que apoyan una opción de política particular deben tener en cuenta el contexto sectorial. Finalmente, resaltamos la tensión entre el principio de subsidiariedad que exigiría regulaciones locales, ya que las plataformas se refieren principalmente a transacciones locales y políticas de innovación que apuntan a apoyar la innovación y un mercado digital único.

PALABRAS CLAVE: Uber, Airbnb, economía compartida, economía gig, regulación

Introduction

The sharing economy has grown rapidly over recent years. Increasingly, private individuals are renting out their own goods to each other (peer-to-peer) via online platforms, including houses, cars, parking space, boats, tools, and clothing. Online platforms act as intermediaries linking supply and demand, listing reviews about past transactions and often dealing with the payment and insurance. Notably, home sharing via Airbnb has grown rapidly since its founding in 2008, with over three million listings in sixty-five thousand cities worldwide in December 2017.¹ Peer-to-peer car sharing has also become an increasingly common practice, with the leading European platform Drivy reporting over 1.5 million members in December 2017.²

A similar development is visible with the rise of the gig economy; here defined as self-employed labor working through an online platform. An increasing number of platforms are bringing freelance labor into contact with consumers, whereby the “gig” can vary from a digital service done from one’s laptop, including programming, editing or translation work, to physical services such as cleaning, taxi rides, or babysitting. The percentage of adults having earned monetary income through a sharing/gig platform was already estimated to be over 4 percent in June 2016 in the United States (Farrell & Greig, 2016), while similar numbers have been reported for the Netherlands (TNO, 2016).

With the sudden advent of sharing/gig platforms, and the expectation of a continued expansion in the future (Yaraghi & Ravi, 2016), government authorities have been somewhat taken by surprise. While sharing practices and informal gig work pre-date the rise of online platforms, the matching power and trust mechanisms that platforms have put in place have made such practices much more widespread. Governments are thus faced with a rapidly growing practice among their citizens who ignore state regulations and often do not pay taxes, and are facilitated by platforms in doing so (Acquier, Daudigeos, & Pinkse, 2017; Frenken & Schor, 2017). At the same time, consumers profit from lower prices and a many freelancers value the flexibility that platforms provide them (Fieseler, Bucher, & Hoffmann, 2017; Yaraghi & Ravi, 2016). In the face of this rapid development and complex tradeoffs, many local, national, and transnational governments around the world are reflecting on their respective roles in these platform developments (European Commission, 2016; Hatzopoulos & Roma, 2017; Light, 2018).

A useful starting point for governments in deciding upon its stance toward a particular platform is to explicate the public interests at stake. It is clear that the rise

of sharing and gig platforms affects many different public interests. Platforms not only disrupt the industry in which they operate, in by-passing prevailing regulations (Biber, Light, Ruhl, & Salzman, 2017), but p2p suppliers on platforms may also suffer from low levels of privacy and labor protection and from platform design restrictions (Fieseler et al., 2017). Platforms also undermine the role of government itself to some extent: As online intermediaries, they can escape responsibility for the actions undertaken by the peers who make use of their online services. Hence, new regulations have to be assessed in terms of safeguarding public interest, but also in terms of a government's ability to enforce such regulations.

The study reported here is intended to provide governments with an analysis of the main public interests at stake in the sharing/gig economy, as well as with policy options for safeguarding the public interests under threat and to strengthen the public interests that these platforms contribute to. Given that platforms constitute innovations that generate many possible effects—in turn affecting a multitude of parties in different ways depending on the sectoral context—a classic legal approach has its limits (Ranchordás, 2015). Instead, we take an empirical and inductive approach, examining a broad range of sectors in the Netherlands.³ We analyze five platforms (Helpling, UberPop, AirDnD, Airbnb, and SnappCar), each of which operates in a different sector (domestic cleaning, taxi rides, home restaurants, home sharing, and car sharing, respectively). It will become apparent that the sectoral context matters significantly, in terms of how stakeholders perceive the public interests at play. At the same time, we also find that five public interests tend to re-appear across sectoral contexts, namely, a level playing field between platforms and industry incumbents, tax compliance, consumer protection, labor protection, and information privacy. We finally provide a framework with four generic policy options (enforce, new regulation, deregulation, and toleration) and discuss their pros and cons for each of the five public interests at stake.

The Platform Economy

The arrival of online platforms which citizens use to share files, information, photos, goods, and services, has given rise to a new “platform economy,” which can be broadly described as an economy in which social and economic interactions are mediated online, often by apps (Kenney & Zysman, 2016). The first wave of platforms appeared in the late 1990s, with the creation of websites for second-hand goods, house exchange, and file sharing. In the 2000s, we witnessed a second wave of social media platforms transforming journalism and advertising. The advent of fast-growing platforms like Airbnb in 2008 for home sharing and Uber in 2009 for taxi rides, gave the platform economy an added boost. Following the success of these platforms, all kinds of platforms quickly appeared, ranging from websites where people can share *goods* such as cars, boats, parking spaces, tools, books, and clothing, to websites where you can order online services such as translation or online tutoring as well as personal *services* including babysitters, handymen, taxis, cleaners, etc. The former types of platforms have been referred to as “sharing

economy" defined as consumers who grant each other temporary access to their consumer goods by lending out or renting out their personal belongings (Benkler, 2004; Frenken & Schor, 2017). With the second type of service platforms, people do not share their possessions, but instead rent out their labor referred to as the "gig economy" (De Stefano, 2016; Frenken & Schor, 2017).

Sharing practices pre-date the age of the Internet. People already lent out their possessions, sometimes for a fee. Similarly, people also provided one another with personal services like babysitting and tutoring, again, sometimes for a fee. The emergence of online sharing platforms, however, led to considerable change captured in the term "stranger sharing" (Schor, 2016). While sharing practices in the past were mostly confined to trusted friends, family, and neighbors, people now employ such practices more broadly with strangers, "peer-to-peer" (p2p), via online platforms. This underlines the major function of digital sharing and gig platforms: reducing transaction costs involved in matching, and the establishment of trust between strangers. Platforms are online market places that not only connect supply and demand, but also sites where ratings are given, reviews posted, insurance agreements concluded, and online payments made.

Importantly, a platform only reduces transaction costs substantially once many peers are using it. Building a successful platform from scratch, therefore, is a hard venture. The key challenge for entrepreneurs launching a new platform is to solve the chicken-and-egg-problem inherent to "two-sided marketplaces": p2p providers get attracted to the platform once many p2p consumers are present, while conversely, p2p consumers only get interested in a platform once many p2p suppliers are present. This is why most platforms, at least initially, tend to offer the service for free to one side to build a critical mass, and only charge the other side to gain revenue (Rysman, 2009). Once a critical mass of providers and users are active on a platform, more participants will be drawn to the platform so as to profit from the two-sided network effects. As a result, platform markets often result in one dominant player, also known as a "natural monopoly."

It has further been emphasized that online market places are not "free markets," because the platform often determines prices, and—more importantly—can determine who is allowed to transact in the first place (McKee, 2017). In this sense, the intermediation service provided by the platform can be understood as a club good as their service is non-rival but nevertheless excludable. At the same time, platforms constitute a new institution (Mair & Reischauer, 2017). They act as a self-regulatory body, excluding participants who do not qualify according to the platform operators. Often, a quality assessment is made based on reviews or ratings, and a participant with many low scores may get excluded from the platform. Thus, platforms do not necessarily apply *ex ante* state or professional regulations regarding licenses, quality standards, or diplomas, but rely primarily on participants' mutual assessments in the form of reviews and ratings *ex post*.

Finally, platforms introduce a new information infrastructure as well (Schwarz, 2017). Online platforms have introduced a number of digital innovations that structure economic and social interaction in various new ways. van Dijck, Poell, and de Waal (2018) stress that platforms are not only market places bringing supply

and demand together, but that they also affect people's privacy. They track large groups of people's choices and transactions and save this information as data (aka "datafication"), which is then translated into new services and targeted ads (i.e., "commodification") as well as into algorithms, which prioritize certain topics, persons or offers over others ("selection"), usually for a fee. Platforms thus claim ownership of data generated by the actions of participants, while participants have little insight in how the data are subsequently used within the platform or whether that data are sold on to other platforms and advertisers. In this way, platforms are gaining ever more influence on the content and organization of social traffic as well as on the social status and economic revenue that individuals and organizations can obtain through platforms.

Research Design

Our analysis of platforms suggests that they have a number of features in common: platforms lower transaction costs, tend toward a natural monopoly, facilitate freelance work, self-regulate quality, and collect data in ways that affect people's privacy. However, from the common features of platforms one can't simply jump to the conclusion that the public interests that are affected by platforms can be safeguarded by generic platform regulations per se. Platforms operate in different industry contexts and may generate different societal effects, both positive and negative. Regulatory action must therefore take into account prevailing regulations as well, which differ markedly across sectors. To understand the multitude of public interests at stake as well as the policy options to safeguard such interests, a sectoral approach seems useful. Only then, can one determine to what extent and in which domains the policy concerns raised by the rise of platforms are generic or specific—and therefore whether policy responses should be generic or specific as well.

To this end, we chose five different sectors all within the national context of the Netherlands. The cases concern a domestic cleaning platform (Helpling), a taxi platform (UberPop),⁴ a home restaurant platform (AirDnD),⁵ a home sharing platform (Airbnb), and a car sharing platform (SnappCar). All five platforms act as two-sided market places where peers trade their own goods or services, and all five are market leaders in the Netherlands in their respective sectors. Furthermore, the platforms are all similar in their business model, in charging a fixed percentage as commission on every transaction that takes place through the platform. The business model similarities render the cases more comparable (see Geissinger, Laurell, & Sandström, 2018; Muñoz & Cohen, 2017).

The five cases were chosen because they differ in the extent to which they can be classified along a continuum between pure gig economy and pure sharing economy (see Figure 1). With domestic cleaning services ordered via Helpling, people pay primarily for labor as the service is highly labor-extensive. Similarly, one pays for the labor time of an UberPop chauffeur, but the service is more capital-intensive than cleaning. The driver may use his or her own car while doing so, which could be interpreted as a better utilization of one's own consumer good.

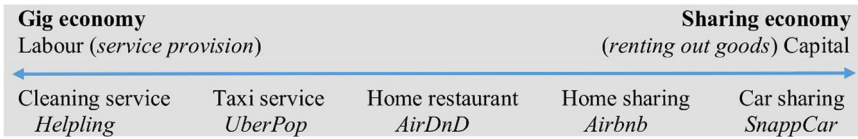


Figure 1. Our Five Cases Placed on a Continuum From Gig Economy to Sharing Economy.

However, in many cases, the car itself is leased for the main purpose of using it as a taxi for the entire week. Home restaurant platform AirDnD constitutes an interesting hybrid case because one's own home is being put to better use by sharing it with guests, but the time spent on cooking is clearly a form of incidental labor. With home sharing with Airbnb, you are mainly paying for the use of the house or apartment although the owner will also have to provide some services such as providing tourist information, tidying up, and cleaning (which, in turn, may be outsourced). Finally, in car sharing, one provides someone access to one's own car with little extra service provision.

Our primary empirical sources for the analysis of each platform are interviews with relevant stakeholders. In each case, except for UberPop, a high-level representative of the platform has been interviewed. Furthermore, we selected representatives of the incumbent (i.e., non-platform) industry actors and of government bodies (Appendix 1). The interviews all followed a semi-structured protocol as given in Appendix 2 and all took place in the first half of 2016. We also attended three public debates, a roundtable and a stakeholder workshop, and participated in two public hearings about the platform economy organized by the Dutch parliament (see Appendix 3). All these meetings were used to get feedback on the case study findings and to triangulate the general conclusions and policy implications. In Frenken, van Waes, Smink, and van Est (2017), one can find in-depth descriptions of each of the platforms. Here, in the next section, we limit the case analysis to the main public interests affected, which provide the basis for a synthesis and policy options in the following two sections.

Case Descriptions

Cleaning: Helping

Helping mediates between private cleaners and private households via its website, with the cleaner being hired by the household. At the time of the analysis, Helping charges a fee of 20 percent of the hourly rate (14.90 euro) for its service. Applicants for work as cleaners via Helping are pre-screened before being admitted to the platform, which includes an intake interview to discuss the individual's motivation, a CV, references and work experience, and a test of the applicant's understanding of what cleaning involves. The prospective cleaner also has to submit a Certificate of Good Conduct (interview Helping). The platform uses a rating system regarding the quality, reliability, and sociability of the cleaner.

The public debate concerning the cleaning platform Helpling concentrates on the social protection and the remuneration of the task provider. The current regulatory framework regarding cleaning in the home, the Home Services Regulation (HSR), was drawn up in January 2007 to protect the legal status of domestic cleaners. Working conditions include a safe and healthy workplace, minimum wage, and 8 percent holiday pay, paid annual leave and sick leave (for a maximum of 6 weeks). Cleaners are responsible for their own tax declaration. The HSR is not effective in practice, however, partly because private clients are not familiar with it. Instead, the large majority of Dutch household who rent cleaners, do so offline in the informal market and without any contract.⁶ Helpling applies the HSR as guideline (such as minimum wage including holiday pay) and also sends cleaners an annual statement of income which they can use to file their tax returns. An unknown share of cleaners may not pay tax, knowing that Helpling will not disclose their personal details and income to the tax authorities. This links to the public interest of fair competition. One can argue that Helpling is competing unfairly with regular cleaning companies, because few cleaners on their platform pay taxes and often have no social security (interview OSB).

Interestingly, in the public debate about Helpling there is little focus on the question of whether Helpling is not in fact an employer or a temp agency. The platform makes use of clients' reviews and in this way indirectly conducts continual quality checks on cleaners. Repeatedly poor performance reviews result in a talk and, ultimately, a cleaner may be denied access to the platform. Helpling also sets the hourly rate for a cleaning task. All this leads to a dependency relationship between platform and cleaner, with many cleaners acquiring a large proportion of their income through Helpling. To avoid being considered as an employer, Helpling performs no quality checks and deliberately does not give cleaners any instructions. Cleaners are also free to choose where and when they offer their services. More recently, Helpling changed its pricing policy, allowing cleaners to set their own price.

Taxi: UberPop

The UberPop app, provided by the Uber company, allows car owners to provide taxi rides with their own private car without a license. Six months after its introduction in July 2014, UberPop activity was declared illegal by a judge, given that Dutch taxi law requires chauffeurs to have a blue taxi license plate and an on-board computer that automatically registers the date of each journey, the working hours, the driving times and the rest periods. The CEO of the Uber company called for the "outdated" taxilaw to be changed. Yet, after an extensive political process, the Taxi Law remained intact and UberPop decided to cease its activities in the Netherlands. Instead, as in many other European countries today, Uber provides a service employing licensed drivers only, which continues to be active up until the present time.

In the debate about UberPop, the dominant public interest was guaranteeing a level playing field (interview Ministry of Infrastructure and The Environment).

Both the incumbent taxi providers and the Inspectorate indicated right from the moment that UberPop first started, that the service was illegal and undesirable due to the unfair competition between traditional licensed drivers and these amateur drivers who do not have to invest in a diploma, a license or an on-board computer. A related public interest central to the debate was consumer protection, as is evident from the taxi law evaluation in May 2015, which stated that the licensing system had to be enforced to guarantee passenger safety. Uber defended its service by stressing that the Dutch license system was outdated, as the rating systems provided by the app guaranteed the safety and quality of the taxi service. This argument has been considered legitimate by some parts of the government as well (interview Ministry of Economic Affairs), but did not convince the ministry in charge (interview Ministry of Infrastructure and the Environment).

Home Restaurant: AirDnD

AirDnD (now called ShareDnD) is a platform founded in 2015 that enables people to advertise their home as a restaurant connecting guests with “hobby chefs.” For now, it only operates in The Netherlands. The platform handles the booking and the payment and lists reviews by guests. According to AirDnD, home restaurants do not compete with existing restaurants because eating in a stranger's living room is an entirely novel experience (interview AirDnD). AirDnD argues that it is more like having dinner with friends in one of their homes and accordingly speaks of “hobby chefs.”

The key question arising in the public debate around AirDnD has been whether existing regulations regarding food safety, responsible alcohol consumption, public order (especially nuisance), and taxes also apply to home restaurants. As far as the Dutch trade association for the hotel and catering industry is concerned, home restaurants are businesses like any other restaurant (interview KHN), because home restaurants receive payment for the meals and drinks they offer, which means they would be subject to current regulations. Furthermore, some charge quite high prices for their dinners, suggesting that some hobby chefs actually make some profit. The platform, however, frames home restaurants as a hobby of residents and self-regulates the hobby-like character of living room restaurants by excluding chefs from the platform who offer their services more than once a week, or who achieve an annual turnover of more than 7,000 euros.

Until 2018, municipalities have refrained from enforcement or regulation. Instead, the Ministry of Economic Affairs organized a multi-stakeholder consultation (Appendix 3). During the workshop the founders of AirDnD engaged in a discussion with stakeholders including the Tax Administration, KHN, and the Food Safety authority, concerning a range of public interests. It became apparent that AirDnD was reluctant to share user data with government agencies should they wish to enforce AirDnD's own proposition for one-day-a-week rule. However, without data, a municipality cannot properly monitor and enforce compliance with the rules. A suggestion that was made during the consultation meeting was that AirDnD could take responsibility for safeguarding public interests, for example, by

providing smoke alarms to hobby chefs and informing users about rules of hygiene. The latter would entail a form of self-regulation that could, if effective, make the monitoring by the Food Authority less needed.

Home Sharing: Airbnb

Airbnb is probably the best-known sharing economy platform worldwide. Through this platform, people can let a room or house to tourists. In the Netherlands, it is especially popular with Amsterdam's residents. Hosts can earn on average over 171 euros a night according to a municipality report.⁷ In this city, more than eighteen thousand properties were listed to let in 2015 (Municipality of Amsterdam, 2016a, p. 48).

Various public interests are affected by residents renting out their homes to tourists via Airbnb. First, the Dutch trade association for the hotel and catering industry argues that home sharing violates the level playing field for tourist accommodation in relation to hotels, because individuals rent out their houses without having to comply with all the food, health and safety regulations and may avoid paying tax on their income (interview KHN). A second interest is the impact of home sharing on neighbors, who suffer from noise and feelings of unsafety caused by temporary residents who are unaware of (written or unwritten) rules of conduct, or who fail to observe them.

To balance the private interests of hosts and guests versus the public interests of neighbors and the neighborhood, the municipality of Amsterdam signed a Memorandum of Understanding with Airbnb in December 2014. It was decided that a property may not be rented out to tourists for more than 60 days a year, and not to more than four guests at one time. The "60-day rule" draws a line between rental by individual homeowners letting their accommodation on an incidental basis and professional providers letting their accommodation permanently. There is some consensus on the city of Amsterdam's rule to put a particular cap the number of days that residents can rent out their home (which many cities in the world have emulated, including London and Paris). Yet, Airbnb remains contested among large parts of the city's population as the municipality is struggling to enforce the 60-day rule. Aggregated data supplied by Airbnb to the municipality of Amsterdam showed that more than 19 percent of the properties were rented out for longer than 60 days in 2015 (Municipality of Amsterdam, 2016a, p. 49). Despite this apparent misuse, Airbnb (like other home sharing platforms) has not passed on to the municipality the disaggregated data on the specific addresses that are rented longer than 60 days in order to protect landlords' privacy (interview Airbnb). Instead, Airbnb agreed to remove ads placed by landlords who had surpassed the 60-day rental so as to assist the municipality in enforcing its cap from 2018 onwards. In July 2018, however, the alderman in charge of Airbnb officially announced a reduction in the maximum from 60 to 30 days from 2019 onwards. Whether Airbnb will still be willing to enforce this stricter regulation by removing ads from their website, remains to be seen.

Car Sharing: SnappCar

The Dutch company SnappCar, founded in 2011, is currently the market leader in the Netherlands in peer-to-peer car-sharing, and the second largest car-sharing platform in Europe. On their platforms, car owners decide themselves what days their car is on offer on the platform and for what price. Next to peer-to-peer car sharing, there exists business-to-consumer (b2c) car sharing where people can rent a locally available car owned by a car sharing organization. The market leader in b2c car sharing in the Netherlands is Greenwheels.

In the case of p2p car sharing, the earnings realized by the car owner do not need to be declared to the tax authority (unless it exceeds 5000 euro a year), because the tax office considers the earnings from car sharing to be a reimbursement of expenses. It is explicitly not the intention that people will operate a business via the SnappCar platform (interview SnappCar). Once a car owner starts renting out the car very often acting as a commercial provider, SnappCar bars such providers from the platform. To monitor such activity, they look for different cars being rented out under the same name, the frequency with which a car is rented out, and the sums of money involved. However, having no access to the data, government authorities cannot verify the claim that this is actually being done by the platform.

Peer-to-peer car sharing enjoys wide legitimacy due to the positive environmental effects of car sharing more generally. Currently, privately owned cars are greatly under-utilized as such cars stand idle 95 percent of their lifetime (Yaraghi & Ravi, 2016). Higher utilization of cars may generate positive environmental effects if fewer cars are needed and people without their own car change their travel habits (Chen & Kockelman, 2016; Nijland & Van Meerkerk, 2017). It should however be noted that the environmental gains are higher for b2c than for p2p car sharing, as some may buy a car knowing they can rent it out and because b2c platforms use smaller and cleaner vehicles compared to cars rented out p2p. For this reason, SnappCar's main b2c competitor Greenwheels feels that SnappCar overstate their environmental effect (interview Greenwheels).

The Public Interests at Stake

All stakeholders, including the representatives of the incumbent business (interviews KNV, KHN, and OSB), consider the platforms as innovative and recognize their potential benefits in terms of a more personalized and flexible service, and often, at lower prices (Fieseler et al., 2017; Yaraghi & Ravi, 2016). As a consequence of lower transaction costs, consumer surplus is rising (Benkler, 2004). Consumer welfare is thus rising with the advent of platforms, as peers entering into a transaction will only do so if it is beneficial to both parties.

There are a number of additional arguments in favor of platforms brought forward by platforms and supported by the Dutch Ministry of Economic Affairs (2015). Platforms provide low entry barriers for freelancers who can gain work experience as a cleaner, driver or home restaurant holder. This form of "micro-entrepreneurship" may be a stepping stone towards a regular job in the same or

related sector, with the consumer reviews providing external evidence of one's skills (interviews Helping, AirDnD, and Airbnb). What is more, some platforms claim positive effects on social cohesion as many strangers now meet face-to-face and may develop meaningful relationships following these encounters (interviews AirDnD, Airbnb, and SnappCar). Finally, in one sector (car sharing), the environmental benefits, as a positive externality, have been estimated to be substantial (Nijland & Van Meerkerk, 2017).

However, despite the benefits that platforms may bring to consumers and society more broadly, the debate surrounding sharing and gig platforms in the Netherlands is increasingly dominated by the concern that public interests are under threat. Here, we limit our analysis to the five salient public interests that emerged from our case studies, namely: (i) level playing field; (ii) tax compliance; (iii) consumer protection; (iv) labor protection; and (v) privacy protection.⁸

First, a common problem with online sharing and gig platforms is that they can cause unfair competition to arise between p2p suppliers who sell goods or services via platforms and professional companies operating in the same market. Platforms enable private individuals to enter existing markets where often only license holders are allowed to operate and tax has to be paid. With the advent of platforms, these markets suddenly face much more competition from amateur providers than in the past—particularly given amateurs generally do not comply with all regulations and taxes. Indeed, this has been the main concern expressed by representative bodies of the taxi sector (interview KNV), the hotel/restaurant sector (interview KHN), and the cleaning sector (interview OSB).

Second, tax compliance is an issue. There is a suspicion that many drivers for UberPop and many cleaners with Helping do not pay income tax and that many people who rent out their homes via Airbnb do not pay tax on their earnings either (minus expenses) on top of the tourist tax. An internal memo of the national Tax Administration indicates awareness of this issue within the agency.⁹ The difficulty of levying tax on income derived from sharing/gig practices is not helped by the government's inability to access data of online transactions, which are shielded by the platforms in the interests of the suppliers' privacy. And, with some platform operating from abroad, the Dutch government is also unable to tax the platforms' revenues from commissions. The lack of tax compliance by those providing the service as well as by the platforms themselves is not only a concern for government, but also further disrupts the level playing field between platforms and regular incumbent businesses. Some platforms have undertaken action, however, and support the government in collecting taxes from p2p suppliers. Airbnb, for example, collects tourist tax automatically via the reservation system, while Helping informs cleaners of their annual income to make it easier for them to file a tax return.

Third, consumer protection is another public interest that has been debated in each of the five cases, and has been raised in our interviews with representative bodies of the taxi sector (interview KNV) and the hotel/restaurant sector (interview KHN). For example, hotels are bound by fire safety regulations, and bars and restaurants by food safety regulations and those around responsible alcohol

consumption. The cars operated by taxi and car rental companies must also always have a roadworthiness certificate. Although such guarantees also apply for private individuals who let their home, provide a dinner or a taxi ride or rent out a car, there is practically no supervision of their compliance with the rules. There are also additional rules that companies have to observe, such as delivery deadlines and complaints schemes. In the context of consumer protection, all platforms we interviewed point to their rating or review system that allows consumers to express their opinion about the quality of a service. In this way, low quality is filtered out as providers with low reputation will get fewer clients. In some circumstances, platforms also resort to removing providers who, in their view, fail to meet the necessary quality standards.

Fourth, labor protection is an important topic in public debate as well as a concern for the national government (interview, Ministry of Social Affairs and Employment). In particular, p2p suppliers on gig platforms suffer from ineffective protection of their labor rights. In our case studies, this is an issue with platforms like UberPop and Helping, where suppliers formally operate as freelancers and determine their own working hours, but are not free to negotiate price and conditions. In a more fundamental sense, one can argue that suppliers are in a position of subordination vis-à-vis the platform, because the latter has the power to deny suppliers access to the platform on the basis of reviews or complaints or for other unspecified reasons. Current labor law in the Netherlands, however, remains rather ambiguous as to whether the characteristics of the supplier–platform relation are in themselves sufficient to classify the supplier as an employee and the platform as an employer.¹⁰

Fifth, all platforms have effects on the privacy of platform participants. In general, platforms are very reluctant to share data with governments in order to protect the privacy of their participants. Platforms tend to provide personal information only if and to the extent they are required to do so by law. Some platforms (Airbnb, UberPop, and SnappCar) nevertheless indicate in their privacy policies that the platform may use personal data for advertising purposes, including data exchange with a third party, such as search engines and social media platforms. In this way, personal information can escape the platform and be used by other (unknown) parties—possibly combined with other personal data—allowing platforms to preselect offers and personalize marketing, further restricting the autonomy of consumers (van Dijck et al., 2018; Martens, 2016). What is more, the economic value of information generated by peers is captured, controlled and exploited by the platforms as they currently claim ownership over such data. However, the question of whether peers generating the data should also own these data is an open one (Kenney & Zysman, 2017; Martens, 2016).

A Policy Framework

The empirical analysis of the five cases makes clear that various public interests can be at stake with the advent of a platform-based business model in traditional industries like the transport, hotel, and cleaning sectors. It is evident that the impact

on each sector differs considerably, in both negative and positive ways. A logical starting point for the government is therefore a case-by-case approach.

At the same time, local, national, and supra-national governments are likely to benefit from a general framework on how they can respond to the further growth of platforms and how to deal with the more recent entry of new platforms in other sectors such as home delivery, health care, education, legal services, and the like. In this context, Codagnone, Biagi, and Abadie (2016) has suggested four possible responses, namely, enforcement of current regulations, designing new regulations, deregulation, or tolerate. These four policy options will be discussed and mapped onto the five aforementioned public interests in order to understand the different ways in which each public interest can be safeguarded. We also summarize the findings in Table 1, where we also indicate possible tensions and complementarities between the different public interests.

Enforcement

Platform-based initiatives can be legitimately banned, if they violate current regulations that aim to safeguard important public interests. The only service that has been prohibited so far is UberPop. Given the direct competition between the UberPop taxi drivers with no license and the regular taxi drivers with a license, the Secretary of State Wilma Mansveld—in accordance with an earlier Dutch Court ruling—argued that the current law should be upheld and the UberPop drivers prosecuted (interview, Ministry of Infrastructure and the Environment). While UberPop drivers provide a service that can be considered a direct substitute for regular taxi services, the question of substitutability is not always so clear-cut. For example, it can be argued that home sharing provides quite a different experience than a regular hotel night (interview, Airbnb) and that, equally, home restaurants provide only a partial substitute for dinner in a regular restaurant (interview, AirDnD).

Enforcement may also hamper the operations of cleaning platform Helpling, but for a different reason. Currently, Helpling mediates between freelance cleaners as service providers and private households as users. However, according to Dutch labor law, the platform can be considered as a temp agency as the client exercises hierarchical power over the cleaner. By the same token, Helpling may also be considered an employer itself, as it uses reviews to monitor the activities of its freelancers (the same reasoning could apply to Uber's platforms). If the government decided to follow current labor law, it could force the platform to shut down their activities in its current form.

Enforcement of the rules has the advantage of providing clarity and creating a level playing field. What is more, the existing regulations carry at least some legitimacy from the past. In this context, apart from prosecution, the government could also make an effort to inform stakeholders better and in simpler terms about the precise rules governing platforms. Currently, platform participants, and even some platforms, don't always appear to be aware of the relevant regulations (interviews, AirDnD and SnappCar). However, enforcement also carries downsides.

Table 1. Policy Options Regarding Safeguarding of Public Interests in the Sharing and Gig Economy

	Enforce	Regulate	Deregulate	Tolerate
<i>1. Level playing field</i>				
Description	Prosecute p2p activity	Introduce a cap on p2p activity	Legalize by deleting regulations inconsistent with p2p activity	Tolerate p2p activity
Rationale	If p2p activity is a close substitute of incumbent business activity; existing regulations are effective in protecting public interests	If platform's self-regulation is effective in protecting public interests	If platform's self-regulation is effective in protecting public interests	Too costly to enforce
Interdependencies	Costly to enforce	Demarcation problems may arise; costly to enforce	Tension with 2-5	Tension with 2-4
<i>2. Tax compliance</i>				
Description	Collect tax	Simplify tax	Cancel tax	Accept tax losses
Rationale	Tax compliance needs to be enforced	Increase compliance by simplifying tax	Introduce tax free regime for p2p activity	Too costly to enforce
Interdependencies	Complement of 1		Tension with 1	Tension with 1
Remarks	Automated tax collection via platforms promotes tax compliance; prices may go up		May increase inequality	May increase inequality
<i>3. Consumer protection</i>				
Description	Enforce existing regulations	Define specific regulations for p2p activity	Cancel regulations	Accept that consumers are ill-protected
Rationale	Consumer protection is a key public interest	Provide consumer with a choice between professional and p2p provision	Existing regulations are costly for p2p suppliers to adhere to, while review and rating systems may still protect consumers	Review and ratings systems still protect consumers
Interdependencies	Complement of 1		Complement of 1	
Remarks	Costly to enforce; prices may go up	Demarcation problems may arise; costly to enforce	Labor income may go down	Labor income may go down

(Continued)

Table 1. (Continued)

	Enforce	Regulate	Deregulate	Tolerate
4. <i>Labor protection</i> Description	Enforce existing regulations and classify platform as employee in case of subordination Labor protection is a key public interest	Introduce “third category” of worker Current categories of self-employed and employee do not fit with hybrid nature of platform work	Broaden definition of self-employed Codification of existing practice	Accept that labor is ill-protected Promotes business model innovation; in some sectors, a substantial share of gig workers have a regular job on the side; in other sectors, most gigs are done by students who may value flexibility more and social security less than others
Interdependencies Remarks	Complement of 1 Prices may go up	Demarcation problems may arise	Rely on voluntary collective insurance arrangements; labor income may go down	Rely on voluntary collective insurance arrangements; labor income may go down
5. <i>Privacy protection</i> Description	Enforce existing regulations Privacy protection is a key public interest	Update privacy regulation in the light of the rise of platforms Individuals should have more rights to manage their personal information Extend GDPR	Broaden rights for governments to collect and combine personal data for enforcement purposes Promotes tax compliance and facilitates enforcement of regulation Complement of 1–4 Data can also be made available for independent research	Accept ill-protected peers Current regime promotes business model innovation Tension with 1–4
Interdependencies Remarks				

GDPR, General Data Protection Regulation; p2p, peer-to-peer.

First, once a platform shuts down, society can no longer enjoy the benefits including lower prices, environment benefits, convenience, flexibility, and opportunities for work and income. Second, an activity that has been banned might be so popular that it continues underground, for example, in the form of anonymous p2p suppliers or a fully offline service. Hence, even if there is a political consensus about the importance of safeguarding public interests by enforcing existing regulations, it remains to be seen to what extent government is able to enforce these regulations in practice.

New Regulations

The government can also choose to revamp the current rules in light of platform innovations. Often, this entails that the rules are adapted to allow the new practice the platforms have enabled, but within certain limits. One obvious regulation is to restrict peer-to-peer activity on platforms (European Commission, 2016; Petropoulos, 2017), for example, by capping the number of days per month or year that p2p suppliers can be active or the amount people can earn tax free. Additionally, it can be further specified for the peer-to-peer regime which regulations apply in terms of consumer and labor protection. The most significant example is Amsterdam's rules regarding home sharing: As long as someone rents out their house fewer than 30 days a year and to no more than four people at one time, the host will not be considered a professional service provider. In other cases, the platforms themselves have already started to monitor "excessive users"—and sometimes even remove them—as to maintain the non-professional nature of the platform (interview AirDnD, interview SnappCar). Their self-regulatory practice suggests that they would not oppose an official cap, as long as it is not too restrictive (interview AirDnD).

Note that a cap on peer-to-peer activity does not create a level playing field between professional and occasional providers. There is still competition between different regimes, but the lines are drawn more clearly. Thus, regulations create clarity about the exact inequalities allowed on the playing field, so that professional providers can respond better to the new reality. With a cap the rules for professional suppliers are maintained, while often being relaxed for p2p suppliers. The de facto effect is that consumers have a choice in the degree of institutional protection they prefer. A professional supplier might often be more expensive than a p2p supplier, but will at the same time offer a higher degree of professionalism and is subject to formalized consumer protection.

Notwithstanding the possible advantages of two separate regimes, a major challenge of new regulations is enforcement. Platforms could help to enforce rules that impose a cap on participation in them, given that platforms register any activity employed on them. Upon request by the Amsterdam municipality, Airbnb took up this role from 2018 onwards by temporarily removing hosts who exceeded the 60-day limit during the calendar year until the beginning of next year. Although a platform could be very effective in this executive role, it is questionable whether government can always rely on platforms, particularly if those enforcement

activities run contrary to the platform's own commercial interests. After all, the stricter the enforcement of the rules prescribing a ceiling on participation in a platform, the lower the platform's turnover (and profits) will be. Furthermore, a platform that enforces rules strictly may benefit competing platforms that apply the rules less strictly. The government would therefore have to monitor whether platforms are performing their role as executive bodies correctly, while having no legal access to the data generated by the platforms. A trusted third party could provide a solution to this dilemma. At the same time, a platform could benefit if it were rewarded for correct behavior with a quality label.

New regulations may also help to resolve the question of the status of work. Currently, it is unclear whether freelancers who find work via a platform are actually employees of that platform, legally speaking. One way to solve this problem is to create a separate "third category" for platform workers with a status between that of self-employed person and employee. This would make it possible to increase the level of labor protection for platform workers, without taking away the freedom to choose their own working times and to operate for multiple platforms. Though this may solve some of the specific problems that platform workers currently face, it may also degrade the labor protection of employees more generally if employers in many other sectors decided to re-classify their employees into the third category. Instead, as an alternative solution, the Dutch government officially announced in June 2019 that a minimum hourly tariff would be installed for any freelancer to avoid precarity among freelancers, whether they work via a platform or not.

With regard to privacy protection, some fundamental new regulations have been brought into force in the European Union. As all platforms collect personal data (and many also re-sell them to third parties), this generic regulatory approach seems justified. The EU's General Data Protection Regulation (GDPR) introduced in May 2018 aims to empower platform participants to gain more control over their personal data than currently is the case (see www.eugdpr.org). Among other regulations, the GDPR grants platform participants the rights "to obtain from the data controller confirmation as to whether or not personal data concerning them is being processed, where and for what purpose" and "to have the data controller erase his/her personal data, cease dissemination of the data and potentially have third parties halt processing of the data." The GDPR also introduces easy data portability across platforms, which promotes competition among platforms (Yaraghi & Ravi, 2016). However, the question of data ownership is not addressed. In the current institutional constellation, the only way to secure such ownership for p2p suppliers of goods and services seems to be through the setting up of their own platforms through cooperatives (Scholz & Schneider, 2016).

Deregulate

A third policy option is deregulation. By scrapping rules, government can legalize a practice that was once illegal. Imposing fewer requirements (for example) on a driver and the car used as a taxi, reduces the cost and complexity of taxi

licenses, and consequently more people will come forward as (part-time) taxi drivers. The main rationale for deregulation seems to lie in the domain of product and service regulations. To the extent that ratings and reviews are effective in filtering quality, consumers may still be sufficiently protected in the absence of formal product and service regulation. Additionally, one may expect lower prices and more variety to emerge once restrictions are taken away. However, with prices going down, income inequality may well increase as gig workers are not generally well paid. While consumer interests may still be well served in a deregulated context with p2p suppliers competing on quality for p2p consumers, labor interests may need more legal protection as p2p consumers tend to care less about the well-being of p2p suppliers.

Note that the deregulation of consumer, labor and privacy standards may strengthen the public interests of level playing field and tax compliance, as a side effect. If the consumer and/or labor regulations are removed, and all suppliers start adhering to the same set of remaining minimum standards, a level playing field is restored. Similarly, if privacy regulations are lifted that currently prohibit governments from obtaining personal data on activities undertaken by peer-suppliers, taxes could be collected more easily. What is more, if platforms start sharing data with governments, such data can also be made available to independent researchers for scientific research and policy assessment (Frenken & Schor, 2017).

A different route regarding tax compliance is to create a tax exemption regime for income from sharing/gig platforms. For example, the Belgian government has introduced an annual ceiling of €6000, below which income from the gig economy is not taxed. Similarly, the Danish government has introduced a tax-free ceiling of roughly 36,000 DKK (approximately €4,700) for home-sharing income realized via an online platform such as Airbnb (2017). Tax exemptions for sharing/gig income would clearly not help in restoring a level playing field between p2p suppliers and incumbents. Instead, such a tax regime would codify the existing malpractice and the resulting uneven playing field. Moreover, tax exemptions for the gig income helps low-income platform gig workers, but may increase income inequality resulting from sharing because valuable goods such as city apartments, campers and boats are generally in the possession of high-income consumers (Frenken, 2017). The rationale for tax exemption, in some cases, seems to lie in government access to platform data, which is currently hampered by privacy regulations platforms. Indeed, those platforms that want to grant their p2p suppliers a tax exemption, will have to exchange personal data on their p2p suppliers with the government. In this way, the data position of the government—both vis-à-vis the platform and vis-à-vis its users—is strengthened.

The choice for new regulations that cap a certain peer-to-peer activity versus deregulation of the same activity will affect consumer interests in different ways. As explained, a cap on peer-to-peer activity provides consumers with a choice regarding the amount of institutional protection they want. A professional provider might be more expensive than a p2p supplier, but one can be assured of a higher level of professionalism and institutionalized consumer protection. With deregulation, however, the rules are relaxed for everyone, so consumers no longer

have this choice. On the positive side, deregulation removes the uneven playing field. Deregulation also means that the public interests served by the rules that are still in force will then be better served because they will apply to all providers, assuming that the remaining regulations are easier to enforce.

Tolerate

Finally, a government can decide to tolerate an activity that is nevertheless strictly speaking illegal. In the Netherlands, up until now, this has been the approach applied to smaller platforms like SnappCar, Helpling, and AirDnD. There might be two reasons for this. First, tolerating can be a pragmatic stance toward a new development that, initially, starts as a marginal practice. In this initial phase of a new development lessons can be learned collectively about platform impact, both positive and negative. A second rationale for toleration lies in the limited capacity of government enforcement agencies to effectively enforce existing regulations. For example, checking the food safety in all home restaurants or the fire safety in all homes being shared, would overburden enforcement agencies. Note that condoning illegal practices for such pragmatic reasons is not new in the Netherlands: for example, informal labor in the home cleaning sector has been tolerated, because alternative solutions such as subsidies were considered to be too expensive and susceptible to fraud. Hence, banning a cleaning platform like Helpling would not solve the persistent problem of informal labor in the domestic cleaning sector, which continues to persist with or without online domestic cleaning platforms. Tolerating peer-to-peer activity intermediated by online platforms is often legitimized in public debate by pointing to the popularity of services among users, otherwise known as “practical legitimacy” (Suchman, 1995). Indeed, reading from the massive growth of platforms, few users seem to worry about the public interests at stake as well as the risks they may encounter privately. Furthermore, many point to the effective modes of self-regulation that platforms have developed, including the rating and reviews systems (Ministry of Economic Affairs, 2015; Sundararajan, 2016).

Regarding labor protection, tolerating illegal practices is broadly considered undesirable given the already precarious situation of low-paid work in otherwise poorly regulated contexts. What is more, given that labor law is highly standardized across sectors, unequal enforcement of such standards would yield inequalities across sectors. However, even regarding the public interests of labor protection, sectoral differences can be of relevance. For example, while in some sectors people depend for the larger part of their income on gig platforms (e.g., cleaning and taxi services), in other sectors people earn only a little additional income beside their regular job (e.g., home restaurants). Similarly, in some sectors like food delivery, home tutoring and babysitting, most gigs are done by young people who may value flexibility more and social security less than others. In the latter case, one may argue, labor protection is less urgent as a public interest. What is more, in the absence of new regulation or enforcement of existing regulation, gig labor may self-organize in providing forms of social security through voluntary

schemes or by setting up their own platform cooperatives and competing with the existing for-profit platforms. Some of these initiatives are already visible, especially in the US taxi markets (Scholz & Schneider, 2016).

Subsidiarity

Regarding all public interests, one may ask at what governmental level an interest is best served. This question is not a trivial one, given that all level of Dutch government have already presented tentative policy frameworks concerning the sharing/gig economy, including the Municipality of Amsterdam (2016b) at the local level, the Ministry of Economic Affairs (2015) at the national level, and the European Commission (2016) at the transnational level. In their frameworks, the division of labor between the different levels has not yet been explicated. In general—and in the spirit of the European Union’s subsidiarity principle (Hatzopoulos & Roma, 2017)—one could argue that the immediate policy level is the municipality level, as sharing/gig platforms concern local transactions with mainly local (positive and negative) externalities. Indeed, licenses in sectors like the taxi, hotel and restaurant sectors are locally organized and specific regulations apply locally, often within national framework.¹¹

That said, some public interests have traditionally been taken care of at national level (income tax, labor protection) or even transnational European level (information privacy on the Internet, anti-trust). Indeed, many policy challenges are characterized by multi-level governance, and the challenges posed by online platforms are no exception. The resulting complexity necessitates coordination but, possibly, may also cause tension. For example, while the European Commission has considered the stimulation of sharing/gig platforms as a key objective within its innovation and single market policies, it nevertheless has to leave it to Member States (and their municipalities) to consider specific regulations regarding the protection of labor and regulations of specific sectors including the taxi, hotel and restaurant sectors.

Conclusion

The advent of sharing and gig platforms over the last decade has been welcomed by consumers, witnessing the widespread popularity of such online platforms. Other stakeholders—including representatives of incumbent businesses—also view p2p services as a true innovation that increases to consumer welfare, in terms of flexibility, variety, and lower prices. What is more, especially in the domain of goods sharing, there is a potential to improve the sustainability of consumption as idle capacity is better utilized.

Strict enforcement of all existing regulations—leading to a de facto ban of most p2p activity—is therefore an unlikely policy choice, exceptions aside. At the same time, tolerating p2p activities that are detrimental to some of the most fundamental public interests also seems undesirable. In particular, few are willing to give up the high levels of consumer, labor, and privacy protection. While toleration provides

room for business model innovation, experimentation and collective learning by the stakeholders involved, it seems untenable from a political perspective to allow a practice that violates multiple regulations, to grow in a rampant manner.

New regulations or deregulation currently seem the more promising policy options to institutionalize the new p2p practice intermediated by online platforms. As we have argued, the exact rationales and expected impacts of either policy option differ between each of the public interests at stake and, in some cases, per sector as well. In particular, while consumer interests may still be well served in a deregulated context with p2p suppliers competing on quality for p2p consumers, labor interests are probably ill served by deregulation as p2p consumers tend to care less about the well-being of p2p suppliers.

Where peers may have a common interest—in any sector—is the protection of their privacy. The current business models of most platforms are not only based on providing an intermediation service to peers in return for a commission, but also on the build-up of big data of supplier and consumer profiles, which are sold to third parties for direct advertisement, among other services. An alternative privacy regime would empower the peers by granting them control over their personal data and, possibly, even ownership. Though this would incentivize a more transparent and responsible attitude by platform vis-à-vis the transacting peers, it would at the same time re-open the debate about information privacy of peers vis-à-vis governments. Indeed, the question as to what data should be released to government so as to enable them to enforce regulations and levy taxes, then remains an open one.

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Notes

This study was funded by Rathenau Instituut, “Sustainable Business Models” program (no. 438-14) and Netherlands Organisation for Scientific Research (NWO), “Sustainable Business Models” program (no. 438-14).

1. www.airbnb.com/about (accessed December 9, 2017).
2. www.drivy.be (accessed December 10, 2017).
3. While our study focuses on the Netherlands, the conclusions can be made relevant to other countries as well, given the platforms and the resulting debates about the public interests at stake are common to many countries.
4. Known as UberX in the United States, and some other countries outside Europe.
5. AirDnD changed its name to ShareDnD in the summer of 2017, following complaints by Airbnb.
6. In addition to the national statutory framework, Convention No. 189 concerning decent work for domestic workers of the United Nations’ International Labour Organisation is also relevant. The

Netherlands signed Convention No. 189 in 2011, but has not yet ratified it. The convention states that the rights of domestic workers in terms of social security must not be less favorable than those of other employees. It also provides that domestic workers are entitled to a minimum wage, regulation of their working hours, access to social security, and protection against discrimination and abuse. In response to the signing of ILO Convention No. 189, a Dutch government committee concluded in 2014 that the HSR and the ILO Convention were mutually inconsistent because the legal position of workers was different under each of them.

7. Amsterdam Airbnb veel duurder dan elders (“Airbnb in Amsterdam much more expensive than elsewhere”). *Het Parool*, September 27, 2017, <https://www.parool.nl/amsterdam/amsterdamse-airbnb-veel-duurder-dan-elders-in-europa~a4519169/>.
8. Other public interests concern competition among platforms, discrimination among peers, and maintaining public order. Here, we do not go into the question whether sufficient competition between platforms exists, nor how to deal with online peer-to-peer discrimination, as we consider these problems to be a more general issue in platform markets, including search engines, social media, and second-hand market places (Evans & Schmalensee, 2013; Light, 2018; Martens, 2016). For a U.S. policy report dealing with the two issues, see Yaraghi and Ravi (2016). Maintaining public order, by contrast, is a public interest that is rather specific to only a subset of the sharing/gig economy. In particular, concerns have been raised about nuisance from neighbors renting out their homes to tourists and running a home restaurant (see Frenken et al., 2017).
9. Belastingdienst worstelt met Interneteconomie (“Tax office is struggling with Internet economy”), September 6, 2016, <https://nos.nl/artikel/2130175-belastingdienst-worstelt-met-interneteconomie.html>.
10. This conclusion was confirmed at the expert hearing with the Committee on Social Affairs and Employment of the Dutch Parliament (November 6, 2017) and the public debates at Pakhuis de Zwijger (September 14, 2017) and Stibbe (November 23, 2017). See also, Appendix 3.
11. What is more, the spatial distribution of the sharing/gig economy seems highly skewed, with most activity taking place in the largest cities. For the sharing economy, the concentration of transactions in large cities can be understood from the relative scarcity of housing, cars, and parking spaces. The popularity of gig economy services in large cities relates to the economies of density in their provision, especially in on-demand services like taxi and food delivery, while some markets (like cleaning) can equally grow outside large cities.

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Appendix 1: List of Interviewees

Case	Date	Organization	Position
Helping	04-2016	Helping	CEO, Helping Netherlands
Helping	06-2016	Ministry of Social Affairs & Employment	Directorate Labour Relations Labour Market & Social Affairs
Helping	05-2016	Cleaning & Corporate Services Industry Association (OSB)	Head Working Conditions & Social Security Policy adviser KAM and Economy
Uber	10-2015	KNV Taxi	Policy adviser
Uber	11-2015	Ministry of Economic Affairs	Competition & Consumer Economic Policy
Uber	11-2015	Ministry of Infrastructure and the Environment	Policy adviser
Uber	11-2015	Taxi Centrale Amsterdam (TCA)	Director
Uber	12-2015	UC Berkeley	Adjunct Professor
AirDnD	04-2016	AirDnD	Co-founder
AirDnDAirbnb	04-2016	Koninklijke Horeca Nederland (KHN)	Policy adviser
AirDnDAirbnb	04-2016	Dutch Food and Consumer Product Safety Authority (NVWA)	Coordinating specialist inspector Strategic adviser on enforcement
Airbnb	04-2016	Airbnb	Director Public Policy (EMAE)
SnappCar	05-2016	Greenwheels	Location Manager
SnappCar	04-2016	Ministry of Infrastructure and the Environment	Senior policy officer on mobility
SnappCar	06-2016	SnappCar	Public Relations SnappCar
Generic	06-2016	Regulator (consultancy)	Founder

Appendix 2: Interview Protocol

Semi-structured interviews were conducted with the people listed in Appendix 1. The protocol below was followed for all of the interviewees, with the exception of Mr Mindert Mulder (Regulator), with whom we only discussed the policy options. The common topics covered in all of the interviews were the following:

1. About the platform

- What type of platform? When was the platform established? What were the motivations to found the platform?
- What is the mission of the platform?
- What are the goals and ambitions of the platform?
- Do you consider the platform to be part of the sharing economy?
- How do you view the “old” economy? What is different compared to the platform economy?

2. Public interests

- To what needs/demand the platform responds to?
- Which public issues are at stake in the sharing economy?
- Which public interests are affected by the platform?
- In a positive way? (entrepreneurship, competition, social cohesion, etc.)
- In a negative way? (safety, noise, level playing field, privacy)

3. Protecting public interests

- Should public interests at stake be protected/addressed? How and by whom? In what roles?
- Which (type of) regulation applies to the platform? Does the platform fit in?
- How do governments (local, national) deal with the platform and regulation? (and how did they respond?)
- How should governments deal with platforms? What vision/view should a government have?
- Which policy options are available? How to steer this development?

4. Interaction between government, platform and stakeholders

- Are/were you involved in the policymaking process? How?
- Do you collaborate in policymaking (with governments)? Policy co-creation?
- How would such a collaboration ideally look like?
- What do you encounter as a platform in the policy making process? What are the barriers?

5. Politics and public debate?

- What do you think about the political and public debate about the sharing economy and digital platforms?
- What are important topics/issues in this debate?
- What role should governments and science (universities, experts) play?

6. Trends and developments

- How do you think the sharing economy will develop in the next 5-10 years?
- What will be key technologies driving this development?

Appendix 3: Participation at Meetings About the Sharing and Gig Economy

Stakeholder meeting “Innovation deal – food sharing”

Ministry of Economic Affairs, 9 June 2016, The Hague, The Netherlands

With representatives of AirDnD, Thuisafgehaald, ShareNL, Ministry of Economic Affairs, Ministry of Health, Welfare & Sport, The Regulator, and Rathenau Instituut

Public debate “Sharing Economy”

NRC national newspaper, 28 October 2016, Amsterdam

With representatives of Airbnb, BlaBlaCar, BMW, Peerby, SnappCar, CTO Municipality of Amsterdam, OuisShareFest, and platform economy experts

Public debate “Working in the platform economy”

Pakhuis de Zwijger, 14 September 2017, Amsterdam

With CEO Helping, CEO Werkspot, labor union representatives from Sweden (Unionen) and The Netherlands (FNV, AVV), lawyer from Stibbe law firm, an platform economy expert

<https://dezwijger.nl/programma/werken-in-de-platformeconomie> (in Dutch)

Round table “ICT, open societies and new institutions”

World International Network on Institutional Research (WINIR), 15 September 2017, Utrecht

With representatives of Swedish labor union Unionen, Dasy Investment firm, Royal Netherlands Academy of Arts and Sciences

<http://www.deeeconomiein nederland.nl/round-table-ict-open-societies-and-new-institutions/> (in English)

Expert hearing “Work in the platform economy”

Parliament, Committee on Social Affairs and Employment, 16 November 2017, The Hague

https://www.tweedekamer.nl/debat_en_vergadering/commissievergaderingen/details?id=2017A03004 (in Dutch)

with CEOs of Foodora, Helping, Temper, Thuisbezorgd, Werkspot, five platform workers and five platform economy experts

Public debate “Platform labor”

Stibbe law firm, 23 November 2017, Amsterdam

With CEOs of Foodora, Temper, Part-up, labor union FNV, Stibbe lawyers