

*CPI's Europe Column Presents:*

# The Sharing Economy, Competition and Regulation

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## Abstract

The term 'sharing economy' has become an umbrella encompassing different types of economic activities, somewhat informal, though all of them dependent on online platforms that bring together providers of different goods and services and users, and where mutual trust is an essential input as standard and more intrusive regulation is often absent. Involving new governance structures as a response to lower transaction costs, the sharing economy can promote greater efficiency in the use of already existing economic assets and lead to possibly better investment strategies. Besides questioning traditional economic regulation, it may also pose challenges to competition policy, as regarding for example the use of common pricing algorithms. Uber, one instance of the 'sharing economy' when loosely understood, has experienced particularly contentious challenges to its activity in many of the different countries and municipalities where it operates or used to operate. Its activity has challenged long existing transport regulation and the incumbents' long standing presence in different markets. Reestablishing a level playing field may call for a welcoming revision of such regulations without discouraging efficiency enhancing technological changes. This reform process may benefit from well-established strands in economics, namely transaction costs economics and club goods theory, as they may help us to better understand the impact and future developments of the 'sharing economy'.

## Introduction

Sharing assets is an old practice in human societies. The so-called "sharing economy" is much more recent, as it involves matching people who want to share assets via online platforms, potentially at a global scale, through the use of personal computers, tablets and smartphones.

The term "sharing economy" may not have a consensual definition and has been used as a catchword encompassing different, but possibly overlapping, types of more or less informal economic activities, though all of them dependent on online platforms and all of them involving new governance structures<sup>2</sup>. In fact, terms such as "sharing economy", "on-demand service" and "collaborative consumption" have been used as close substitutes, or even synonyms<sup>3</sup>. We may follow Botsman (2015) in her attempt, even if not totally successful, to clarify these concepts, by defining "sharing economy" as «*an economic system based on sharing underused assets or services, for free or for a fee, directly from individuals*», as is the case of Airbnb or BlaBlaCar<sup>4</sup>. On the other hand, Uber would be classified as an "on-demand service"<sup>5</sup>, i.e., «*a platform that directly matches customer's needs with providers to immediately deliver goods and services*». In this case, no sharing of underused assets may be involved at all<sup>6</sup>. In the case of "collaborative consumption", still according to Botsman, there is a reinvention of traditional market behaviors (such as renting, lending, swapping, sharing, bartering, and gifting) through a technology that takes place in ways and on a scale not possible before the internet. What is common to sharing economies, on-demand services and collaborative consumption is the use of computers, tablets, smartphones as IT devices

to easily access goods and services in the real world. For the purpose of this column, let us agree on using the term “sharing economy” as an umbrella for all these different activities<sup>7</sup>, as most of the issues that will be addressed here are common to all of them.

Sharing makes sense particularly for items that are expensive to buy and are widely owned by people who do not make full use of them, i.e., do not use them all the time, allowing others to use them in a non-rivalry way<sup>8</sup>. Sharing economies increase economic efficiency as they reduce idleness in the use of already existing assets, and may spur further investment<sup>9</sup>.

### “Sharing Economies”

Sharing economies involve new forms of production, transaction (mostly spot transactions) and consumption. They may be regarded as examples of “disruptive innovations” in that they compete with traditional ways of producing, distributing and consuming goods and services, through the use of technological innovations such as smartphones, digital content and online distribution that may be considered disruptive<sup>10</sup>. The new forms of production and of (mostly) spot transactions lead us back to the literature on ‘*markets vs. firms*’ and how these two alternative forms of organizing economic activity may arise to minimize associated transaction costs<sup>11</sup>. As these types of technological innovations (including the download of apps) reduce transaction costs (e.g., they reduce the costs of dispersion<sup>12</sup>, as it is now much cheaper to match the two sides of a market, i.e., they thicken an otherwise too thin a market, thus increasing economic efficiency<sup>13</sup>), they facilitate trade: people are able to rely more on (spot, peer-to-peer) markets (in this case, digitalized markets) and less on firms for the production and distribution of goods and services. I.e., on ‘*markets vs. firms*’ as two alternative forms of organizing economic activity, we would see “*more markets and less firms*”<sup>14</sup>.

Sharing economies include activities such as: people and pets’ accommodation; car-sharing and car-parking; ; boat and bike-sharing; air travel; rental of art works, designer clothes and accessories; start-up financing, peer-to-peer lending, crowdfunding and consumer loans; computer programming;; skill and tool / DIY; marketing and branding. Even if several incumbents operating in these markets may fight this new type of competition, some incumbents are themselves joining in the “sharing economy”. This is the case with e.g., Avis, Daimler, GM, B&Q in the UK, by listing excess capacity (cars, office space, and other durable physical assets) on peer-to-peer rental sites. And they have the advantage of bringing in their solid reputation. Just like what has been happening with online shopping (Walmart and Tesco, for example). They are not necessarily cannibalizing themselves; they want to compete with newcomers and expand their markets<sup>15</sup>.

For online platform mediated transactions in the sharing economy to be successful, high enough degrees of coordination and trust have to be guaranteed and maintained over time.

As for coordination, and as mentioned above, online platforms allow for easier and better matches between larger numbers of providers and customers: as they reduce the costs of dispersion, it is much cheaper to match the two sides of a market. Concerning trust, for people to be willing to be a part of sharing economies, and in view of economic agents bounded rationality and information asymmetries, they expect that opportunism, hold-up problems, and other contractual hazards are held down to acceptable levels. Among other things, this means being able to rely on internet based reputation systems, possibly of their own design and for their own use, as part of a governance structure that guarantees the existence and attainment of separating equilibria outcomes, where trustworthy people are publicly discriminated from opportunists<sup>16</sup>. In fact, ill-designed internet reputation systems, unable to deliver a high enough level of the public good “trust”, can jeopardize the very existence of a sharing economy<sup>17 18</sup>.

How significant are “sharing economies”? Figures are hard to come by but PwC has calculated that on a world basis, the sharing economy is currently worth around US\$ 13bn, with this value rising to around US\$ 335bn by 2025<sup>19</sup>, and this just including peer-to-peer accommodation, car sharing, peer-to-peer finance, music, TV and video streaming, and online staffing.<sup>20</sup>

### **Competition and Regulatory Challenges**

What new challenges for competition policy, if any, do sharing economies raise? For example, does the ‘Uber pricing algorithm’ pose any challenge for antitrust, e.g., does it facilitate some form of collusion or price/behavior parallelism among drivers working with Uber? Is it responsible for the so-called ‘Uber prices surges’ that has been criticized by Uber customers?<sup>21</sup> When competitors agree on a pricing structure rather than competing against each other, this may qualify as price fixing. If drivers working with Uber are independent contractors and Uber’s pricing algorithm they use does not guarantee their prices are determined in an independent fashion, then price fixing may be occurring. To what extent such algorithms are essential for the well-functioning of the platform? In general, one can question to what extent does the increasing use of ever “smarter algorithms” in market transactions, in particular transactions mediated via online platforms, raise competition concerns in light of TFUE article 101, even starting with the proper determination of liability for misconduct and illegal behavior.<sup>22 23</sup>

As for economic regulation, and following Grossman (2015), we can set a contrast between classic economic regulation, when it restricts access to an economic activity to achieve certain public policy goals, e.g., public safety, and a less intrusive economic regulation which relaxes market access restrictions. For a less intrusive regulation to be viable and acceptable, it depends on the success of internet reputation systems which, by using large amounts of real-time data on economic agents participating in sharing economies, can sustain separating equilibria outcomes most of the time, lowering enforcement and accountability costs<sup>24 25</sup>. In fact, moving towards a more decentralized and less intrusive

type of regulation, where peer pressure and peer review play such a crucial role, will be less desirable if the information asymmetry between the different economic agents involved in an online platform mediated transaction is too high and difficult to overcome. For example, in the case of credence goods or services, such move may be difficult to justify as any peer review, even in the case of homogenous preferences between peers, will provide me with a noisy signal about the true quality of the good or service. Is this the case with Uber? According to some recent Court rulings in different jurisdictions, which do not necessarily regard Uber as simply an online platform, Uber's activity does pose a risk to customers, which will warrant some form of protection by the State as there is a public security issue at stake.

Another challenge that today's regulators face are the increasingly blurred dividing lines between who is a professional (or dedicated producer/seller) and who is not (i.e., who is a peer seller) when they both offer the same type of goods or services, i.e., when they can coexist and compete with each other<sup>26</sup>. Even if in any given jurisdiction the regulator is able to make a clear distinction between them in each instance, the point is that the number of instances needing clarification may grow very fast and a broad and stable enough distinction may be elusive. Hence, it seems that the "sharing economy" not only has been challenged by existing regulations, but it is itself posing challenging questions on the scope and intent of such regulations. Finally, the challenges posed by sharing economies to the fiscal system are certainly important but their analysis lays beyond the scope of this short note.

### **The Case of UBER**

Together with Airbnb, Uber has occupied a central role in recent academic papers and in specialized news on the "sharing economy"<sup>27</sup>. The way different jurisdictions have responded to the challenge posed by Uber to incumbents illustrates several of the issues raised above. For the most part, these responses have been of a regulatory nature. Drivers operating for Uber are said to be operating without the proper licenses; Uber itself has been regarded as a company operating transport services but doing so without the proper licenses and certificates; public safety issues have also been raised. Moreover, complaints about Uber's "unfair competition" when, it is claimed, there is already an "excess supply of taxi services" (a claim which is hard to reconcile with the very high values taxi medallions achieve in the secondary market, e.g., on online auction platforms such as OLX), have been reflected in decisions by Courts called to rule on the matter in several jurisdictions, sometimes answering requests for an injunction to be issued against Uber's activities. This was the case in Portugal, where Uber had been operating its service Uber Black since July 2014, and UberX since December 2014. Following a complaint by a national association of taxi owners, using most of the arguments mentioned above, a preliminary injunction against Uber was issued by a Court in Lisbon last 24<sup>th</sup> April 2015, followed by an appeal by Uber and a final decision by this same Court last June 25<sup>th</sup>, prohibiting Uber's activities in Portugal.

Many of these complaints by incumbents go beyond competition policy, at least as defined in many jurisdictions. However, they have the merit of focusing our attention on the need to

revisit the existing regulatory framework on taxi services, which may have outlived its usefulness and whose broadness and intrusiveness may be hard to justify. Another recurrent issue, over which there is already some jurisprudence<sup>28</sup>, is on whether drivers contracting with Uber are its employees or operate as independent contractors. As mentioned above, their juridical nature is crucial in helping to determine whether Uber's pricing algorithm can be regarded in any way as facilitating collusion between independent market operators.

Finally, the forceful response of taxi services incumbents to what they regard as Uber's encroachment on their economic activity has a lot to do with the very high values taxi medallions achieve in the secondary market, as mentioned above. The owners of such medallions regard them as an important part of their retirement plan and, as such, will strongly oppose their devaluation following a market liberalization initiative. Taxi services in Ireland were deregulated by a Decision of the Irish High Court in 2000, and affirmed by judicial review in 2001<sup>29</sup>. The High Court also issued three judgments against compensation for the holders of taxi medallions following the deregulation of the sector and the devaluation of such medallions in the secondary market. This is to say, holding a medallion was not considered a property right meriting compensation following its devaluation.

## Conclusion

The term "sharing economy" encompasses different types of economic activities, somewhat informal, all of them dependent on online platforms matching providers of different goods and services and their users to an extent greater than ever, and where mutual trust is an essential input in the absence of a standard and more intrusive regulation. The sharing economy promotes greater economic efficiency by allowing a more intensive use of underused economic assets already held by households. The "sharing economy" is rising in value and is set to surpass US\$ 330bn by 2025. Airbnb and Uber are possibility its best known examples. Both have raised regulators' concerns, as they challenge long-existing regulatory frameworks, particularly in the case of Uber, and have led to complaints of "unfair competition" by incumbents and, in some cases, to court decisions based on existing regulations. There is a need to reestablish a level playing field, which may call for a revision of those regulatory frameworks, as they may be unsuitable to deal with efficiency enhancing technological changes. The "sharing economy" may also raise some competition issues, as when independent contractors operating on one side of the platform may be using a common pricing algorithm. New regulatory and competition issues may arise as the sharing economy evolves and its characteristics are better understood.

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- <sup>2</sup> The study of governance is concerned with the identification, explication and mitigation of all forms of contractual hazards – see Williamson, 1996, p. 5.
- <sup>3</sup> Other terms being used are “asset-light lifestyle”, “collaborative economy”, “peer economy” and “access economy”. They can involve C2C, B2C, C2B and B2B “sharing”.
- <sup>4</sup> Other examples are Cohealo, JustPark, Skillshare, RelayRides and Landshare. The Oxford Dictionary of English defines “sharing economy” as «*An economic system in which assets or services are shared between private individuals, either for free or for a fee, typically by means of the Internet*». Woskrow (2014) defines “sharing economy” as “*online platforms that help people share access to assets, resources, time and skills*”. This definition underlines an important characteristic of the “sharing economy”: the significant level of *disintermediation* it allows in transactions between providers and final customers.
- <sup>5</sup> See P. Guniganti, 2015.
- <sup>6</sup> There is a clear difference between, say, Blablacar and Uber. BlaBlaCar connects drivers and passengers willing to travel together between cities and they *share* the cost of the journey. Uber connects *paying* customers and taxi-like service providers, who might even work full time in that capacity. However, a distinction between Uber and Airbnb might be more difficult to draw.
- <sup>7</sup> According to Sarah Kessler (2015), the real sharing economy (with its vision of “neighborhood sharing”, i.e., less consumerism and more sharing) is dead. Many startups that gave real meaning to the concept of “collaborative consumption”, a term that was replaced by the term “sharing economy”, are now dead or in decline. The better known “brands” such as Uber and Airbnb, are still around in spite of the many difficulties that have faced in several jurisdictions. However, according to some investors and analysts, their headline valuations (US\$ 50 for Uber, US\$ 24 for Airbnb) are “*mere marketing numbers when they reach the harder reality of an IPO*” (see *Financial Times*, November 11<sup>th</sup> edition, 2015).
- <sup>8</sup> }When in the presence of goods and services exhibiting non-rivalry but excludability, as is the case in many examples of sharing economies, we are reminded of the so-called “Club Goods Theory”. A “Club” is a voluntary group of individuals who derive mutual benefit from sharing one or more of the following: production costs, the members’ characteristics, or a good/service characterized by excludable benefits. When production costs are shared and the good is purely private, a “private good club” is being analyzed – see Cornes & Sandler, 1996, p. 347. Of course, in the case of peer-to-peer money lending, ‘intertemporal non-rivalry’ is absent. But when one talks about “collaborative consumption”, one would say some form of non-rivalry has to be present. This characteristic may be less obvious in other types of the “sharing economy”.
- <sup>9</sup> I am not dealing here with formal ‘Licensing Agreements’, defined as written agreement entered into by the contractual owner of a property or activity giving permission to another to use that property or engage in an activity in relation to that property, where the property involved can be real, personal or intellectual. Licensing agreements can be an intangible but valuable asset in industries such as technology, biotechnology and publishing. These agreements are a large part of intellectual property law, particularly in terms of enforcement of copyrights, trademarks and patents.

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- <sup>10</sup> Let us follow De Streeck & Larouche (2015) who define disruptive innovation as “a *technological innovation that takes place outside the value network of the established firms and introduces a different package of attributes from the one mainstream customers historically value*”.
- <sup>11</sup> By “transaction costs” I mean the costs associated with negotiating, reaching and enforcing agreements. Hence, an easier matching of the right people will typically reduce transaction costs. As mentioned in Williamson (1996), and following K. Arrow’s definition of “transaction costs” as ‘the costs of running the economic system’, if one views the economic system from the standpoint of contracts, transaction costs can be thought of as the costs of contracting. See also Coase (1988).
- <sup>12</sup> See M. Spence, 2015.
- <sup>13</sup> See Li Gan & Qi Li (2004) where a matching model is proposed to analyze the efficiency of thin and thick markets.
- <sup>14</sup> As an example, this happens when spot labor markets replace long-term employment contracts offered by firms. In the latter case, and contrary to spot labor markets, those firms typically will have to provide benefits to its workers, such as health and disability insurance. Moreover, greater reliance on markets than on firms for the development of economic activities may pose new challenges to competition policy.
- <sup>15</sup> As mentioned by L. Einav et al. (2015), eBay may have started as a consumer auction platform but it became a sales channel for many larger (brick-and-mortar) retailers. Labor markets such as oDesk and Freelance have organized firms that bid for jobs, and some peer-to-peer financial service platforms have tried with varying degrees of success to attract professional/dedicated lenders.
- <sup>16</sup> See T. Slee, 2013. These reputation systems or schemes used by online platforms may be of their own design and for their own use. But there are also independent quality controllers providing similar services.
- <sup>17</sup> See Bolton et al., 2012. The authors analyze reciprocity in feedback giving and the way they may distort the production and content of reputation information in a market, hampering trust and trade efficiency. Guided by feedback patterns observed on eBay and other platforms, they run laboratory experiments to investigate how reciprocity can be managed by changes in the way feedback information flows through the system, leading to more accurate reputation information, more trust, and more efficient trade.
- <sup>18</sup> Free online social networks such as Facebook, Twitter, LinkedIn, QZone provide further relevant information about participants’ profiles in sharing economies, complementing the information provided by the dedicated internet reputation systems, and increasing the likelihood of achieving a suitable separating equilibrium. Successful participations in the “sharing economy” will foster trust: people’s repeated and successful participation in the “sharing economy” enables the accumulation of each participant’s “stock of trust” and the overall “stock of trust” of the “sharing economy” itself, as the latter is a function of all the participants’ “stocks of trust”. Greater trust leads to greater participation in the sharing economy which, in turn, will produce greater trust, provided the number and negative impact of opportunists are kept sufficiently low. “*Blockchain*” technologies - see *The Economist*, Oct 31<sup>st</sup>, 2015 - can also be useful in the “sharing economy”.
- <sup>19</sup> See Woskov, 2014, and PwC website – interview with Norbert Winkeljohann.
- <sup>20</sup> According to a Report from PricewaterhouseCoopers titled “*The Sharing Economy*” based on a survey of US consumers and published this year, 44% of US consumers are familiar with the sharing economy, 19% of the total US adult population has engaged in a sharing economy transaction, 86% agree it makes life more affordable, 83% agree it makes life more convenient and efficient, 76% agree it is better for the environment, 78% agree it builds a stronger community. Moreover, 7% of the US population are providers in the sharing economy and they cut across age and household income. However, 72% agree they feel that the sharing economy experience is not consistent and 69% agree they will not trust sharing economy companies until they are recommended by someone they trust.
- <sup>21</sup> See J. Hall et al. (2015), B. Gurley (2014) and J. Surowiecki (2014).



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- <sup>22</sup> See the recent work by Ezrachi & Stucke (2015, <http://ssrn.com/abstract=2591874>) and by Mehra (2015, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2576341](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2576341)), and the need to revisit the concepts of “agreement” and “intent” for the purpose of antitrust enforcement in an economy where computers and algorithms play an increasing role in dynamic pricing and market transactions. See also Priluck (2015). On the use online platforms in the “sharing economy” can make of the extensive amounts of data they collect from buyers, sellers and peers in general, and whether there might lead to barriers to entry or foreclosure effects, the reader can be referred to the recent literature on competition issues raised by the so-called “Big Data”.
- <sup>23</sup> See the April 2015 case on e-commerce dealt with by the US Department of Justice’s San Francisco Division, involving David Topkins, the founder of “Poster Revolution”, purchased in 2012 by Art.com, concerning an algorithm he apparently had coded that enabled Topkins and his co-conspirators to agree to fix the prices of certain posters sold in the US through Amazon Marketplace – see US District Court, Northern District of California, San Francisco Division, *US v. David Topkins*, Violation: Title 15, US Code, Section 1 (Price Fixing).
- <sup>24</sup> Think of the role played by the price system in a market economy, with prices as conveyors of information on the relative scarcity of the different economic resources. Under a “transaction cost economics” point of view, a similarly important role is played by the information signals sent by thousands of interacting economic agents, in a decentralized fashion, on the trustworthiness and other relevant characteristics of their peers as revealed, if only partially so, by their behavior. The underlying modes of behavior may eventually coalesce into “social norms” or “behavioral standards” and associated expectations, accepted and enforced by a large enough majority of those participating in these online communities, and supported by equally agreed upon “technical standards”, even if always evolving and exhibiting different degrees of success.
- <sup>25</sup> Still according to PwC Report “*The Sharing Economy*”, 89% agree the sharing economy is based on trust between providers and users, and 64% of consumers say that in the sharing economy, peer regulation is more important than government regulation. These results, together with the arguments developed in this Note, underscore the importance of understanding the sharing economy as “*an economy built on trust*”.
- <sup>26</sup> There may be scenarios defined by peer and professional producers/sellers cost functions and by variability in demand that justify the presence of only professional/dedicated producers/sellers in a market equilibrium. In other scenarios, namely when final demand exhibits high variability, both types of producers/sellers may coexist in a market equilibrium – see L. Einav et al. (2015) for an analytical treatment of this issue.
- <sup>27</sup> See D. Geradin (2015) for a short but thorough treatment of some of the main challenges posed by Uber to competition policy. See also the March 9<sup>th</sup> 2013 issue of *The Economist* for an overview of the rise of the “sharing economy”. Uber can be regarded as an online two-sided platform where the “Uber pricing algorithm” defines a price structure applied to the taxi-like service provider and the customer, according to which the drivers keep on average 80% of the gross fare.
- <sup>28</sup> See the recent Decision by the California Labor Commission, June 2015.
- <sup>29</sup> See S. Barrett, 2003. As mentioned by the author, a ministerial proposal to increase the number of taxis by just adding vehicles to existing taxi licenses was challenged in the High Court by hackney drivers of private hire vehicles. This legal challenge was successful and entry to the taxi sector was deregulated by the High Court and not just restricted to those with existing taxi licenses.

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