On whether Uber has improved the market and how it should be regulated going forward

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Winner: Postgraduate Category
Institute of Business Ethics Student Essay Competition 2021

This essay argues that, while Uber has improved the market in the sense of producing a more efficient allocation of resources, regulation is required to prevent it from using its increasing monopoly power to reverse efficiency gains in the long run. I adopt the Market Failures Approach (MFA) to business ethics as outlined in Section I. In Section II, I analyse Uber's business model in terms of efficiency, exploitation of market imperfections, and the market's inherent monopolistic tendencies. In section III, I make two policy suggestions aimed at promoting competition that follow from my analysis. Finally, in Section IV, I consider an external objection, namely, that the MFA is insensitive to inequalities in the distribution of benefits.

Section I

Joseph Heath's (2014) MFA adopts a consequentialist framework. Societies are endowed with a scarce set of resources with which to produce social welfare (understood broadly as aggregate utility). The scarcity of resources implies that more welfare is produced the more efficiently resources are allocated. Maximising efficiency, therefore, is treated as a proxy for maximising social welfare – the ultimate consequentialist end. Following Hayek (1945), the MFA emphasises the unique capacity of the 'price mechanism' to produce Pareto-efficient allocations of resources, i.e., those in which no individual can be made better off without making anyone else worse-off. This occurs when demand is met with the right amount of supply at the right price such that markets clear and no resources are wasted. Under the ideal Pareto conditions of perfect competition – an absence of information asymmetries, barriers to entry, and externalities – competitive forces, powered by the profit-motive, are uniquely capable of processing the vastness and complexity of information required to generate market-clearing prices. The mechanism works as follows.

Firms that supply an in-demand good at a price consumers are willing to pay are rewarded with profits which signal to other profit-maximising firms that they too should allocate resources towards supplying that good. Additional competition in the market drives prices down to the equilibrium level where marginal costs equal marginal revenue, consumer surplus is maximised and markets clear. Since the

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profit-motive is the driving force behind this process, profit-maximising behaviour is, on the MFA, a moral requirement of firms.

To support his claim about the unique capacity of the price mechanism, Heath (2014, p. 30) references the Soviet Union's practice of looking to the capitalist world to determine the prices of centrally controlled goods. A more recent example is the British 3G auction of 2000. The UK government used an auction system designed by economists Ken Binmore and Paul Klemperer to sell five additional spectrum capacity 3G licences. The auction was designed to replicate ideal market conditions and ensure that licences were allocated to those companies that would put them to best use. The designers argued (2002, p. 67) that it would be able to extract and use information otherwise unavailable to the government to generate an efficient price. The licences sold for a combined £22.5bn, four-and-a-half times more than the government's initial valuation. This success, and the discrepancy between the expected and realised prices, gives credence to the MFA's emphasis on the price mechanism.

However, the ideal Pareto conditions never obtain in real markets. Whereas profit-maximisation under perfect competition is conducive to markets clearing, pursuing profit by exploiting market imperfections tends to have the opposite effect: market failure. For example, suppose a train company exploited barriers to entry to restrict competition and then raise fares astronomically, such that it made large profits despite only ever selling half its tickets. Its profits would reflect a misallocation of consumers' income and the empty seats a wasted resource. The MFA, then, holds that firms are morally permitted to pursue only the set of profit-maximising strategies that would be available under the conditions of perfect competition, as only those are known to be conducive to markets clearing. With this moral framework in mind, whether Uber has improved the market will depend on whether it has produced a more efficient allocation of resources and whether it exploits market imperfections for profit.

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Section II

Uber has produced a more efficient allocation of resources by reducing the transaction costs associated with the market for taxis in three key ways. Firstly, Uber's app offers a double-sided platform that matches suppliers (drivers) with buyers (riders). Double-sided platforms benefit from indirect network effects: increases in users on one side of the platform make it more attractive for users on the other (Schmichowski, 2018, p.45). More riders using the app means more demand for taxis and, therefore, more jobs for drivers. More drivers using the app means more supply and, therefore, more readily available and cheaper rides. Uber's crucial innovation lies in capturing the gains from this virtuous cycle and centralising the activities of a large proportion of actors in the market. This not only powered Uber's exponential growth but also reduced the costs involved in securing rides and finding jobs for riders and drivers respectively.

Secondly, Uber's use of machine learning algorithms allows it to meet more demand than was previously possible. Before Uber, whether demand for a cab could be met with supply depended on when and where that demand was situated. Black cabs operate primarily in city centres, while minicab companies supply a finite local area and are limited by their stock of drivers and cars. Moreover, drivers of both kinds have no systematic way of predicting the time and location of demand, such that some callouts cannot feasibly be met within an acceptable timeframe. Uber's algorithm allows it to predict demand with increasing accuracy and preemptively allocate drivers accordingly. This allows Uber to meet previously unmet demand and limit the amount of supply that is wasted searching for jobs at the wrong times and in the wrong areas.

Thirdly, Uber has reduced the search costs involved in securing a ride simply through digitalising the process and using maps to track locations. Hailing cabs from the roadside relies somewhat on chance, while the process of finding and calling a minicab company, exchanging relevant information with an operator who has to find and relay that information to an available driver, and waiting for that driver to arrive, is time-costly. Riders can now order an Uber and exchange relevant information with the press

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of a few buttons and are almost guaranteed, in virtue of the effects described above, to be in a cab in a matter of minutes. Insofar as time is a scarce and valuable resource for producing social welfare, this reduction reflects a significant efficiency saving when aggregating across thousands of daily rides. Riders can more productively allocate time saved elsewhere, while drivers spend less time idle and more time earning. Ultimately, these efficiency savings allow Uber to offer more rides for lower fares, increasing the number of feasible, mutually beneficial, welfare-improving exchanges in the market, as well as increasing consumer surplus for those riders who were previously willing to pay more.

Unfortunately, there are features of Uber's business model that exploit market imperfections and inhibit competition, in direct conflict with the normative requirements of the MFA. Firstly, Uber exploits information asymmetries to restrict the freedom of its drivers to choose how much and for whom they work. Under perfect competition, firms compete for consumers and workers over price and quality alone. It follows that workers within a particular labour market move to the firm that offers the best income/leisure ratio. However, Uber prevents drivers from transferring their customer ratings data (Ferretti, 2020) – which take months to build up, determine how many rides they are offered and how much they can charge – to other platforms. Ratings are necessary to overcome information asymmetries between Uber and riders regarding the trustworthiness of drivers. Preventing the transfer of these data, then, exploits a market imperfection to create a non-monetary disincentive against working for rival platforms. This is especially pertinent due to the indirect network effects inherent to the industry. Platforms are more attractive to riders the more drivers they employ, so limiting the supply of the latter prevents rivals from growing. Uber also uses non-monetary incentives, such as video-game-style rewards, to encourage drivers to work longer hours, or against working for competitors, further distorting the functioning of the price mechanism (Schieber, 2017).

Secondly, Uber has continuously subsidised fares – paying drivers more per ride than the revenue generated – such that it has exclusively made losses across the majority of its markets (Schmichowski, 2018, p.62). As outlined above, profit-seeking behaviour powers the price mechanism. Equally, losses signal to other firms that they should not allocate resources to the supply of a particular good.

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Furthermore, loss-seeking behaviour exploits financial barriers to entry since Uber is only able to sustain its losses due to the abundant investment it has secured. This feature of its business model is particularly pertinent due to the 'data snowball effect' (Smichowski, 2018, p.45): algorithms work better the more they are used (the more data they are fed), and the better they work, the more attractive platforms become to users on both sides. First movers in such a market, therefore, tend to benefit from a virtuous cycle of increasing market power and, accordingly, an absence of competitive pressure. Without competition, there is no incentive for firms to allocate resources efficiently or confer any consumer surplus. Overall, then, while Uber has produced a more efficient allocation of resources and increased social welfare, its exploitation of market imperfections to limit competition, in the context of a market with inherent monopolistic tendencies, threatens to reverse such efficiency improvements in the long run.

Section III

Following from the above analysis, regulatory policies should aim at promoting the freedom of drivers by eliminating information asymmetries and preventing loss-seeking behaviour. Firstly, drivers' customer ratings data should be made publicly available or freely transferable between platforms and Uber should be banned from using any non-monetary incentives to manage its drivers. Firms would then be left to compete for drivers over the income/leisure ratio only, driving it up to the optimal equilibrium level and allowing rival platforms to grow.

Most crucially, a minimum pricing structure should be enforced to prevent firms from exhibiting long-run loss-seeking behaviour. Under perfect competition, the optimal price for a good is the point at which marginal cost equals marginal revenue, which should be the minimum that firms are permitted to charge after a certain time spent operating in the market. This would allow new entries to gain a consumer base by initially undercutting incumbents and offsetting the costs of switching between platforms, but also prevent firms from deliberately restricting competition and producing unsustainable increases in consumer surplus.

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It might be objected that monopoly power is not intrinsically bad and may not be used to raise fares or reverse efficiency gains. However, it is generally assumed that firms will charge as much as the market allows where the only restrictions are competitive pressure and consumers' willingness to pay. Furthermore, since Uber has eye-watering losses to recoup and investors to repay, it has even more of an incentive to raise fares, such that it cannot be trusted to benevolently maintain its current pricing structure without an incentive to do so.

An objector might also argue that enforcing higher fares would detract from consumer surplus and, thereby, social welfare. While this might be true in the short run, if the preceding analysis is correct, it will ensure that average consumer surplus in the long run is maximised by levelling the playing field and promoting competition. Moreover, there is an opportunity cost associated with sustaining the current levels of consumer surplus through subsidising fares using investment which could be put to better use elsewhere in the economy, leaving competitive forces to hold prices at the equilibrium. Clearly, it is a complex balancing act ensuring prices are high enough that fares need not be subsidised and low enough to maximise consumer surplus. I contend that only competitive forces, under the ideal market conditions which my proposals intend to replicate, are capable of striking the optimal balance.

Section IV

It has been argued that consequentialist approaches such as the MFA are insensitive to equality considerations in the distribution of gains from trade. Indeed, Pareto-efficient outcomes can be wholly unequal, such that a more efficient allocation of resources could exclusively benefit the most well-off. On this view, regulation should focus on redistributing the gains from trade from winners (riders) to losers (drivers) through means such as progressive taxation (Ferretti, 2020).

However, if the above analysis is correct, the current levels of gains from trade are unsustainable, such that the so-called winners may not enjoy them much longer. In any case, the policy suggestions made

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should be sufficient to redistribute gains with less bureaucracy (and so, more efficiently) by simply promoting competition. If drivers were free to shift labour between platforms, competition would drive up their average income/leisure ratio. Minimum pricing legislation would force riders to pay more for cabs which, even if drivers' commissions were held constant, would incur a flow in the gains of trade from riders to drivers. Furthermore, other so-called losers, namely, black cab drivers, would also become more competitive. Black cabs maintain a niche in the market in virtue of their iconic status, knowledge of cities, and capacity to use public transport lanes. With more competitive prices, black cabs could regain market share and offer these unique benefits to a greater proportion of riders. I therefore believe that regulation to promote competition and restrict the exploitation of market imperfections would be sufficient to ensure that efficiency gains are sustained and the benefits distributed more evenly between winners and losers.

This essay has argued that Uber, on balance, has produced a more efficient allocation of resources in the market and, thereby, increased social welfare. However, the inherent monopolistic tendencies of the market, Uber's exploitation of market imperfections and its history of loss-making suggest that it will use increasing monopoly power to reverse such efficiency gains in the long run if left unchecked. I have therefore proposed regulatory policies aimed at preventing the exploitation of asymmetries of information and barriers to entry, promoting the freedom of drivers, and prohibiting long-run loss-seeking behaviour. Greater competition will ensure that efficiency gains are sustained and reduce the opportunity cost of sustaining losses through investment.

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