A Two-Stage Social Contract as an Extended Model of Governance for Socially Responsible Digital Platforms: Possible Insights from an Experimental Design Testing Consumers' Prosocial Preferences for Ex-post Compliance after the Exogenous Shock of the Covid-19 Pandemic

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Introduction

The purpose of this paper is to apply a game-theoretical approach to analyse the business model of those particular institutions that are digital platforms. Accordingly, they are interpreted as the concretisation and accelerator of the global neoliberal trend that is making work always more insecure and precarious (Crouch 2019). Nevertheless, the exogenous shock of the Covid-19 pandemic appears to offer the opportunity of creatively destructing mainstream platforms and substituting them with a truly democratic alternative capable of reframing the strategic game governing digital firms. That was precisely the original ideal of the parents of the sharing economy after the global financial crisis of 2008. But, of course, I am fully conscious that the institutional point of view is only one of the possible ways to look to the gig economy since digital workers' experiences and behaviours vary significantly across and within platforms, while digital firms bring about different relations with conventional markets (Schor et al. 2020, 2021). Therefore, in this paper, with the name of the gig economy and digital platforms, I am referring mainly to labour-based 'lean platforms' (Srniceck 2017). I.e., platforms that only own the digital architecture, brand and data analytics while outsource all the entrepreneurial cost to their workers, who perform physical tasks in the real world. The perfect epitome of those enterprises is the food-delivery sector.

Consequently, in the first section of the paper, I describe the law and economics of the gig economy through the lens of a new institutional approach. Thus, I present the original cyber-utopian dream of collaborative consumption based on reducing transaction costs and developing a peer-to-peer alternative organisational structure. Then, I illustrate its betrayal by venture capitalists and the consequent success of economies of scale and platform capitalism. In the second section, I formalise the strategic game that today rules the corporate governance of mainstream digital platforms and allows platform shareholders and consumers to free-ride at the expense of the gig workers. Accordingly, I offer my original contribution to the model. Namely, I propose that the external trigger of the pandemic unlocks an innovative way to frame the game capable of incorporating fairness and bolstering cooperation and the collective sharing of responsibilities between all the corporate

stakeholders. In the third section, I design a laboratory experiment to test if my assumption could work in real life. More specifically, I create an experimental market where hypothetical consumers, once correctly informed about how an exogenous shock makes it essential that hypothetical workers perform a specific task for the successful delivery of a good, can decide to punish platforms that pay unfair salaries. Therefore, they can assume their quota of responsibility and sustain socially responsible alternatives even if that represents a small cost for themselves. Finally, in the fourth and last section, I theorise a multi-level and multi-stakeholder social contract that takes corporate social responsibility as an extended model of governance for digital firms and that, informed by the capability approach, offers a viable alternative organisational model to extractive platforms. Implementing this theoretical proposal requires ex-post compliance to the hypothetical ex-ante agreement that should work as an equilibrium selection device for the gig economy after Covid.

The Law and Economics of the Gig Economy

According to the New Institutional Economics school of thought, which has been developing after Ronald Coase's foundational contribution (1937), the institution of the firm is justified by the necessity of reducing transaction costs. Therefore, in parallel with the mounting complexity of the economic system, the cost of negotiating and concluding separate contracts for each market exchange should have progressively been substituted by the bargaining of a single and complex hierarchical structure. In this way, the issues of uncertainty, bounded rationality and individual opportunism should at least be partially solved. As a matter of fact, the general purpose of transacting is maximising the net benefit provided to participants. And the firm, creating an internal market, facilitates this purpose by abating the ex-ante cost of drafting a contract and the ex-post cost of safeguarding it.

Consequently, within a single firm, one party takes command of the second party's assets and creates a unified governance structure that enables cooperative behaviours due to the repetition of interactions (Kreps 1990). In this sense, the firm respects Masahiko Aoki's definition of institutions as 'self-sustaining systems of shared beliefs about a salient way in which games are repeatedly played' (2001). Thus, the proper function of corporate law appears to be sustaining coordination and avoiding the birth of agency problems between the contractors (Kraakman et al. 2004). Indeed, heterogeneous and often conflicting interests, e.g., those of shareholders, investors, managers, employees, consumers and civil society, have to be accommodated within a single ownership model. And many solutions are possible for doing that (Hansmann 1988). Finally, the strategic game of the firm is also influenced by external institutions (Voigt 2019). Namely, the contextual framework of

international, national and local laws and the social customs of the community within which the transactions happen.

Nevertheless, Oliver Williamson already pointed out how vertical integration also creates the precondition of abuses of power of the other contractual parties on behalf of the firms' shareholders by giving them assets' ownership and a monopolistic position (1986). Indeed, when it is costly to list all specific rights in a given agreement, the theory pretends to be optimal to let the party that makes the most significant specific investment purchasing all the residual control rights in case of unforeseeable contingencies happening (Grossman & Hart 1986). But unfortunately, this strategy creates distortions that can prevent the weaker party from getting the ex-post return required to compensate her initial investment, determining the risks of labour exploitation and underinvestment (Hart & Moore 1990).

Accordingly, Elizabeth Anderson has extensively described how employers' authority, by ruling the lives of their employees and extracting the great majority of the surplus they create, often constitutes a sort of private government (2017). In her interpretation, after the cataclysm of the Industrial Revolution, economies of scale overwhelmed the economies of small proprietors characteristic of the pro-market ancient egalitarian dream forever. Consequently, a path of workers' deskilling, degradation of labour conditions, and structural domination started and never stopped. However, with the recent financial crisis, the inherent contradictions of the 'shareholders' primacy' business model finally exploded and claimed a different organisational structure. Therefore, for the first time in centuries, the role of market hierarchies is being questioned. While, at the same time, the technological revolution is changing the future of labour and consumption permanently.

In this context, what we now know as the 'gig economy' emerged in the U.S. in 2008, precisely born out of technological possibility and economic necessity (Schor & Cansoy 2019). More specifically, when the financial system crashed, a new idea came out, i.e., technology could solve the problems that capitalism historically has with work. On the one hand, digital platforms represented a new hybrid form of organisation that eroded the traditional boundaries between market and firms and between private and public (Sundararajan 2016). On the other hand, their characteristic algorithms could make bosses redundant and management obsolete. Thus, a peer-to-peer governance structure seemed to be possible (Schor 2020).

Originally named 'collaborative consumption' by Rachel Botsman and Roo Rogers (2010), the gig economy, whose two first epiphenomena were Airbnb and Uber, encompassed both no-profit and for-profit digital firms at its dawn. The only function those companies, characterised by trust-building and crowdsourced online reputation systems, recognised for themselves was to dis-

intermediate and re-intermediate demand and supply, acting as market-matching systems. Therefore, they affirmed that their mission was to enable the sharing of idle assets between peers, eliminating the traditional economy's transactional costs and increasing efficiency. At the same time, they also claimed to reduce carbon footprint and enhance the participants' wellbeing, satisfaction, and self-determination by ceding authority back to individuals and fostering new social relations (Schor 2016). Immediately, they captured many people, particularly the young, disillusioned after the global downturn and gave the start to a renewed cyber-utopian dream (Turner 2006).

However, this dream was soon betrayed, and economies of scale reaffirmed their power. Indeed, the entry of several venture capitalists in many companies' board directors determined the definitive for-profit sector triumph at the no-profit one expense. Consequently, digital platforms, born as a revolutionary alternative to mainstream economics, ended up amplifying the precedent authoritarian neoliberal system of firm governance. Thus, a transition to a task-based and piece-rated old-fashioned business model took place, and collaborative consumption became the gig economy. Since that moment, algorithms, instead of building trust, have been mainly used to monitor digital workers and create a downward competition between them (Pasquale 2015). Moreover, thanks to the lack of a proper national and international legal framework guaranteeing minimum labour rights, those workers have been transformed into members of a modern 'reserve army of labour,' multiplying the possibilities of power abuses (De Stefano 2016; Ravenelle 2017; Woodcock 2020). Therefore, what was born as a disruptive tentative of democratisation, revealed itself as the tipping point of neoliberalism and was rebaptised 'platform capitalism' (Srniceck 2017). Consequently, both platform owners and consumers started to instrumentalise digital workers' condition of vulnerability to extract a net benefit from the insecure tasks they are coerced to do to escape poverty (Bieber & Moggia 2020).

Nevertheless, even customers, who apparently benefit largely from lower prices and innovation, can be extremely damaged by this organisational structure in the medium-long period. Indeed, personal data has become the new currency of the Internet. And scholars have shown how any attempt to establish stricter protection rules has been seen as a senseless distortion of the market (Giraudo 2021). As a matter of fact, the only function digital lobbies and ordo-liberal thinkers[1] recognise to political and civil actors is to create a permissive environment where platforms can

[1] The classic argument of those thinkers is that this role is justified by the fact that digital platforms guarantee mutual betterment to all the stakeholders who always have the option of exit the business if dissatisfied. However, this ideological statement hides that are possible agreements between rational and autonomous agents that should not be accepted by a just society since some of them are in a structurally dominated bargaining position (Anderson 2015; Pettit 1997; Rogers 2016; Young 2011). In this sense, I will stress the superiority of distributive justice and bargaining theory for reaching explicit and fairer agreements in the following sections of the paper. Also, in a complex and adaptive system, the function of political and civil actors should be that of forcing digital platforms to internalise the entrepreneurial costs of their businesses and creating an enabling environment for sustainable firms to scale up (Ziegler et al. 2017).

exercise a rule-setting role. Accordingly, new information monopolies are developing undisturbed around digital firms that grow exponentially, exploiting their ability to extract and manage big data through algorithmic processes. Thus, in the gig economy's business model, the intermediaries appropriate all the positive externalities determined by reducing transaction costs and create colossal power concentrations (Marciano et al. 2020). Consequently, even consumers become 'prosumers' (Ritzer 2015), invisible workers who, while consuming, produce information that will be used to influence themselves by powerful platforms without being paid. Furthermore, thanks to the 'network effect,' the more data those platforms accumulate, the more they become monopolistic and can raise prices without innovating, harming customers a second time[2].

Reframing the Strategic Game Governing the Gig Economy in light of the Covid-19 Pandemic

Given the governance structure of the gig economy that I presented in the previous section, the pandemic can be read as an accelerator of the neoliberal path that has even raised new social justice issues. Indeed, adding the health-related risk, Covid-19 has worsened the precarious condition of gig workers that already suffered from algorithmic surveillance, misclassification and risk-shifting (Morbiato 2020). All the more so, many governments considered them between the only essential labourers who should have continued toiling in person during the difficult time of the lockdown[3]. However, despite their structural role in our contemporaneity, neither the platform shareholders nor the consumers have agreed to share part of the business responsibility and internalise some of the social cost. Quite the opposite, both have continued to act as free-riders and extract value from the unsafe tasks that gig workers perform.

Thus, following the formal model proposed by Giacomo Degli Antoni and Lorenzo Sacconi (2013), I formalise the strategic game governing the gig economy as a repeated exclusion game in which two strong players, i.e., the platform and the customer, decide alone how to divide the surplus without including the third dummy player, i.e., the gig worker. More specifically, the two strong stakeholders, for whom it is reasonable to cooperate forever, play a modified version of the trust game. In contrast, the weak stakeholder and the platform, for which it is individually reasonable to defect, play an asymmetric prisoner's dilemma. Consequently, if the consumer continues trusting the platform that behaves unfairly with the gig worker, they can go on sharing the surplus in all the periods of the game without including the latter in the distribution.

[2] Another risk that consumers suffer due to the monopolistic power of digital platforms and the absence of established laws and standards is that the deskilling of labour characteristic of the gig economy business model can determine worse if not dangerous services for themselves (Wang et al. 2020).

[3] Food-delivery sector workers are a clear example of this situation.

In the final section of the paper, I will present a multi-level and multi-stakeholder social contract for the governance of digital firms as a possible theoretical solution to stop this joint free-riding and favour the internalisation of the business risk from consumers and platform shareholders. However, the experimental evidence shows a problem of ex-post compliance that could arise with my proposal. Namely, to make stable and salient the fair division of surplus, we have to frame the game in such a way that consumers can accept to act responsibly and punish unfair platforms even if that means to pay a small cost on their own. Björn Bartling et al. (2014) obtained a result going in this direction. But they considered in their experiment an externality suffered by a third party and not an act of risk-outsourcing damaging an implicated stakeholder as a gig worker. On the contrary, in this second case, James Konow (2009) showed with his vignettes that the customers agree to punish unfair firms' behaviours only if they perceive themselves as not associated with surplus extraction and so their punishment as an act of goodwill. On the opposite, when they are asked to share the responsibility of the workers' conditions directly, they use to reason individualistically and think that this should only be a firm burden (Degli Antoni & Faillo 2020).

My original contribution to the model, which I apply to the specific field of the gig economy, is that I suppose that the external trigger of the pandemic can unlock an innovative way to frame the strategic game governing digital firms (Bacharach 2006). Namely, an evolution capable of bolstering cooperation and the collective sharing of responsibilities between all the stakeholders (Sacconi 2011a, 2011b). More specifically, following the proposals of John Geneakopolos et al. (1989) and Matthew Rabin (1993), I aim to refine that game and transform it into a psychological one to incorporate fairness and sustain a 'multilateral repentance strategy' of the customers. Accordingly, I foresee that the consumers, if informed that they are unconsciously but unfairly profiting from the exceptional exogenous situation and that redressing the abuse of power would be a little cost for themselves because more sustainable alternatives exist[4], will accept to punish unfair firms without boycotting the entire business. In this way, they will not cause the collapse of cooperation and allow fair platforms to scale and compete with mainstream ones (Lippert & Spagnolo 2010). That is possible because, given the essentiality of the specific investment made by the weak stakeholders during the lockdown period, customers can understand themselves as fundamental members of a joint social commitment for the digital workers' protection (Aoki 2010; Gilbert 2014).

As a matter of fact, the precondition of the two-tiers social contract's viability is that, at the post-constitutional level, the hypothetical contractors comply with what they have agreed upon during

[4] Indeed, many digital cooperatives have been born in the last years (Scholz 2016), and their organisational model, based on stakeholders' direct participation in the firms' governance, appears able to articulate consistently prosocial aims with monetary and non-monetary individual motives (Sacchetti & Tortia 2020).

the constitutional stage even in the presence of unforeseeable external contingencies (Sacconi 2011e). That's the reason why, following Thomas Nagel's reflection (1986), apart from impersonal justifications, a realistic normative account also requires agent-relative psychological motivations for explaining cooperation beyond the veil of ignorance. Consequently, I assume that the pandemic can frame the social contract that should rule the gig economy in such a way that, thanks to the Rawlsian sense of justice and the existence of conformist preferences (Rawls 1971), the individual utility function of the hypothetical contractors results enlarged, accommodating deontological prosocial commitments with selfish inclination. In this way, the fairer surplus distribution becomes salient and turns into the psychological Nash equilibrium of the strategic game governing the gig economy. To prove that, in the next section, I present an experimental design aimed to test if this extension of the model of Degli Antoni and Sacconi could work in the real world of the gig economy. The purpose is to build a hypothetical market with a reputation system[5] capable of putting consumers in the position of punishing digital companies that externalise their entrepreneurial costs on workers pre and post an exogenous shock treatment and an information treatment[6].

The Experimental Design of a Hypothetical Market Testing Consumers' Socially Responsible Preferences pre and post an Exogenous Shock Treatment and an Information Treatment

In this section of the paper, I present the design of a laboratory experiment aimed to test if hypothetical consumers, once correctly informed about how an external shock makes essential a specific task performed by hypothetical workers for the delivery of a good that before they could also purchase without that task, are effectively willing to accept their quota of responsibility for a fair division of market risks and burdens. As I said in the previous section, in the gig economy's case study, this condition is necessary for imagining ex-post compliance with the two-tiers social contract that I will present extensively in the next section, which should rule the business after the external trigger of the Covid-19 pandemic. On the contrary, without framing the firm strategic game in such a way, consumers and platform shareholders will continue free-riding on gig workers' precariousness and vulnerability and collaborating to worsen their quality of labour.

More specifically, three roles are randomly assigned between the experiment's participants: consumer, worker, platform. The game is repeated to produce conformist preferences and reputation feedback loops, and all the players are paid with a show-up payoff. Since we want to observe consumers' preferences for individualistic or socially responsible behaviours and platforms'

[5] Nicola Lettieri et al. (2019) have created a prototype of a digital application called *Gig Advisor* that works similarly. Digital workers rate the platforms for which they work, and the consumers can access these ratings before deciding if they want to use their services.
[6] At this stage, the experimental design does not consider a proper social contract treatment and it is only aimed to test those consumers' socially responsible preferences that would be a precondition for explaining ex-post compliance with a hypothetical agreement. However, it is also planned to introduce an actual contractarian constitutional treatment in the future.

reactions, we need a significant number of players. Indeed, for each session, we will have 3 consumers, 12 workers and 6 platforms. We need a double amount of workers for representing the reserve army of labour's effect, which is typical of the gig economy. Consequently, half of the workforce will not play until one of their colleagues refuse to perform a task. After, one of the temporary unemployed persons will replace the refuser till she does not refuse a task too.

Baseline

Platform: From the beginning and for the whole experiment, each platform is matched with a worker. Every round, it got assigned 4 tokens with a conversion rate in euros. Before playing, the platform has to buy a good x (graphically represented with a pizza offered by a restaurant) at the fixed price of 1 token for selling it to one of the consumers. However, it can sell the good only if its complementary worker performs a task. Consequently, from the second round, it makes an offer to the consumers for the pizza and decides the salary it will pay to its worker among two options. Salary A is higher and guarantees a fair surplus repartition. Namely, the platform pays the worker 4 tokens and sells the good at 5, so the final payoffs division is {4, 4, (4)}. Salary B is significantly lower and allows to make a lower price. Namely, the platform pays the worker 2 tokens and sells the good at 4 tokens, so the final payoffs division is {5, 5, (2)}. Thus, the platform and the consumer in this second scenario free-ride at the expense of the worker. In both cases, the platform pays the worker only if one of the consumers accepts the offer and the former successfully performs the task. During the first round, we will randomly divide platforms into two groups of three members, i.e., fair and unfair organisational models (A or B), and force their price choices. After the first round, they can change their strategy without paying any cost. Platforms are labelled and thus can be recognised for all the rounds of the experiment.

Worker: As I said, each worker is assigned to a platform from the beginning of the experiment[7]. She starts playing only when the latter buys the good for selling it to consumers. Consequently, she has two choices: to accept the task or to refuse it. If she refuses to perform the task, one of the reserve workers starts playing, and she doesn't work anymore until someone else does not refuse a task in turn. Of course, no one is paid for the round during which he or she decides not to work. The task is essential for the successful delivery of the good. The worker's payoff corresponds to its salary, and she

[7] For the purpose of the experiment, we are not interested in testing the workers' exit strategies and so their possibility of changing the platform for which they work. Moreover, as I previously pointed out, due to the structural dominated bargaining position of gig workers, exit options are less viable as they appear.

doesn't have any initial endowment of tokens. Graphically, the task is represented by a virtual avatar who carries the pizza from the platform to the consumer riding a bike. In order to portray the gig workers' atomisation, the workers cannot communicate between themselves and with the consumers for the whole experiment.

Consumer: Finally, each consumer is endowed with 9 tokens. In every round, they make their choices asynchronously, and so they are randomly divided. When it is her turn, everyone can decide if she wants to play and buy the good or not to play. Moreover, if she chooses to play, she can accept one of the platforms' offers or purchase the pizza autonomously from the virtual restaurant paying 5 tokens[8]. Consequently, in the baseline, consumers are indifferent between buying the pizza from a fair platform or boycotting the service and going to the restaurant. Through their screens, they both see the platforms' offers and how much each of them pays its worker. Once one offer is accepted, the other players can still see the price of the good and the salary paid, but they cannot click on it anymore. Platforms are always labelled. The final payoff of the consumers is 0 if they do not play, 9 minus the price paid for buying the good if they play (both if they buy it directly from the restaurant or through a platform).

Exogenous Shock Treatment: The Role of Specific Investments' Essentiality

In this treatment, due to an exogenous shock, the possibility of buying the good without using a platform is no longer open to consumers. Therefore, the platforms become essential for purchasing the pizza, and, consequently, the same is valid for the specific investments made by the workers. All the other things remain the same. However, this situation is not explicated to the participants who only know that an external event has made impossible to buy the pizza from the restaurant.

Information Treatment: Refining the Strategic Game

In this treatment, the customers are explicitly informed about the workers' essentiality after the exogenous shock. Moreover, even if platforms are labelled and salaries have always been communicated from the beginning, it is also made explicit that option B of surplus division is unfair and that they are participating in the extraction of value from workers put in competition with each other. Finally, it is made explicit that option A would cost them only 1 token more. All the other things remain the same.

[8] The much higher monetary price for experimental customers compared to platforms also represent real non-monetary costs as the energy and time a true consumer spends going to a restaurant by herself and buying a pizza.

Hypothesis

a) After some repetitions of the baseline, I expect that consumers will end up choosing only between buying the good from the platforms that offer the lower prices or purchasing it by themselves. Indeed, existing the possibility of boycotting the service and being monetary indifferent, I expect that platforms' socially responsible behaviours will not become salient. Certainly, most consumers will not consider themselves responsible for the workers' conditions and choose moved only by individualistic monetary preferences[9]. In contrast, a small minority will opt for the boycotting strategy and purchase the good alone[10]. Fair platforms will not scale and become a viable alternative.

b) In the baseline, I imagine the average worker will not refuse the task. Indeed, whatever her salary is, she risks being substituted and earning 0. On the other hand, I also think the average platform will try to abuse its power.

c) After some repetitions of the external shock treatment, I expect some consumers will start accepting a quota of responsibility for sharing the cost of the service since the boycotting strategy is not open anymore. More specifically, I imagine they will start rewarding fair platforms, that will contemporaneously begin to increase, and allow them to scale and compete with unfair ones. However, I still think that, on average, unfair offers will be accepted as first.

d) After some repetitions of the information treatment, thanks to the reputation effect and the gap-filling of the information asymmetry, I expect the majority of the customers will opt for the fairer surplus division, which will become the salient strategy for platforms. Indeed, extractive ones, perceiving the risk of punishment, will be forced to change their organisational model for surviving. If this situation occurs, I will also demonstrate the fundamental role of public institutions pretending accountability by digital firms to reframe their respective strategic games.

e) In both the treatments, I expect that the workers, even if essential, will continue accepting the task proposed to them whatever salary they receive due to the presence of the reserve army of labour and their atomised condition.

A Two-Tier Social Contract as an Extended Model of Governance for Socially Responsible Digital Platforms

Finally, following the reflection started with the previous sections, I now present my normative proposal to face the risk of structural domination and power abuses that the gig economy's stakeholders, in the broader sense of the word, suffer. Following Sacconi (2011c), what is necessary

[9] As we have seen, experimental evidence goes precisely in this direction (Degli Antoni & Faillo 2020).
[10] Again, here I follow the model proposed by Degli Antoni and Sacconi (2013).

is a multi-level and multi-stakeholder social contract for the governance of digital firms that guarantee to all the contractors certain fundamental and inalienable entitlements. More specifically, an agreement designed to regulate at the constitutional level, i.e. ex-ante, the impartial distribution of property rights and resources. While offering to all of them the capability to convert them into valuable functionings at the post-constitutional level, i.e., ex-post. In this sense, corporate social responsibility is interpreted as an extended model of governance based on the extension of fiduciary duties towards all the firm stakeholders. That's due to the fact that the hypothetical digital company's strategic game is framed in a way that incorporates fairness and a joint commitment to share responsibilities.

To develop this proposal, I elaborate on the two-stage social contract model promoted by Thomas Donaldson and Thomas Dunfee (1995, 1999) and formalised by Magali Fia and Sacconi (2018). Accordingly, the macro and the micro tiers of the hypothetical agreement are interpreted through the lens of James Buchanan's notion of constitutional and post-constitutional contracts (1975) and David Gauthier's distinction between ex-ante and ex-post agreements (1986). Furthermore, the Senian capability approach is taken as the informational basis of the whole theoretical building. Accordingly, capabilities are considered in their double nature of basic entitlements (Nussbaum 2003) and personal skills (Sen 2009), while digital firms act as external conversion factors (Chiappero et al. 2007).

More specifically, the role of the macro constitutional stage I imagine is to make explicit a minimum set of entitlements on which the hypothetical contractors, deliberating together behind a 'veil of ignorance,' can ex-ante agree and consider as the basic threshold of needs characteristic of a dignified human existence (Sacconi 2011d). Furthermore, in my proposal, the constitutional social contract is also characterised by multiple dimensions. At least, we can recognise an upper-dimension that is understandable as the Rawlsian traditional basic structure of society and a lower-dimension characterised by the institutions that enlarge this basic structure, e.g. digital firms. Following this repartition, political institutions ranging from the supranational to the municipal[11] level must guarantee the entitlements to those recognised as the basic human capabilities. Whereas, the social contract of the firm, entering the basic structure, should specify those entitlements and adapting them to the local context following the principle of 'subsidiarity' (Burchardt & Vizard 2011; Carozza 2003; González-Cantón et al. 2019). Concretely speaking, the selection of the relevant dimensions to be protected by hypothetical digital firms should thus represent a minimum core of fundamental social

[11] A concrete example of the constitutional entrenchment of a city in relation to the field of digital labour is *the Charter of Fundamental Rights of the Digital Labour in the Urban Context*, promulgated by the municipality of Bologna in 2018 (Lombardo 2019).

and economic rights contained in multi-level legal texts with constitutional inspiration[12]. Indeed, these charters, acting as proxies of an original impartial agreement found via 'overlapping consensus' and interpreted through the lens of the capability approach, provide the multidimensional framework of 'hypernorms' that second-level institutions have the primary obligation to translate into practice at the firm-stage.

On the contrary, the purpose of the post-constitutional micro-level of the contract is to answer the question of what happens after this first threshold. Thus, it poses the problem of ex-post compliance that I tried to solve in the previous sections. Therefore, the component of the Janus-faced notion of capability involved at this stage is the skill dimension[13], which is fundamental for converting basic entitlements into actual functionings. In the real world, monopolistic platforms to which residual control rights are assigned are likely to defect from the hypothetical constitutional agreement and abuse of their powers when unforeseeable external circumstances happen. Therefore, we have to imagine a social contract with the necessary motivational force to convince all the contractors to comply ex-post with what they agreed upon at the macro-level.

Apart from the prosocial psychological reasons for customers already extensively discussed, I also want to mention three non-monetary individualistic motives that can push the contractors to bargain a fairer surplus division. First, the structural role that the platform economy is taking in our daily lives. Indeed, as the recent transnational strike movements shows, gig workers are becoming more aware of their embeddedness in the market and start refusing the externalisation of the business risk of which they are victims. Second, the essentiality of some of them during the Covid-19 pandemic, as the food-delivery sector ones, gives these gig-workers a non-replaceable role in our society and the force for demanding better working conditions. Third, the 'taskification' of labour that the gig economy determines produces negative externalities for the whole community, accelerating the 'precarisation' of the employment relationship and acting as the laboratory for the future of work and society. Thus, fighting the race to the bottom of working conditions and fixing minimum standards for gig employment can be seen as the first step of a broader collective effort to

[12] Moving from the international to the urban level, the charters I have considered for this paper are the *Declaration of Philadelphia (1944)*, the *Declaration on Fundamental Principles and Rights at Work (1998)*, the *Declaration on Social Justice for a Fair Globalization (2008)* and the *Centenary Declaration for the Future of Work (2019)* of the International Labour Organization (ILO), the *International Covenant on Economic, Social and Cultural Rights* 1966), the *European Social Charter (Revised)* (1996), the *Charter of Fundamental Rights of the European Union* (2000), the *European Pillar of Social Rights* (2017), the *Constitution of the Italian Republic* (1945), and the *Charter of Fundamental Rights of the Digital Labour in the Urban Context* (2018).

[13] The skill dimension must be interpreted both referring to internal and external conversion factors. Indeed, on the one side, pursuing a flourishing life is an open-ended process that requires individual agency and that people can achieve step by step with their actions and behaviours. But, on the other side, the transformation of capabilities into actual functionings necessitates an enabling and fair social structure based on a shared division of responsibilities between the stakeholders (Mackenzie 2014; Nussbaum 2011; Young 2011). Undoubtedly, the capability approach is the most suited philosophical theory for encompassing the structure-agency relationship in a common normative framework due to its ethical and methodological individualism and its relational ontology (Longshore Smith and Seward 2009).

adapt the twentieth-century workers' rights culture's values to the necessities posed by the digital revolution of labour.

Therefore, due to the rising importance of human capital during the digital information era and especially after the pandemic, the ideal of a stakeholders' society is regaining its momentum as a possible solution to the problem of reaching an equilibrium for the governance structure of digital firms (Aoki 2011). Indeed, on the one hand, it is becoming accepted that business decisions have ethical impacts on human beings and generate shared responsibility. While, on the other hand, stakeholder management has started to be considered good management also from a purely monetary perspective because, in the long run, it appears to maximise profit (Freeman et al. 2011). Accordingly, corporate social responsibility as an extended governance model seems to encompass, particularly for digital firms, the claim of equality with liberty and efficiency, preserving both the sustainability and profitability of the businesses. That's because, in this specific case study, the 'team production' paradigm is more suited than the 'principal-agent' management model since different but all fundamental specific investments must be protected at the same time (Blair & Stout 2011). As a matter of fact, many groups, apart from the firm shareholders, are potential residual claimants and threaten underinvestment in a peer-to-peer economy. Consequently, the pandemic, acting as the external trigger of a Schumpeterian 'creative destruction' (Schumpeter 1942), has made particularly evident both the necessity of protecting all these groups and the fact that achieving a true and prosperous 'sharing economy' requires the transformation of commercial platforms into democratic entities.

Conclusion

To sum up, in the paper, I presented from a law and economics perspective the governance structure of labour based lean platforms. Accordingly, I implemented the game-theoretical model developed by Degli Antoni and Sacconi (2013) to formalise the abuses of power that platform shareholders and consumers perpetrate against gig workers shifting on them all the entrepreneurial risk when ex-ante unforeseeable circumstances happen ex-post. In this way, they betray the cyber-utopian dream that determined the business's original names of collaborative consumption and sharing economy. However, as the pandemic has represented the tipping-point of this exploitative and extractive trend, it also offers the possibility of changing the distribution of profits and burdens and make the word 'sharing' more than a clever marketing expedient (Kalamar 2013). Consequently, I presented a theoretical proposal based on a two-stage social contract to create an alternative governance structure managed fairly by all the stakeholders together. I chose capabilities as the informational basis of the hypothetical agreement that rules this structure for the complex and sufficiently vague character that

Enrica Chiappero-Martinetti (2008) recognised to the Senian approach. Indeed, precisely for these features, it seems suited for evaluating a business sector characterised by a plurality of platforms and participants with different histories, objectives, and initial assets.

As a matter of fact, in my opinion, the purpose of a normative theory designed to work as the informational basis of a contractarian model of corporate governance for the gig economy should be twofold. On the one hand, it must guarantee minimum and equal protection standards to all the stakeholders to avoid the exploitative outcomes reached by certain platforms (Aloisi & De Stefano 2019). But, on the other hand, it should prevent chaining down the innovative force of a business founded on individual autonomy and self-entrepreneurship with generalised top-down regulation and bans. As a liberal egalitarian theory that, following the Rawlsian path, tries to satisfy both deontological and consequentialist concerns, I think the capability approach perfectly intercepts this double necessity thanks to the Janus-faced nature of the notion of capability itself.

Finally, the movement of 'platform cooperativism' (Scholz 2017) represents in my interpretation the real-life experience more consistent with this theoretical proposal. Indeed, as I already said in note 4, the organisational model of a co-op, based on stakeholders' direct participation in the firms' governance, appears able to articulate consistently prosocial aims with monetary and non-monetary individual motives (Sacchetti & Tortia 2020). However, digital cooperatives typically find it difficult to scale and compete with mainstream platforms that, outsourcing entrepreneurial costs on workers, can offer lower prices for consumers. Therefore, I illustrated why prosocial deontological commitments are required from customers in order to achieve ex-post compliance with my theoretical proposal. Consequently, starting from the strategic game with material payoffs typical of the mainstream platforms' governance structure, I framed a psychological game capable of incorporating fairness and sustaining a multilateral repentance strategy that can allow co-ops to scale. I leave to the future the actual implementation of the experimental design that should confirm the viability of my proposal.

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