

Platform economy as a new form of capitalism: a Régulationist research programme

Matthieu Montalban, Vincent Frigant and Bernard Jullien

The terms ‘platform economy’ or ‘sharing economy’ have become widespread with the development of digital platforms like Uber. This economy is transforming capitalism and raising important questions about its nature. Is it a new process of embeddedness or is it the next step for deregulation following the crisis of the financialised regime of accumulation (RA)? Is it a possible new Growth Regime? Using the approach of the French *Régulation* school of thought, we describe the nature and transformations of the form of competition inherent in platforms. Although this may favour some forms of re-embeddedness, we show that it will accelerate some of the trends and characteristics of the institutional forms of the financialised RA and that it is an endogenous product of its crisis. This raises further questions and uncertainties related to the ability of platforms to generate stable long run growth due to the dysfunctionality of the mode of *régulation* and the conflicts it could generate.

Keywords: Platform economy, Financialisation, Mode of *régulation*, Dis-embeddedness, Regime of accumulation

JEL classifications: B52, O33, P10

1. Introduction

The terms ‘sharing economy’, ‘collaborative economy’ or ‘platform economy’ have spread quickly since the creation of several well-known digital platforms such as Airbnb, Uber, TaskRabbit etc. that contest and ‘disrupt’ the incumbent firms of regulated sectors. The digitalisation of data and the diffusion of smartphones are factors which have contributed to creating the conditions for developing new services through applications that match users or professionals and consumers, and allow them to ‘share’ (freely or not) the use of assets. The aim of this paper was to study the impact on the current capitalist system of the platform economy and, more specifically, the ‘platformisation’ of the economy, defined as the process of resource exchange via the use of centralised digital tools. Most of the proponents of this platform economy evoke a technological and social revolution that unreservedly promotes a radically new

Manuscript received 30 September 2017; final version received 18 July 2018.

Address for correspondence: GREThA UMR 5113, University of Bordeaux, Bordeaux, France; email: matthieu.montalban@u-bordeaux.fr
GREThA UMR 5113, University of Bordeaux.

© The Author(s) 2019. Published by Oxford University Press on behalf of the Cambridge Political Economy Society.
All rights reserved.

society. This was already the case at the end of the 1990s when, just before the bursting of the dot-com bubble, it was thought that the Internet's 'new economy' model would reduce inventories, increase flexibility and transactions and subsequently accelerate growth and reduce economic fluctuations. This, however, turned out to be a myth (Gadrey, 2000).

Nonetheless, we consider it necessary to take into account the 'revolution hypothesis' and its performative implications. A lesson from history is that industrial revolution is related to dis-embeddedness or re-embeddedness processes (Polanyi, 1944). In the polanyian sense, the economy is always embedded in social and institutional structures. Capitalism and economic theory, however, are producing a process of dis-embeddedness. It is the performative myth of a pure, self-regulating and autonomous market free from any form of other social relations. As a myth, it cannot become reality because markets need institutions and it also generates political counter-reactions (re-embeddedness). But it is a myth that is gaining significant traction. Dis-embeddedness can thus be more clearly understood as the hegemony and hierarchical dominance of market institutions such as private property, competition and the law of supply and demand over the other social relations which are subsequently subordinated, leading to a growing commodification of activities (Le Velly, 2008). In this research, we study a form of dis-embeddedness that is occurring through the rise of digital market platforms and the myth surrounding the platform economy.

As the discourse of free market studied by Polanyi, the 'platform economy' has also apologetic discourses around it. On the one hand, it is sometimes presented in the popular press as a new 'non-capitalist' or even 'communist' mode of production because it allows for the development of common-pool resources, sharing, collaboration and the 'green' economy (Mason, 2015). On the other hand, it is understood to represent a new form of capitalism, called 'uberisation' (Morozov, 2013). Interestingly, these two discourses mirror each other. One is about a positive new 'great transformation' in which the re-embeddedness process facilitates non-market transactions and social links. The other discourse, however, describes an enthusiastic dis-embeddedness through the development of market transactions, commodification and private self-regulation (Polanyi, 1944). In other words, we have one discourse in which capitalism is bypassed and another that describes the platform economy as a new form or stage of neoliberal capitalism with significant development of markets and competition.

French Régulation Theory (Boyer, 2015) is particularly relevant to question the novelty and functionality of platform economy as a new phase of capitalism and as a process of re- or dis-embeddedness. It involves studying the historical stages/transformations and mechanisms of the endometabolic/endogenous structural crisis of capitalism through the concepts of the regime of accumulation (RA) and mode of *régulation*¹ (MR) and by analysing the institutional complementarity and hierarchy of the five main institutional forms² (IF) and the role of political conflicts and compromises between social classes. Using this well-known theoretical framework, this paper shows that while the 'platform economy' may allow potentially interesting forms of re-embeddedness to emerge, it is in fact predominantly a large but dysfunctional

¹ Régulation is understood as all forms of rules, norms or mechanisms insuring the coordination of agents and the reproduction of prevailing capitalist social relations. It must be distinguished from regulation, which is only one form of *régulation*.

² Monetary and financial regime, wage-labour nexus, form of competition, form of the State and international regime.

endogenous dis-embeddedness transformation linked to the crisis of the financialised RA. The platform economy is growing particularly quickly in the service sector and is not yet present throughout the economy. Nonetheless, the diffusion of platforms may impact the MR by extending commodification, thus justifying the use of the *régulationist* framework to interpret this systemic transformation.

The remainder of this paper is organised as follows. In Section 2, we analyse the main impact of the platform economy on forms of competition by focusing on how it transforms markets. In Section 3, we explore how it is related to the financialisation process and monetary regime. In Section 4, we show how the platform economy accelerates the changes in the wage–labour nexus. In Section 5, we study how States and policies are complementary to this process. Finally, we conclude by showing the ongoing contradictions of this accumulation regime and MR.

2. How the platform economy disrupts competition

The platform economy is a booming with new apps created every day to offer services as diverse as delivering food, offering or selling personal services (teaching, dog walking etc.), renting, giving or selling idle assets (boat, car etc.) or funding projects.

To embrace this diversity, we define the platform economy as economic activities where tangible or intangible resources are exchanged between providers and users by the way of centralised electronic platforms. Whatever the types of assets exchanged or the way in which they are exchanged, this broad definition underlines two key points: a platform is a tool to match users and providers and it is also a set of rules defining the creation, the exchange and the closure of the dyadic relationship. These two dimensions are embedded in two instrumental tools. The first dimension is related to the software and hardware infrastructure that make up the digital infrastructure, including computers, data centres, smartphones, GPS and software packages and, in particular, predictive analytics tools (Siegel, 2016). Each platform is an algorithm-enabled cyberplace (Zysman and Kenney, 2016) and the exchange is organised by an algorithm which collects and analyses data about supply and demand and, first and foremost, about users and providers. The second dimension is a governance issue. Each platform constitutes a private governance structure (Boudreau and Haghiu, 2009). It sets out and enforces its own rules regarding the membership of the platform, the monitoring process and the system of reward. In this respect, the platform economy is a form of *régulation*.

Three interconnected dynamic processes related to platform economy need to be underlined. The first process relates to the logic of *extension of the market area*. Platforms commodify relationships which were previously outside the economic space (Dobusch, 2017; Schor, 2017). The strength of digital infrastructure is to make it so convenient to find a car for a hitchhiker or a pet-sitter for family holidays that people substitute their traditional solutions (friends, community, family etc.) with apps. While some of these exchanges made use of the ‘market’ in the past, the platform economy scales-up the commodification of these relationships. On the other hand, it is clear that platforms can be used to build non-market exchanges. This point needs to be connected with *the second dynamic which appears inside the platform economy itself*. Apart from rivalry between profit-seeking platforms, pure sharing (non-pecuniary) platforms (Bostman, 2013) are in competition with pecuniary platforms which try to capture a

growing part of the platform exchanges using the siren-like appeal of earning money. Why give away the armchair inherited from your great-uncle, when it is possible to sell it on eBay? This competition process incentivises the commodification of relationships. While some scholars stress that the growth of sharing platforms is based on the diffusion of ideology and the appeal of the social and solidarity economy (TRANSIT, 2015), no concrete evidence exists to clarify which type of platform is growing the fastest. The net effect between substitution and creation thus needs to be studied, but incentives are strong for a dis-embeddedness process. *The third dynamic is between incumbent firms and newcomers.* The platforms shape competition and challenge incumbent firms through ‘disruption’. Every type of good and asset may be involved (labour, finance, capital goods) for different purposes. In addition, incumbent firms do not only face competition from start-ups but also from the gift-economy offering services for free that were previously provided by markets. While the cases of Uber or AirBnB are probably the most commonly mentioned in the media, a lot of other industries are facing the entry of platforms firms seeking to disrupt incumbents. The platform economy thus poses a genuine threat to the ‘old’ economy.

This disruptive ambition of platform firms is directly linked to their digital nature (Zysman and Kenney, 2016). Owning the residual right to exclude unreliable members, platforms reduce both adverse selection and moral hazard issues. At the same time, the collapse of IT operating costs and the design of new interfaces afford a technological advantage to the new generation of platforms by reducing the need for tacit coordination and technological interdependency which are two classical limits of outsourcing (Benkler, 2004). Along with this, platforms are network technologies generating network economies and increasing returns to adoption (Arthur, 1989). More precisely, platforms are two-sided networks: each side of the platform represents a different type of user, and a platform firm incurs costs in serving each user but can also, depending on its business model, earn revenues from each group (Eisemann, 2005). The aim of a platform is to generate a catalytic reaction based on rapid and massive adoption of its services from users on both sides (Evans, 2003). The challenge is to attract a large number of providers and users contributing to the platform exchanges and, since the seminal book of Shapiro and Varian (1998), network literature, has proposed specific strategies such as pricing and subsidies (Hagi, 2006), and the interconnection of complementary services (Suarez and Cusumano, 2003). Platforms also adopt more classical solutions, however, such as employing a workforce located in low cost countries. Platforms can also mobilise the ‘crowd’, either on both sides as it is often the case for a C2C platform (location of idle-assets, services exchanges etc.) or only on one side as it is the case for B2C or C2B platforms (like jobbing platforms, De Groen and Maselli, 2016). For these reasons, platform firms have a competitive advantage over classical firms operating in similar activities which produce their services or goods using their own resources. Among the different types of platforms, those which propose services using idle resources belonging to the crowd are the most disrupting. They activate resources which are indeed quasi-infinite, with very little investment and without needing to finance capital goods. Because their owners consider renting as complementary revenue, they can offer resources at very competitive prices. In addition, the reverse auction principle at the core of their activity contributes to a deflationist configuration in the rivalry between platforms themselves and between providers belonging to the same platform on a global scale. For other types of

platforms, however, the key to their competitive advantage lies with their ability to enlarge the crowd, to mobilise digital infrastructure and to inter-connect complementary services. The disruptive power of Amazon, for example, is based on its huge diversity of items, its individualised recommendations based on its algorithm and its high performance delivery system. Traditional book or music shops thus struggle to survive even in countries like France where the price of books is State-regulated.

Another source of growth for platforms that is further developed in Section 5 is their ability to exploit gaps in the regulation framework due to the novelty of offered services and this can generate unfair competition. Platforms that rent assets are good examples. Whereas professional hotels must comply with security norms or professional standards, a household renting its apartment via a platform does not incur such compliance costs. The supposed higher ‘efficiency’ of such platform firms is thus a consequence of their ability to avoid regulations and they win market share from ‘conservative over-protected firms’ as a result of their imagination and their ability to design digital infrastructure. Clearly, the platform economy is growing in particular in the service sector and it has not disrupted mainstream economic activities. However, as it expands commodification and promotes specific competitive processes, it is influencing the form of competition in addition to other IF.

3. A monetary and financial regime: start-ups, VC and NASDAQ as pre-conditions for the fund raising strategy of platforms

Although the platform economy ‘disrupts’ most of the IFs and previous MR of financial capitalism, we argue that, rather than representing a new RA, this transformation is endogenous to the financialised-neoliberal RA. It is based on a very similar institutional hierarchy, it is functional to the monetary and financial regime and it accelerates previous trends. The transformation process from a financialised RA to a platform economy will be described (Figure A1), and we argue that the platform economy favours significant dis-embeddedness and the commodification process.

3.1 *Financialisation as an enabling condition for the development of a platform economy*

Financial liberalisation and monetary policy focused on price stability and the stability of the banking system have generated bubbles fuelled by credit and savings from pension systems managed by institutional investors (Auvray *et al.*, 2016). This pro-bubble regime has been a condition for the development of start-ups.

Most digital platform companies are focused on the network economy and increasing returns to adoption (Arthur, 1989). Typically, they are in ‘*first mover takes all*’ activities. As firms with a ‘new economy business model’ (Lazonick, 2009), they burn cash quickly at the start when they are developing their innovations and apps with no or little sales and their activities are funded by business angels or venture capitalists (VC). Their growth expectations are based on the assumption of attracting a sufficient mass of users to occupy a monopoly position and then monetise their business. VC funds are looking for ‘unicorn’ companies, which will become the new GAFAs whose very high capital gains will compensate for all the other risky investments most of which are not profitable.

This corresponds to the emergence of a new financial convention. The global growth of inequalities (Piketty, 2013) creates surplus savings on a global scale and a significant

part of these are attracted to Silicon Valley's eco-system based on the proximity of venture capital and the new economy (Lazonick, 2009). The few success stories of winning start-ups that become unicorns are used to boost the system while the numerous failures are not mentioned. Wealthy individuals, in particular, including celebrities, also tend to believe that they are part of a movement to change the world. The personalisation of enterprise—and its media coverage—by a small number of charismatic bosses such as Elon Musk and Mark Zuckerberg reinforces the seductive power of their own firms and, indirectly, of all digital companies. The potentially high returns on investments are also attractive because mature industries cannot offer such promising returns.

As a consequence of the dominant business model, the platform economy is therefore largely functional to the financialised RA.VC development is largely the result of development of financialisation through a combination of the pension fund system, the stronger legal protection afforded to investors and 'new' lightly regulated stock markets such as NASDAQ or AIM offering a source of funding and an exit possibility for young innovative enterprises (Cumming, 2008; Bédu and Montalban, 2014). It has been shown that there are institutional complementarities between the post-1970 intellectual property rights regime and the growing financial markets in software and biotech industries (Coriat and Orsi, 2003; Useche, 2014), as patents and intangible assets are used as a signal for investors to fund new ventures. While patents are not the core of the platform economy, its business model is clearly based on intangible assets such as highly qualified human capital, knowledge, control of data and digital networks. Although these firms accumulate losses in the short term, the existence of such assets creates an expectation of future monopoly rents for the winner or for the first mover as a result of network economies. However, the aim of the founders of those platforms is not necessary to create value and profits, but to increase their market capitalisation to sell their shares to larger companies who will exploit the data and their network to create value.

Platforms thus contribute to help other firms, particularly large established firms, to increase their flexibility and to lower their sourcing and production costs. B2B platforms offer access to resources such as labour and finance which can be useful for large firms wanting to focus on their core competences (Prahalad and Hamel, 1990), and to promote open innovation (Chesbrough, 2003) in order to be lean, focused and agile. The heterodox economics literature has explained that this new tryptic is partly due to financialisation and shareholder value management, which reduce the productive investment of listed companies. 'Old economy' and mature companies are obliged to adopt practices of 'downsize and distribute' due to shareholder value management (Lazonick and O'Sullivan, 2000; Auvray *et al.*, 2016), by increasing share repurchases, dividends and reducing investments. Firms may also choose to crowdsource but they often underestimate the organisational difficulties involved (Ford *et al.*, 2015). Crowdsourcing generally implies low qualified tasks while collaborative platforms are more likely to develop activities involving engineering jobs and supports activities such as marketing and design (Schmidt and Jettinghoff, 2016). It is worth point out explicitly that such start-ups and innovative businesses find it relatively easy to raise funds and burn cash without suffering from too much short-term pressures to extract profits by paying dividends and engaging in buybacks. As their governance is entrepreneurial and VCs play an important role as both advisors and long-term investor, these

start-ups can control their business model and raise money from the stock market to sustain their rapid growth strategy. To a certain extent, the platform economy complements the old economy by taking risks, innovating and accessing capital to develop activities that will prove useful to mature industries. In other words, platforms allow established firms who are operating under the pressure of finance, to achieve their objectives. From a financial perspective, the platform economy increases the liquidity of markets to the extent that it contributes to a marketisation of the production process of large companies who can outsource with arm's length relationships and focus on core competencies.

Outsourcing to start-ups is not an entirely new process, however, and it is already a characteristic of the financialised RA in some industries. *Big Pharma* companies, for example, have outsourced a large part of preclinical research to biotech companies, and some have created VC funds to fund biotech start-ups (Montalban and Sakinç, 2013). This form of 'start-up complex' for large firms is favoured by financialisation. Large firms focus on their core business in order to maximise shareholder value and biotech or ICT start-ups are able to raise funds on stock markets even if they do not make any profit.

3.2 Platformisation of the monetary and financial regime: still uncertain

Because of the feedback effect, innovations from digital platforms and start-ups may transform monetary and financial regimes. Cryptocurrencies such as Bitcoin or Ether that are based on blockchain technology compete with official currencies such as US dollars or euros for transactions. Blockchain technology is a decentralised, transparent and immutable ledger where all the computers in the network automatically check and secure all of the transactions (Wright and De Filippi, 2015). It has been invented to disrupt 'trusted third parties' such as banks, central banks or notary publics. Some start-ups have begun to raise money via Initial Coin Offerings (ICO)³ (Conley, 2017). These currencies are created by start-ups without regulation and without the need for a banking license. They are connected the blockchain and exchanged on trading platforms. Central banks are not lenders of last resort for these platforms which alters the traditional legal monetary circuit. Similarly Paypal, the digital platform of online and mobile payment system, is now widely used for online transactions and it is thus competing with traditional banks as a leading 'Fintech' company. Crowdfunding platforms such as Kickstarter and KissKissBankBank raise money to fund the projects of artists, creators, inventors, scientists in return for gifts that are given as rewards to the backers. This mode of financing is different from a VC project, as it is not only committed to funding capitalist ventures, but addresses 'social' projects also. A large number of projects funded by crowdfunding in the seed stage, however, are subsequently financed by VC. Crowdfunding is thus not likely to represent the end of the quest of shareholder value and it thus appears more as a complementary mode of financing, alongside the traditional modes of financing capital which include VC, credit, bonds or stock markets. In addition, while cryptocurrencies have grown significantly in terms of number of existing cryptocurrencies and number of transactions using these as unit of account, reserve money and/or speculative asset, they are not used in current daily transactions.

³ ICOs are a form of fund raising: start-ups issue cryptocurrency tokens instead of stocks in exchange for 'real' fiat money. The token gives the owner the right to buy future products or services of the company or it can be used as a speculative asset such as a stock.

They can thus be considered as an alternative financial asset to money. It is, nonetheless, possible that the transformations brought on by these innovations will go further, but this will depend on the reaction of Central Banks, the extent to which non-geek and non-speculating households overcome worries about legal uncertainties (Enyi and Le, 2017), and the reactions of private banks. States and Central Banks have sovereign and fiscal interests to maintain state money and one easy way for government to ensure that its money is used is to oblige individuals and firms to pay their taxes with it. Private banks are seeking ways to seize the opportunities offered by the blockchain and thus avoid the disruption of their oligopoly positions. They also hope to secure part of the blockchain transactions and reduce certain administrative problems (Le Monde, 15 November 2016; Les Echos 7 February 2017). Blockchain technology can reduce transaction costs in settlements and digital platforms of cryptocurrencies can disrupt the functioning of centralised financial markets that are traditionally closed. Blockchain technology could also be used to secure transactions of assets through the use of a decentralised record of all the previous transactions. Finally, digital platforms of cryptocurrencies may create some decentralised common global markets place for trading by enlarging the globalisation of finance (Financial Review, 17 June 2017).

The platform economy has thus potentially deep connections with financialisation. It also accelerates previous neoliberal trends towards the flexibilisation on the wage–labour nexus and outsourcing.

4. Continuous flexibilisation and individualisation of the wage–labour nexus

The ‘new’ wage–labour nexus institutionalised by platform capitalism and, in particular, the ‘uberisation of labour’, is not as recent as it would appear. It is a more radical version of certain existing processes. After World War II, Fordism was characterised by an MR in which the wage–labour nexus was the dominant IF. This favoured integrated firm and the growth of wages sustained the growth of mass consumption. This mode of development was underpinned by both the rise of productivity and wage-led demand, and an international regime that was only moderately opened. The crisis of Fordism occurred as a result of a combination of factors. An inflationary-monopolist MR emerged as productivity was slowing (Bergeaud *et al.*, 2016), due to growing conflicts against Taylorism. There were significant changes in demand with greater expectation of variety as the population became increasingly equipped with cars and as trade became increasingly liberalised (Boyer, 2015). To address this crisis, the Fordist compromise was broken and capital imposed neoliberal policies to reduce inflation through monetarism, financialisation and globalisation. The end of the Fordist compromise was facilitated by the rise of unemployment and de-industrialisation (Streeck, 2011), but it has exacerbated the slowdown of productivity growth. In parallel, globalisation and financialisation facilitated flexibilisation and individualisation of the wage–labour nexus.

At the same time, the growing importance of large institutional investors transformed the dominant form of management by imposing ‘shareholder value management’ on large listed companies (Lazonick and O’Sullivan, 2000). To increase their return on equity, financialised companies outsourced a growing share of their production to suppliers and distributed stock options and very high pay to CEOs to ensure

their subordination to the dominant objective of increasing the company share price. These new practices accelerated the end of the historical compromise between top management and unions and replaced it with a compromise between shareholders and managers pitted against unions and low-skilled employees. As a result, from the mid-1980s to the 2007 crisis, the adjusted share of wages declined in most OECD countries although profit rates and the share of dividends in profits increased (Husson, 2010). In addition, reinvestment of profits declined, thus fuelling the growth of the finance sector and bubbles. Other consequences include the spectacular growth of inequalities (Piketty, 2013), a dual labour market and higher poverty rates in the neoliberal MR.

4.1 Digitalisation of labour, uberisation and platform economy as the next stage of an on-going process of individualisation and flexibilisation of the labour force

The development of the platform economy is transforming the wage-labour nexus, capital/labour relationships and the business models of firms. It involves the development of self-employment and freelancers in place of regular wage-earners/employees. This may involve highly skilled freelancers for platforms such as Upwork or low-skilled entrepreneurs for platforms such as Uber or Deliveroo. There is no clear distinction between professional labour such as full-time Uber drivers or delivery men and 'occasional' labour such as drivers who work from time to time for platforms such as Uberpop, Amazon Mechanical Turk, or TaskRabbit at the same time as they have another job. Depending on the level of qualification of the labour force, 'uberisation' has different effects and we can expect that the process of individualisation, flexibilisation and dualisation of capital/labour relationship already in place in financialised RA will increase.

The emergence of the platform economy has clearly favoured the development of freelancers. The Silicon Valley model is partly based on freelancers and their mobility and professionals such as coders, engineers, accountants, advertisers, and designers develop their own activity with short-term contracts and moving from one firm to another. By extending the model of freelancers to low skilled workers, however, platformisation replaces labour contracts with commercial contracts, and outsources the risks and costs previously borne by capital to labour. The platform economy is thus a new form of 'dis-empowerment' of the labour force and a new stage of neoliberal capitalism. Uberisation, in the form of crowd working, is another stage of outsourcing of workers and reducing their ability to engage in collective organisation. As such, uberisation is not a new system of labour organisation as it is not very different to the putting-out system that prevailed during the early years of proto-industrialisation. In the putting-out system, workers were self-employed and worked at home with their own means of production and the capitalist who provided the raw materials was simply an intermediary between workers and consumers. This system was replaced initially by the factory and subsequently by manufacturing systems. The manufacturing system and Taylorism were invented to increase the control over the labour force and reduce the risks of opportunism (Marglin, 1974; Tinel, 2004).

Platformisation is re-organising a putting-out system 2.0. Capitalists organise the matching and selling process and the control of labour is easier due to digital applications. In addition, most of the services involved do not involve indivisibility in production and this limits problems related to team work (Baudry and Chassagnon, 2016). By replacing employment contracts with commercial contracts, by controlling access

to the platform to match supply and demand and by removing the distinction between professional and non-professional labour, firms such as Uber have created competition between low-skilled workers. Without the status of wage-earner, incomes are more volatile and previous forms of remunerations such as piece-rate payment are reappearing. This competition between low-skilled workers decreases their incomes and deteriorates their working conditions.

The main concern in relation to this new form of putting-out is that workers who are not wage earners are not protected by labour laws and have no social protection. If such 'uberisation' becomes widespread, it would represent the deinstitutionalisation of the wage-labour nexus, which would be transformed into a commercial relationship. However, the vast majority of workers are still wage earners, and the generalisation of the model is far from certain. As there is a significant level of control imposed on low-skilled workers by these platforms, a number of these workers could actually be requalified as employees. Delivery personnel, for example, are obliged to wear branded uniforms and can be disconnected from the platform if they do not accept enough orders. In California, the UK and France, delivery personnel and drivers of some platforms are seeking to have their contracts requalified as an employment contract. To date, legal decisions have been handed down in favour of workers. If this trend is confirmed in future legal rulings, the business model of such platforms would be in danger and the diffusion of this 'new' form of the capital/labour relation would be significantly limited.

4.2 Crisis, poverty and inequalities as a source of development of the platform economy and free lancing

There is a self-reinforcing relationship between inequalities and the development of the platform economy. Poverty and inequalities encourage the development of platforms and platforms, in turn, may increase poverty by the dis-empowerment of low-skilled labour and the rise of very high-paid 'stars'.

During the Great Recession, unemployment and poverty increased in most OECD countries, weakening the balance of power for employees and unions, although insiders still have strong social benefits and strong employment protection. It was when unemployment grew and median income stagnated or decreased at the beginning of the 2010s that Airbnb or Uber rose to prominence (Rippe-Lascout and Ternisien, 2016). In a very competitive international context with high unemployment and stagnating wages, the only option to increase purchasing power is to decrease prices or to supplement primary income with new activities. This is typical of a deflationist regime. Schor (2017) highlights how the platform economy increases inequalities among the poorest 80% of the population. For high-skilled workers with rare qualifications, digitalisation and jobbing platforms can increase their incomes if they choose to become freelancers. This is also the case for high skilled workers who use some jobbing platforms to supplement their incomes by practicing low-skilled work as a secondary activity. Workers who are not dependent on the platforms can thus use it to increase their income. However, for low-skilled workers dependent on platforms and struggling to survive, the relationship is reversed and the inherent competition generated by the platform decreases their incomes.

The rationale that is often given for why people are using the platform economy tends to be positive and suggest that it is because it is 'more fun', 'more green', 'more

collaborative' or 'more inclusive'. However, a recent French study has shown that the dominant reason for using such platforms is financial. Their attraction lies primarily in the fact that their services are less costly or that people can earn additional income by renting their home or by working as driver. This is clear from the fact that 80% of users in the study reported that they use platforms to save money, while only 24% reported that it was to 'consume differently or in non-traditional channel'. Only, 15% reported that platforms were used in order 'to protect the environment' and 7% reported that it was for the human contact. On the other side of the platform for people selling or renting, 57% of respondents to the study are doing so to earn more money (Rippe-Lascout and Ternisien, 2016). Schor (2017) has shown that different social motivations may motivate users to participate in platforms and that these may be altruistic but that the poorest and the more dependent workers are using platforms simply because they need money to live.

The development of the platform economy has, therefore, been encouraged by the growing levels of inequality and unemployment that emerged as a result of the crisis of the financialised RA. Its emergence, in turn, reinforces inequalities between skilled and unskilled workers.

5. The 'silicolonisation' of public policies: the final pillar in the edifice of the Schumpeterian Workfare State

The state is defined as 'a set of institutionalized compromises that ensures the mediation of violence and conflicts to produce public policies' (Delorme and André, 1983). Its role has been significantly transformed by changes that have taken place in the other IFs that have been adapted to facilitate the development of the platform economy. The dominant stakeholders express two political demands. One is that governments deregulate industries and the other is to reduce spending and both these recommendations are complementary to efforts for financial liberalisation and the associated transformations of monetary regimes. 'Platformisation' thus reinforces dis-embeddedness by giving it a new form and by proposing new restrictions on the domain of States. Morozov (2013) explains how financialisation and platformisation occupy roles as 'bad cop' and 'good cop', respectively, at both a political level and as drivers of the transformations of the form of the State. The trajectory underway combines a simple reduction of the public domain with public policies organised by states that ensure the hegemony of worldwide digital giants such as the GAFAs and Uber.

To interpret these changes in theoretical terms, it is important to bear in mind the large diversity of 'institutionalised compromises' that generates the forms that states may take and that explains their imperfect coherence (Théret, 2006). The 'Fordian State', for example, cannot be reduced simply to the 'welfare state' as it also had an ability to distribute productivity gains along with Keynesian policies. Divergent forms of 'Fordian States' emerged in different national capitalisms as a result of bundles of regulations and public policies that were both central and local. These sectorised public policies are not simply local versions of economic policies, but they are developed to stabilise more subtle compromises in multiple sectorised policies such as transport, education, health or housing. In each domain, the State has to produce rules and forms of taxation and subsidisation not only to solve market failures but also to organise compromises between social and territorial groups with conflicting interests.

The activities concerned are largely ‘mixed’ because private initiatives and competition are embedded in rules to stabilise local political compromises. Fligstein (2001) underlines the necessity of such embeddedness for firms to limit competition and price wars, and he introduces the concept of ‘conception of control’. This is a shared representation of how to control/adapt to competition and organise firms. The concept of ‘conceptions of control’ is also relevant to our understanding of the form of the state and its key role in stabilising the relations among stakeholders. This could involve, for example, mediating between patient needs and those of the pharmaceutical industry in the provision of healthcare or catering for households in relation to the supply of transport. Through mediating these relations between firms and stakeholders in order to stabilise the conceptions of control for firms, the state apparatus accumulates competences in its various local and central components and structures them in corpus and doctrines.

From this perspective, certain forms of these sectoral compromises were largely preserved and defended by an alliance between civil servants, political staff and local political demands during the period of transformation of monetary and economic policies, of forms of competition and of wage the labour nexus. During the 1980s and 1990s, therefore, the advance of deregulation move and the growing pauperisation of states at different level was facilitated by these compromises as they mitigated the damaging effects of globalisation on households and territories. In France, in particular, the pauperisation of the central state was accompanied by a significant transfer of competences and resources to local authorities, including regions and cities. These actors thus developed proactive policies and their competent civil servants worked to maintain public services and local policies for transport, housing or education.

Platformisation, however, is proving to be a more explicit challenge to these series of compromises as it suggests that civil servants and political staff adopt tools and doctrines that are more ‘efficient’ for transforming and/or ‘modernising’ their domains. Both the general doctrine developed by ‘siliconians’ and its variations in different areas have been studied through the framework of the GAFAs’ cultural archaeology by Turner (2006). He describes how Californian entrepreneurs associated with the platform economy are linked to the counter-culture that opposed the conservatism of US society in the 1970s. Over time, a large part of this generation transformed its quest for societal change to a search for alternatives in business opportunities through the ‘digital revolution’. Sadin (2016) defines ‘silicolonisation’ as the invasion and diffusion of Silicon Valley’s culture and ideology across an increasing number of domains, including politics. The discourse of these Silicon Valley entrepreneurs has become increasingly explicit in promoting practices that they claim can solve problems usually considered to be public ones. At the same time as they maintain their fundamental libertarian ways of thinking, they have allied themselves with neo-liberal demands and these ‘digital gurus’ have become severe critics of bureaucracy, conservatism and corporatism as explanatory factors for the inefficiency of public policies.

This ‘silicolonisation’ appears to provide the finishing touch to the structural transformations analysed 25 years ago by Jessop (1993) who analysed the advent of a Schumpeterian Workfare State. The key economic and social objectives he identified have become the promotion of innovation, the enhancement of the structural competitiveness of open economies and the subordination of social policy to the demands of

work flexibility and competitiveness. The underlying clarion call of this phase of the transformation is that of modernism.

Digitalisation and the 'platform economy' are thus promoted as a more 'modern', cheaper and democratic way to solve problems usually analysed as 'market failures' that require public regulation or the provision of public goods by the State. For policy makers, this argument is very attractive as decades of neo-liberalism have already significantly reduced both their legitimacy and their financial resources. As a consequence of these financial constraints and because they have been led to believe in the superior efficiency of private operators, they are paradoxically free to abandon the traditional scope of their expertise to Uber, Google or other start-ups who claim to be in a position to solve the problems they face in a more effective way.

By developing their 'digital solution' and by participating very actively in public debates about public policies in different circles, the GAFAs have gradually transformed the status quo in their specific area and have mobilised the support of civil servants. As a result, there is no 'concerted attack' against public services but multiple local alliances between this entrepreneurial world, civil servants and public experts. Typically, before explicitly selling their digital solutions, digital entrepreneurs appear in specialised colloquia to share their expertise and convince public actors and experts of the strength of their analysis. They generally explain why it is so important to 'change the paradigm' with the help of cliché that explain that this is way 'to do more with less', 'to put users, patients or students at the heart of the system through digital solutions'. They oppose the 'old world' where top-heavy bureaucracy, dubious expertise and intolerable monopolies impose top-down solutions with the digital tools and big data solutions that propose the real-time, efficient solutions that are need to address the challenges of the complex world of today. Initially, elected representatives and civil servants may be reluctant but over time they are gradually convinced by such argument and can often become pro-active in support of the proposed changes. At this point, they genuinely believe that they will be able to do a better job by using these new tools and generating the promised savings and they are motivated by the new challenges emerging in this new world.

By influencing areas such as public transport, healthcare systems, training or housing, platforms can influence the norms and legislation that define the rules of the game to which firms must comply. As a private governance structure, platforms define their own rules, and most of them operate at the fringe of the law. If they are able to convince policy makers that they will operate more efficiently in these areas than would be possible under existing rules and policies, they legitimate their practices and their political demands. More fundamentally such 'political work' is an effective means to counter resistance against 'platformisation'. Market-place platforms, for example, use the stateless nature of the Internet to sell goods, such as medicines, which are not allowed in certain countries and/or can only be sold in accordance with specific rules. Jobbing platforms for virtual work (in the sense of [De Groen and Maselli, 2016](#)) can bypass national laws in relation to outsourced work. Unfair competition also relates to the tax situation, both VAT and tax on corporate profits. By showing they can do the jobs previously done by public services, GAFAs and start-ups legitimise their efforts to avoid taxation, to get public subsidies and to sell their services to states and local authorities. There is still a debate and both the OECD and the European Commission are redesigning fiscal rules to clamp down on tax avoidance strategies. In September

2017, however, the French government decided to stop investing in costly heavy infrastructure projects such as intercity railways and motorways for public transport and to allow car sharing platforms optimise the use of existing resources such as roads and cars.

6. Conclusion: the contingent and uncertain MR and political compromise of an unstable predatory, competitive and dysfunctional regime

The main transformations of IFs are summarised in [Table 1](#) and [Figure A1](#). The platform economy appears as an endogenous transformation of financialised capitalism and pre-existing relations rather than a radically new RA.

In a platform economy, as in the financialised RA, the dominant hierarchical IF remain the monetary/financial regime, the forms of competition and the international regime. The State and wage–labour nexus remain the dominated forms ([Figure 1](#) and [Appendix](#)).

Finally, the platform economy appears as a more intense version of the financialised RA and dis-embeddedness. As a consequence the major well-described consequences of this RA are not likely to be altered. Debt and bubble-fuelled growth, instability and low wage growth are thus likely to continue along with a ‘debt-deflationist’ mode of regulation and low growth of productivity linked to the growth of the service economy ([Boyer, 2000](#); [Stockhammer, 2004](#)).

Paradoxically, while the current period of expansion of the platform economy is generally described as very innovative, labour productivity has not yet increased. Much research on the question centres on ‘Solow’s paradox’ and the secular slowdown of total factor productivity ([Gordon, 2012](#)). There is, therefore, still no concrete proof that the platform economy will prove sufficient to generate a high growth regime. In addition, economic theory has highlighted advantages of vertical integration and team work to enhance the development of new capabilities ([Baudry and Chassagnon, 2016](#)). Interestingly, one difficulty with the start-up model of the platform economy is the fact that many SMEs, having disrupted one market, rarely invest in the accumulation of competences in relation to the industry when the cost or complexity of the activities proves too challenging.

In addition, a lot of platforms do not make profit or do not create value added. Uber has accumulated large losses in 2016 and Airbnb became profitable only in the second half of 2016 and these are the largest companies in the sector. The smallest ones often generate negative ‘value added’ and, therefore, destroy value. Of course, the net contribution of the platform economy is higher than the measure of value added because it generates new services and experiential values for consumers and users. It has been argued by some authors ([Aghion et al., 2018](#)) that growth linked to innovation, especially destructive creation, is understated. It is also pointed out that platforms can reduce the prices of some services through increased competition among services providers and companies. These arguments forget, however, that the aim of any form of capital is to produce (exchange) value for profit, not to provide use value, which is just a means for capital. Platforms are capturing part of the rent from their position as intermediary or ‘market organiser’. Very few create actually value for capital, so their activity resembles a redistribution of surplus value rather than value creation. The net effect on the average rate of profit is not yet very clear, but considering the fact that a growth in labour productivity is still highly uncertain and the combination of inequalities, austerity

Table 1. *The comparison of the IF of financialised RA and platform capitalism*

Institutional forms	Financialised RA	Platform economy
Monetary and financial regime	Pure credit money, central banks as lender of last resort and guaranty against financial crises; dominance of private banks and institutional investors; high development of financial markets; money managed capitalism; dominance of shareholder value management; VC and PE	Financialised monetary regime plus: competition of private cryptocurrencies (?); small disruption of private banks and asset management industry by blockchain & fintech (??) and crowdfunding to complement VC
Form of competition	Outsourcing; financialised and globalised competition (take-overs; M&A; role of stock prices etc.); focusing on intangibles; dominance of MNCs; growing commodification and financialisation of activities; tax and regulation avoidance as competitive strategy	Financialised form of competition plus: extension of competition and commodification due to platforms; outsourcing as crowdsourcing; dominance of MNCs and GAFA/large platforms; first mover/winner takes all and disrupting competition
Wage–labour nexus	Individualisation, flexibilisation, de-unionisation; financialisation of rewards; (stock options); pension funds; erosion of social and employment protection; slow growth of wages compared with productivity	Financialised form of wage–labour nexus plus: pay to piecework, new form of putting-out system with ‘independent workers dependents’
Form of the State	Neoliberal State; Erosion of Welfare State; Competitiveness, credibility and attractiveness as mantra of public policies; Technicisation and depoliticisation of public policies	Austeritarian-neoliberal and siliconised-schumpeterian State; organised impoverishment of indebted State by outsourcing to platforms; siliconisation and technicisation of public policies; digitalisation and platforms as technical solutions to political problems
International regime	Free trade and free movement of capital; dominance of MNCs and declining hegemony of USA and growth of emergent countries	Financialised form of competition plus: competition between States;

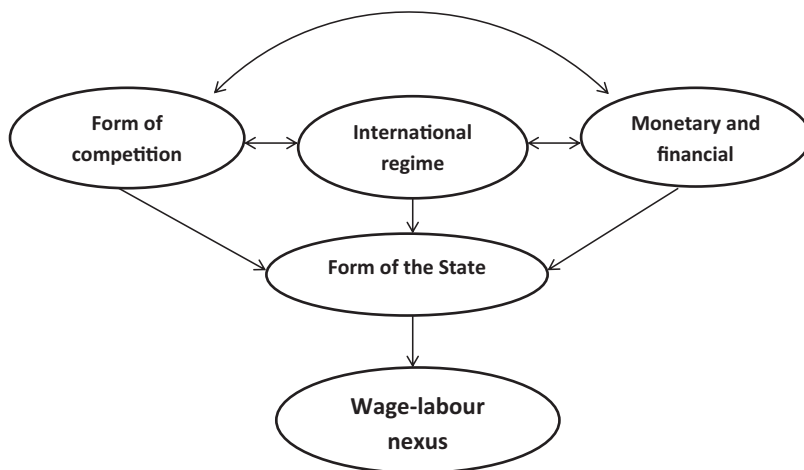


Fig. 1. *The institutional hierarchy in financialised regime and platform economy*

policies, financialisation and stagnant wages from the demand side, it is hard to imagine that this new context could generate a new stable and high growth RA.

It would appear that the likelihood of a real surge of productivity will depend the progress made in artificial intelligence and robotics by Google, Facebook or Uber. The development of these technologies has been made possible by access to big data and their widespread application would increase the substitution between capital and labour. It is often claimed that this is what will lead to a significant increase in labour productivity (Brynjolfsson and MacAfee, 2011; Frey and Osborne, 2013). However, this will further exacerbate the inequalities between low- and high-skilled workers—depressing the growth of wages and demand—and will increase the conflict between capital and labour. If no regulations are invented to address such conflicts, there will be potential for the emergence of neo-luddite forms of struggle. The net effect of robotics on labour productivity and employment (Arntz *et al.*, 2016), however, has generated much debate involving some more alarmists commentators and others who are more optimistic from a productivity point of view (Brynjolfsson and MacAfee, 2011; Frey and Osborne, 2013).

The emergence of a new platform-led RA is, therefore, highly dependent on the contingent transformations of the MR and the associated socio-political compromises.

This ‘new’ MR and the silicolonisation process are an attempt to depoliticise the economy and to make the state obsolete, by substituting digitally organised markets, ‘pragmatism’, ‘technical adaptation’, ‘innovation’ and ‘problem solving’ to policy making and politics. Morozov (2013) calls this ‘technical solutionism’. Rather than organising deliberation about collective ends, it predominantly promotes adaptive and competitive behaviour along with technical solutions. This is the essence of dis-embeddedness. By trying to invalidate the role of politics, this approach is, in fact, imposing a form of libertarianism policy and the domination of capital. It particularly works in favour of highly skilled workers such as the geeks, coders, freelancers, managers and the capitalist class and against the interest of low-skilled and low-paid workers from services and industry.

As a result, the story has not yet been played out, and uncertainty about the future development of this process of platformisation remains high. As the dis-embeddedness deepens, the tensions are growing along with the threat of political reactions. Platform capitalism thus generates conflicts by disrupting sectors where we are witnessing the re-emergence of politics and re-embeddedness. This is the case, for example, with taxi drivers opposing Uber or Airbnb in conflict with city administrations. In the French presidential debate in 2016, some candidates such as socialist B. Hamon, far-left J-L. Mélenchon and even far right M. Le Pen spoke out against ‘uberisation’, whereas E. Macron who won the election, proposed measures in favour of the platform economy. But political support for ‘silicolonian’ modernisation is not significant and most developed countries are on the verge of deep political crises (Amable and Palombarini, 2017), which could lead to critical junctures and unpredictable transformations. Subsequently, more detailed case studies to study this political instability and the associated conflicts, lobbying of different groups and possible political compromises should be the core of a *régulationist* research programme on the platform economy.

Bibliography

- Aghion, P., Bergeaud, A., Boppart, T., Klenow, P. J. and Li, H. 2018. ‘Missing Growth From Creative Destruction’, NBER Working Paper N° 24023, doi:10.3386/w24023
- Amable, B. and Palombarini, B. 2017. *L'illusion du bloc bourgeois*, Paris, Raison d’agir
- Arntz, M., Gregory, T. and Zierahn, U. 2016. ‘The Risk of Automation for Jobs in OECD Countries: a Comparative Analysis’, OECD Social, Employment and Migration Working Papers, no. 189, Paris, OECD Publishing, doi:10.1787/5jlz9h56dvq7-en
- Arthur, W. B. 1989. Competing technologies, increasing returns and lock-in by historical events, *The Economic Journal*, vol. 99, no. 394, 116–31
- Auvray, T., Dallery, T. and Rigot, S. 2016. *L'entreprise liquidée. La finance contre l'investissement*, Paris, Michalon
- Baudry, B. and Chassagnon, V. 2016. L’arbitrage entre le salariat et le travail indépendant au prisme des théories de la firme. Une analyse économique des pratiques de Crowdfunding, *Revue de l’OFCE*, no. 149, 167–89
- Bédu, N. and Montalban, M. 2014. Analysing the uneven development of private equity in Europe: legal origins and diversity of capitalism, *Socio-Economic Review*, vol. 12, no. 1, 33–70
- Benkler, Y. 2004. Sharing nicely: on shareable goods and the emergence of sharing as a modality of economic production, *Yale Law Journal*, vol. 114, 273–358
- Bergeaud, A., Cette, G. and Lecat, R. 2016. Productivity trends in advanced countries between 1890 and 2012, *Review of Income and Wealth*, vol. 62, no. 3, 420–44
- Bostman, R. 2013. The sharing economy lacks a shared definition, Working paper, available at <https://www.fastcompany.com/3022028/the-sharing-economy-lacks-a-shared-definition> (last accessed 15 May 2017)
- Boudreau, K. and Haghiu, A. 2009. Platforms rules: multi-sided platforms as regulators, pp. 163–91 in Gawer, A. (ed.), *Platforms, Markets and Innovation*, Cheltenham, Edward Elgar
- Boyer, R. 2000. Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis, *Economy and Society*, vol. 29, no. 1, 111–45
- Boyer, R. 2015. *Economie politique des capitalismes*, La découverte, Paris
- Brynjolfsson, E. and MacAfee, A. 2011. *Race against the machine*, Lexington (Mass), Digital Frontier Press
- Chesbrough H. W. 2003. *Open Innovation. The New Imperative for Creating and Profiting from Technology*, Boston (Mass.), Harvard Business Review Press
- Conley, J. 2017. ‘Blockchain and the Economics of Crypto-tokens and Initial Coin Offering’, Vanderbilt University Department of Economics Working Paper, n°17-00008, available at

- <http://www.accessecon.com/Pubs/VUECON/VUECON-17-00008.pdf> (last accessed 13 September 2017)
- Coriat, B. and Orsi, F. 2003. Brevets pharmaceutiques, génériques et santé publique- le cas de l'accès aux antirétroviraux, *Revue d'économie politique*, no. 12, 153–177
- Cumming, D. J. 2008. Contracts and exits in venture capital finance, *Review of Financial Studies*, vol. 21, no. 5, 1947–82
- De Groen, W. P and Maselli, I. 2016. The impact of the collaborative economy on the labor market, CEPS Special Report, European Union, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2790788 (last accessed 29 June 2017)
- Delorme, C. and André, R. 1983, *L'Etat et l'économie*, Paris, Le Seuil
- Dobusch, L., 2017. Sharing Economy Between Commons and Commodification, JKU Conference, Linz, 10–13 January, available at http://www.jku.at/JKU_Site/JKU/conferences/content/e290365/e321486/e321494/Dobusch_GreaTrans.pdf (last accessed 7 September 2017)
- Eisemann, T. 2005. Managing networked businesses; course overviewed for students, Boston (Mass), Harvard Business School Note, 806–103
- Evans, D. 2003. How catalysts ignite: the economics of platform-based start-ups, pp. 99–128 in Gawer, A. (ed.), *Platforms, Markets and Innovation*, Cheltenham, Edward Elgar
- Enyi, J. and Le, N. 2017. The Legal Nature of Cryptocurrencies in the US and the Applicable Rules, SSRN), available at <https://ssrn.com/abstract=2995784> (last accessed 13 September 2017)
- Fligstein, N. 2001. *The Architecture of Markets. An Economic Sociology of Twenty-first Capitalist Societies*, Princeton, Princeton University Press
- Ford, R., Richard, B. and Ciuchita, M. 2015. Crowdsourcing: a new way of employing non-employees?, *Business Horizons*, vol. 58, 377–88
- Frey, C. and Osborne, M. 2013. 'The Future of Employment: How Susceptible Are Jobs to Computerisation?', Oxford Martin School Working Paper, available at <https://www.oxfordmartin.ox.ac.uk/publications/view/1314> (last accessed 8 June 2018)
- Gadrey, J. 2000. *Nouvelle économie, nouveau mythe?*, Paris, Flammarion
- Gordon, R. 2012. 'Is U.S Economy Growth Over? Faltering Innovation Confronts the Six Headwinds', NBER working paper no. 18315, available at <http://www.nber.org/papers/w18315> (last accessed 8 June 2018)
- Hagiu, A. 2006. Pricing and commitment by two-sided platforms, *The RAND Journal of Economics*, vol. 37, no. 3, 720–37
- Husson, M. 2010. Le partage de la valeur ajoutée en Europe, *La revue de l'IREs*, vol. 64, no. 1, 47–91
- Jessop, B. 1993. Towards a schumpeterian workfare state? Preliminary remarks on post-Fordist political economy, *Studies in Political Economy*, vol. 40, 7–39
- Lazonick, W. 2009. *Sustainable Prosperity in the New Economy? Business Organization and High-Tech Employment in the United States*, Kalamazoo (Michigan), W.E Upjohn Institute for Employment Research.
- Lazonick, W. and O'Sullivan, M. 2000. Maximizing shareholder value: a new ideology for corporate governance?, *Economy and Society*, vol. 29, no. 1, 13–35
- Le Velly, R. 2008. Karl Polanyi, la Nouvelle sociologie économique et les forces du marché, *Interventions économiques*, vol. 38, available at <https://journals.openedition.org/interventionseconomiques/282>
- Marglin, S. A. 1974. What do bosses do? The origins and functions of hierarchy in capitalist production, *Review of Radical Political Economics*, vol. 6, no. 2, 60–112
- Mason, P. 2015. Airbnb and Uber's economy are one route to dotcommunism, *The Guardian*, 21 June 2015
- Montalban, M. and Saking, M. E. 2013. Financialization and productive models in pharmaceutical industry, *Industrial and Corporate Change*, vol. 22, no. 4, 981–1030
- Morozov, E. 2013. *To Save Everything, Click Here: The Folly of Technological Solutionism*, Public Affairs, Hachette Book Group
- Piketty, T. 2013. *Le capital au XXI^e siècle*, Paris, éditions du Seuil
- Polanyi, K. 1944. *The Great Transformation: Economic and Political Origins of Our Time*, New York, Rinehart

- Prahalad, C. and Hamel, G. 1990. The core competence of the corporation, *Harvard Business Review*, vol. 68, no. 3, 79–91
- Rippe-Lascout, G. and Ternisien, V. 2016. *Ubérisation de l'économie en France: une nouvelle arme de destruction créatrice massive?*, Paris, Les publications économiques de la COFACE
- Sadin, E. 2016. *La silicolonisation du monde. L'irrésistible expansion du libéralisme numérique*, Paris, édition L'échappée
- Schmidt, G. B. and Jettinghoff, W. M. 2016. Using Amazon mechanical turk and other compensated crowdsourcing sites, *Business Horizons*, vol. 59, no. 4, 391–400
- Schor, J. B. 2017. Does the sharing economy increase inequality within the eighty percent? Findings from a qualitative study from platform providers, *Cambridge Journal of Regions, Economy and Society*, vol. 10, no. 2, 263–79
- Shapiro, C. and Varian, H. 1998. *Information rules: A strategic guide to the network economy*, Harvard, Harvard Business Review
- Siegel, E. 2016. *Predictive Analytics*, Hoboken (NJ), Wiley
- Stockhammer, E. 2004. Financialization and the slowdown of accumulation, *Cambridge Journal of Economics*, vol. 28, no. 5, 719–741
- Streeck, W. 2011. The crises of democratic capitalism, *New Left Review*, vol. 71, 5–29
- Suarez, F. and Cusumano, M. 2003. The role of services in platforms markets, pp. 77–98 in Gawer, A. (ed.), *Platforms, Markets and Innovation*, Cheltenham, Edward Elgar
- Théret, B. 2006; To have or to be: A topological approach of the interaction between State and economy in Coriat, B., Petit, P. and Schméder G. (eds.), *The Hardship of Nations. Exploring the Paths of Modern Capitalism*, Cheltenham, Edward Elgar
- Tinel, B. 2004. *A quoi servent les patrons? Marglin et les radicaux américains*, Lyon, ENS éditions
- TRANSIT. 2015. 'Transitions Towards New Economies? A Transformative Social Innovation Perspective', TRANSIT working paper n°3, available at <http://www.transitsocialinnovation.eu/resource-hub/transitions-towards-new-economies-a-transformative-social-innovation-perspective> (last accessed 8 June 2018)
- Turner, F. 2006. *From Counterculture to Cyberculture*, Chicago, University of Chicago Press
- Useche, D. 2014. Are patents signals for the IPO market? An EU-US comparison for the software industry, *Research Policy*, vol. 43, no. 2, 1299–311
- Wright, A. and De Filippi, P. 2015. 'Decentralized Blockchain Technology and the Rise of Lex Cryptographia', Working paper, available at <https://ssrn.com/abstract=2580664>
- Zysman, J. and Kenney, M. 2016. 'The Next Phase in the Digital Revolution: Platforms, Abundant Computing, Growth and Employment', ETLA Reports No 61, available at <https://dl.acm.org/citation.cfm?doid=3181977.3173550> (last accessed 15 May 2017)

Appendix

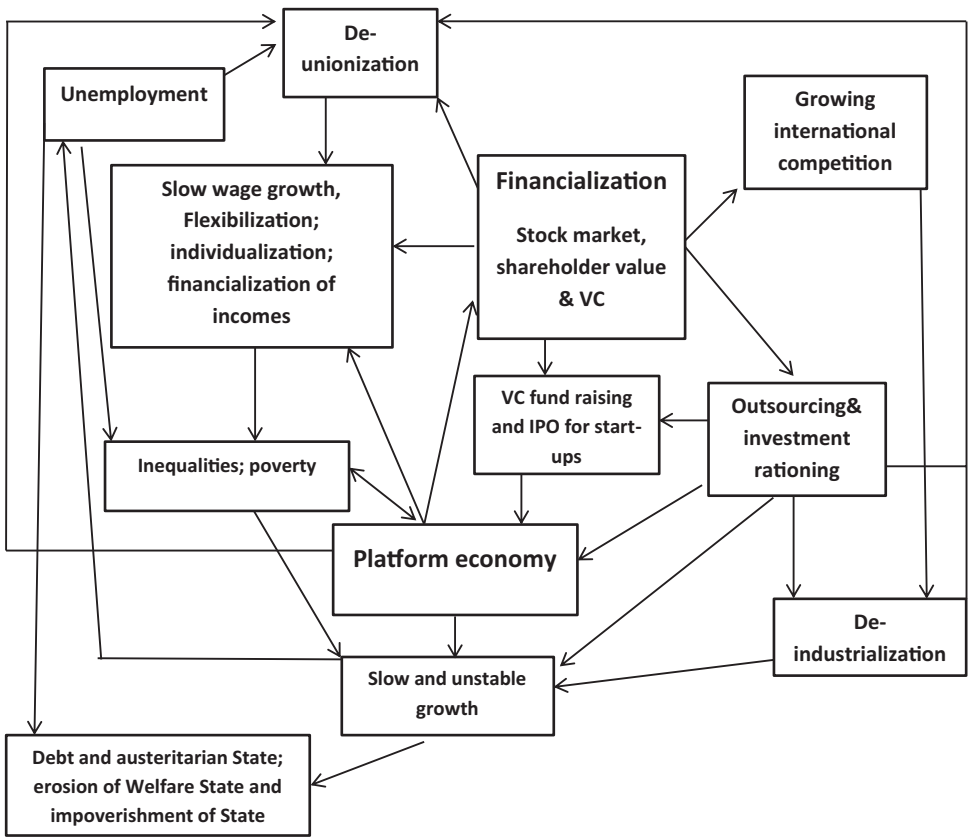


Fig. A1. *From financialised regime of accumulation to the platform economy*