

# Theorising and mapping modern economic rents

---

**Mariana Mazzucato**

Professor in the Economics of Innovation and Public Value,  
Director, UCL Institute for Innovation and Public Purpose

**Josh Ryan-Collins**

Head of Finance and Macroeconomics, Senior Research Fellow,  
UCL Institute of Innovation and Public Purpose

**Giorgos Gouzoulis**

Research Fellow,  
UCL Institute of Innovation and Public Purpose



UCL Institute for  
Innovation and  
Public Purpose

WORKING PAPER  
WP 2020-13

## About the Institute for Innovation and Public Purpose

The UCL Institute for Innovation and Public Purpose (IIPP) aims to develop a new framework for creating, nurturing and evaluating public value in order to achieve economic growth that is more innovation-led, inclusive and sustainable.

We intend this framework to inform the debate about the direction of economic growth and the use of mission-oriented policies to confront social and technological problems. Our work will feed into innovation and industrial policy, financial reform, institutional change, and sustainable development.

A key pillar of IIPP's research is its understanding of markets as outcomes of the interactions between different actors. In this context, public policy should not be seen as simply fixing market failures but also as actively shaping and co-creating markets. Re-focusing and designing public organisations around mission-led, public purpose aims will help tackle the grand challenges facing the 21st century.

IIPP is housed in The Bartlett, a leading global Faculty of the Built Environment at University College London (UCL), with its radical thinking about space, design and sustainability.

This IIPP Working Paper Series is published electronically at <https://www.ucl.ac.uk/bartlett/public-purpose/publications/working-papers>.

ISSN 2635-0122

### This report can be referenced as follows:

Mazzucato, M., Ryan-Collins, J. and Gouzoulis, G. (2020). *Theorising and mapping modern economic rents*. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-13). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2020-13>

---

# Theorising and mapping modern economic rents

Mariana Mazzucato, Josh Ryan-Collins and Giorgos Gouzoulis<sup>1</sup>

## Abstract

There is increasing consensus that modern capitalist economies suffer from excessive rent extraction. The neoclassical approach sees rents as emerging from market imperfections — which lead to prices above the optimum equilibrium level. Using a markup pricing framework, we argue instead that rising rents — which increase the underlying cost-structure of the economy through higher overheads — may also induce redistribution of income between capital and labour without price changes. The structure of these overheads is driven largely by political-economy dynamics and power relationships much neglected in conventional policy. Similarly, digital platforms can extract rents which affect market competition without price effects. By taking a more objective view of these rents, building on classical theory, we can better establish the processes of value creation and value extraction to identify modern rents. We illustrate these dynamics in a number of key sectors to show rents have become permanent rather than transient features and consider how we might better recognise and reduce such rents via policy interventions. Our approach provides a framework for understanding how rising modern economic rents are related to increasing inequality and declining investment and innovation, contributing to 'secular stagnation'.

**Keywords:** Economic rent, rent-seeking, income distribution, inequality, innovation, capitalism, secular stagnation, digital platforms, land, financialization

**JEL codes:** E02, O43, P14, L43

## Acknowledgements:

This paper was supported by grants from the Thirty Percy Foundation and the Omidyar Network.

<sup>1</sup> UCL Institute for Innovation and Public Purpose, University College London; Emails: [m.mazzucato@ucl.ac.uk](mailto:m.mazzucato@ucl.ac.uk); [j.ryan-collins@ucl.ac.uk](mailto:j.ryan-collins@ucl.ac.uk); [g.gouzoulis@ucl.ac.uk](mailto:g.gouzoulis@ucl.ac.uk)

---

# 1. Introduction

A growing body of literature has identified the fact that modern economies are suffering from excessive rent and value extraction (see, *inter alia*, Piketty 2014; Standing 2016; Ryan-Collins et al 2017; Mazzucato 2018; Stiglitz 2019; Christophers 2019). The financial sector increasingly allocates resources towards unproductive activities, charging fees and interest in the process (Bezemer and Hudson 2016). Land rents are also exploding alongside a housing affordability crisis in many advanced-economy cities (Ryan-Collins 2019). The 'real' sector is also increasingly embracing rent extraction business models, from excessive share buy-backs (Lazonick and O'Sullivan 2000), through digital platform network monopolies (Zuboff 2018; Mazzucato et al 2020) to big pharmaceutical firms' aggressive drug pricing strategies. Environmental rents maintain ecologically unsustainable forms of production.

However, notwithstanding the increasingly accepted critiques, why is so little changing in terms of policy? We argue that the explanation may lie with the mainstream approach to rents, which dominates policy thinking. This takes a subjective view of rents, focussing on preferences and marginal productivity in determining economic value in markets, neglecting the role of ownership, power and the distribution of rents (Ryan-Collins et al 2017, chapter 2; Mazzucato 2018). Put another way, the rent debate has shifted away from the 'objective' analysis of production through which one can understand 'who is doing what and who is earning what' to a 'subjective' one where value emerges from the analysis of exchange. In this sense, it has moved away from rent as unearned income to the analysis of inefficient markets and prices.

The term 'rent-seeking' in public choice theory is focussed on the study of special interests which establish a market advantage, preventing healthy competition and the establishment of efficient market pricing (Tullock 1967; Krueger 1974). Accordingly, for these scholars and policymakers following their lead, rent is only a problem if — and only if — we observe a deviation above the competitive equilibrium price. However, this perspective naturally limits the options for public policy intervention since the state is assumed itself to be prone to rent-seeking (or the acceptance of expenditures in return for market favours); hence 'government failure' is presented as being just as much a problem as a market failure (Tullock et al 2002).

In Section 2 we argue that the scenario of rising prices is just a special case, which overlooks the fact that rentierisation can induce income redistribution between factors of production (capital, labour and land) without price increases. Instead, rising rents are due to the monopolistic nature of certain sectors (e.g. land and natural resources) or due to policy interventions (e.g. patent legislation) that inflate the overhead costs of the productive, value-creating sectors of the economy with knock-on effects on investment and wages. This approach is also important for conceptualising rents in the fast-growing digital sector of the economy where products and services may ostensibly be *lower* cost or free, but in fact, rents are extracted by intermediaries from providers of services obliged to pay for the use of their monopolistic platforms and/or from consumers in the form of freely-given information.

We use Kalecki's (1954 [2011]) markup pricing framework as a lens for considering these types of distributional trends. We consider this approach to rents helps us better understand the puzzle

of 'secular stagnation' dynamics (Summers 2015) through two distinct channels driven by higher income inequality: falling consumption, and a falling rate of investment and innovation.

In addition, however, it should be recognised that not all rents are economically undesirable. As noted by Schumpeter (1942), the processes of competition and innovation inevitably generate rents as new products are developed which create monopoly-type conditions for the entrepreneur before the innovation diffuses and other market actors 'catch up'. Such rents can help increase inefficiency and reduce inequality. The extent to which rents may be defined as 'good' or 'bad' thus depends on the degree to which they drive income and wealth inequality, and reduce investment and innovation. In turn, this requires a more in-depth sectoral analysis, which we undertake in Section 3, where we look at modern rent dynamics in the fields of land and finance, natural resources, patents, corporate governance and the digital sector. Section 4 concludes with some considerations of the distribution of rents across social classes and avenues for further research.

---

## **2. Value creation and value extraction: a different approach to rents**

From the time of the earliest economists, the physiocrats, understanding how to steer growth in ways that maximise the amount of revenue reinvested in 'productive' activities, versus unproductive ones, has been central to economics and policy. The physiocrats wanted to ensure the spoils from land were reinvested in farming techniques and farming activities, rather than siphoned off by merchants, or the whims of Kings. The classical economists, Ricardo, Mill, Smith and Marx, put this distinction at the heart of their study of political economy, defining economic rent as income extracted from the ownership of a scarce asset (such as land or other natural resources) or control over an activity required for economic production in excess of the costs required to maintain the asset or activity.

This income accrues without the creation of any additional value — what the classicals called 'unearned income' — so it can be viewed as 'value extraction', since it reduces the income available for productive investment, spending or innovation (Mazzucato 2018). The classical economists classified activities as in or out of a 'production boundary', with those excluded not being included in measures of a country's growth and wealth (Christophers 2013; Mazzucato 2018). The more value extraction is rewarded over value creation, the faster the system will atrophy, with rising inequality, inefficient capital allocation and slowing productivity. The focus was thus on the objective conditions of production.

In contrast, neoclassical economic theory, which began to gain credence in the 19th century, argues that in the process of market exchange, firms and consumers determine value subjectively. In a perfectly competitive market, the equilibrium price of a good reflects the subjective preferences of millions of economic agents all seeking to maximise their utility (Marshall 1890; Clark 1891; Wicksteed 1914). Price should then be seen as determining value, not value determining prices as in the classical approach (Mazzucato 2018). Instead, rents in mainstream theory arise from market imperfections which prevent equilibrium prices from being reached via the natural process of market competition (Wessel 1967), resulting in 'deadweight loss' and

allocative inefficiency (Harberger 1954), rather than as unearned income extracted via the ownership and exploitation of certain factors of production (e.g. land), or privileges over them, that provide a structural and positional advantage to agents in the production process.

It initially proved difficult to demonstrate empirically that non-equilibrium-driven deadweight losses were very substantial (Del Rosal 2009). However, in the late 1960s and 1970s, a new approach to calculating the costs of rentier activity was developed: the theory of 'rent-seeking' (Tullock 1967; Krueger 1974; Posner 1975). This argued that the deadweight costs of monopoly and tariffs due to non-equilibrium pricing understated the true social cost, because they neglected the expenditures made in capturing related rents (e.g. transfers to governments or election candidates aimed at securing a monopoly rent). Once these expenditures, which could have been employed in more productive activities instead, are incorporated into the social cost of rentier activity, the economic significance of rents is considerably enhanced (Tullock 1967).

It is certainly true that significant amounts of money are spent on trying to influence government policy; not least large campaign contributions (e.g. see McMenamin 2012; Goerres and Höpner 2014; Philippon 2019). However, whilst this element of the rent-seeking theory is useful, the broader notion of subjective value remains problematic given its neglect of the power relationships that enable rent extraction. A more thorough understanding of rent, building on the objective identification of value of the classicals, requires a closer examination of *value creation*, so as to compare what is done with what is earned. To answer the question 'who owns what and why?' it is necessary to understand the *collective* and *cumulative* process of value creation involving multiple actors across the economy (workers, government institutions, businesses, finance), and how the value created is then distributed.

A key issue is that poor alignment between risks and rewards, where risks are often socialised, but rewards are privatised, thus generating rents (Lazonick and Mazzucato 2013). One topical example is pharmaceuticals, where the state typically invests significant amounts of money in early stages, high-risk R&D for new drugs, but private firms, who join the innovation process at a less risky stage, tend to extract the largest benefits once the drug is commercialised (Mazzucato and Roy 2019).

Rent can then be defined as *income earned in excess of the reward corresponding to the contribution of a factor of production to value creation*. If the reward accruing to an actor is larger than their contribution to value creation, then the difference may be defined as rent. This can be due to the ownership of a scarce asset, the creation of monopolistic conditions that enable rising returns in a specific sector, or policy decisions that favour directly or indirectly a specific group of interest. Policy decisions that assign certain legal rights can enable rent extraction by enabling these outcomes, for example by not taxing capital gains on scarce assets, or by allowing privatisation or unimpeded creation of network externalities to enable monopolistic conditions.

Importantly, rents may well exist even in competitive product markets, i.e. rising rents do not necessarily increase final goods prices, but they do lead to *unfair distribution* of the benefits of value creation and innovation. In addition, rentiers are not a distinct social class, since different socio-economic groups can own assets such as shares or land. Thus, they may earn income

related to their effort/contribution to the value creation process as well as unearned income/rent due to asset ownership.

Given that capitalism is indeed prone to rent extraction, i.e. income is not distributed fairly among the contributors to the value creation process due to power differentials, redistributive policies and public investment are neither unfair nor inefficient *per se* (e.g. see Deleidi et al (2020) for the impact of public investment on mobilising renewable energy investment). Nevertheless, it must be underlined that certain types of government intervention can indeed allow further rent extraction, for example through certain forms of patent legislation. Transient Schumpeterian rents, for example earning income from a short-term patent, might indeed be to some extent desirable as they can increase the incentive for innovation and investment. However, if that evolves to a more permanent income source, for example, if policy allows long-term patents, then this becomes a burden for innovation in the form of high overhead costs for new innovators.

Consequently, rent extraction business models are dynamic, institutionally specific and will differ across space and time. Different legal frameworks and corporate governance models co-create substantially different rent extraction models. Hence, analytically, rentierism and rentierisation should be examined from a comparative perspective, centring on qualitative and institutional cross-country, as well as cross-sector, discrepancies.

In summary, in linking rents to production, we do not focus on 'rent-seeking', but value creation and extraction activities, and while value extraction in traditional sectors is extracted through access to scarce resources (e.g. oil, real estate), in high-tech industries it occurs through control of the innovation process itself. Rentiers can be viewed as actors who extract value by inserting themselves 'strategically in exercising control over the returns from the innovation process, extracting a share of returns from the expanding economic pie that is in excess of their contribution to the process that generated that expanding pie' (Lazonick and Mazzucato 2013: 1014).

By understanding rents as accruing from a mismatch between value creation and value appropriation, we can look at the effect this has on the wider economy — the ability of the system to reproduce and grow when value is extracted out (less innovation and more inequality) — and on the sectors in question, hurting their ability to create genuine value. We examine the former in Section 3 and the latter in Section 4.

---

### **3. A distributional perspective**

There is indeed a unifying element among economic rents: rising rents increase the cost structure of the economy and in doing so typically burden value-producing firms and households. This has a distributional effect and a growth effect. To demonstrate the distributional conflict between the value creation-oriented firms and rentier-oriented firms and households at the macro level, we use a Kalecki-inspired (1954 [2011]) aggregate markup pricing framework as follows:

$$\textit{Final Goods Price Level} = \textit{Markup} + \textit{Overheads}$$

In practice, firms charge a price markup over their total expenditure on overheads, which typically includes core costs — wages, land, energy and financial payments — and, in modern industries, a payment for patents and digital platform fees. This markup multiplied by the quantity sold minus the distribution cost is their *retained profit*. Overheads have differing price elasticities. Wages depend on the bargaining power of workers, which is usually lower than that of employers, hence salaries tend to be easy to freeze/squeeze. In contrast, the overheads related to inherently scarce resources that are necessary for production, i.e. energy (e.g. oil, gas and coal), land and raw materials, or related to sectors that have created artificial monopoly-type conditions, such as the banking sector and industries protected by strong patent legislation, tend to be inelastic. Firms in these ‘rentier’ sectors are in a position to raise prices and increase the overhead on the productive sectors of the economy and thus increase their share of income disproportionately to the value they have created. Consequently, deriving unearned income within the production process can be either due to the possession of a necessary resource or due to certain legal rights (see Hodgson 2015).

Given this, the price markup is firstly determined by the balance of power between capital and labour. Economies with more organised labour markets can push down the markup and increase real wages — and vice versa. Alternatively, as Kalecki (1954 [2011], p. 17) notes, advertising/promotion spending may allow a firm to increase its markup by steering consumers towards its products and away from competitors. This enables the firm to increase its markup above the average markup of the market. That will indeed increase the average final goods price level in the economy.

The emergence of digital platforms has somewhat complicated these dynamics. In contemporary capitalism, traditional advertising, access to information about products and services, and also the circulation of the products themselves, are becoming increasingly digitalised, at least in most advanced economies. As we explore in Section 3.5, this has given digital platforms substantial power over traditional firms due to their control of the circulation and information spheres, enabling them to manipulate consumer choice. They can extract a proportion of the markup as rent in return for the right to use their platforms and/or have producers’ products promoted on their platforms.

On the other hand, the emergence of digital platforms, like Amazon, who offer a full range of warehouse and product distribution services, allows firms to cut some traditional overheads. Typically, such services enable them to decrease land rents and the wage bill since they no longer rely on physical stores and salespeople. However, platforms still typically charge a payment for use of their platform and this payment, whilst possibly initially lower than previous overheads, will become more inelastic the more the platform company is able to dominate a sector. In addition, the more traditional firms start using such services, the more power platforms gain vis-à-vis these firms and the wider value-creating sectors of the economy. This means that they can increase the rent extracted for their services, which, eventually, will raise overhead costs, thus, the total rent income share in the economy.



Given the framework presented above, we can distinguish between three potential scenarios for how rentierisation affects the macroeconomy:

### **Scenario 1: Underconsumption-driven slowdown in accumulation**

In an economy with flexible labour markets and a high degree of labour substitution (such as the UK and US), a rise in overhead costs driven by increasing rents can be counterbalanced by reducing wages. In the short term, the firm remains competitive (i.e. its sales do not fall) and keeps its profit margin unchanged. That keeps retained profits at the same level, and thus the available funds for investment and innovation. However, in the medium term, consumption will decline with declining wages and, with it, effective demand and the incentive for long-term investment and innovation, triggering an underconsumption-driven slowdown in accumulation. This argument has been made in relation to the financialisation of corporate governance in the US as a root cause for rising inequality (Lazonick and O'Sullivan 2000). As wages fell and consumer demand fell, firms increasingly used their profits to invest in short-term financial returns, for example, share buy-backs to maintain their share prices. Here, we extend this rationale to a wider range of rents and not only financial payments.

### **Scenario 2: Profit squeeze-driven slowdown in accumulation**

A rise in overheads related to rents in an economy with a low degree of labour substitution (i.e. in a regulated labour market with low cost of job loss, low underemployment and low unemployment) does not allow industrial capitalists to counterbalance this rise by squeezing wages. Instead, their only short-term option to keep their prices stable and not exit their sector is to limit their profit margins. In this case, in the short term, the firm remains competitive, but its profit margin drops. That leads to less retained profits, and thus less available funds for investment and innovation, triggering a profit squeeze-driven slowdown in accumulation. Therefore, as in the first scenario, rising rents in seemingly competitive product markets with relatively stable prices eventually lead to economic stagnation and macroeconomic instability.

### **Scenario 3: Taming the competition in the product market**

Mainstream theory typically assumes that rising prices will eventually lead the firm with higher prices to exit the sector and the most price-effective ones to survive, assuming perfect information or transitory information asymmetries among consumers and producers. Nevertheless, the question is whether a firm can survive with a higher price, i.e. with stable profit margins and wages, given rising overheads? The digitalisation of modern commercial trade may enable a firm to do this in the short term by influencing consumers' access to information on product differentiation and prices in its sector. Typically, however, as discussed in Section 3.5, this involves an increase in rents paid to a digital platform. Eventually, this can become unsustainable, as paying additional rents further worsens the financial position of the firm in the long run.

A parallel theoretical analysis can be applied to households (outside the aforementioned wage dynamics). The spending power of households (and thus consumption spending) is a function of their living costs, some of which will be to rentier sectors (most obviously energy and heating, shelter and transport). Since these cannot be easily substituted, rising costs in these sectors will

result in falling consumption in more elastically priced sectors with knock-on effects on demand. Typically, the more elastically priced sectors will be value-creating, real economy sectors, hence the sales in these sectors will drop. These effects are macroeconomically significant given that consumption makes up the majority of GDP in most advanced economies; this has been brought into sharp focus with the recent COVID-19 epidemic. Rising rents will also raise relative income inequality since these sectors typically take up a larger fraction of poorer households' outgoings.

In summary, rentier-dominated economies are prone to stagnation. Sooner or later, rising rents will lead to a slowdown in accumulation and a crisis, either due to higher income and wealth inequality and the resulting decline in effective demand, or due to a squeeze in the profits of productive firms (or both). In practice, it is likely that rentierisation will simultaneously hurt retained profits, investment and wages, with the distribution of the burden depending on the balance of power between capital and labour.

---

## **4. Mapping modern economic rents across different sectors**

In this section we employ the framework just outlined to examine how rentier-related overhead costs have become larger during the last decades, burdening the productive sectors of the economy and households. Our analysis is based on both descriptive evidence and a discussion of relevant policy developments over the last decades. Whilst, given the space constraints, the case studies here are far from comprehensive, we hope they can provide a roadmap for future sectoral-level research on rent extraction models, which will inform policies that could reshape these sectors and form the basis for a more inclusive, innovation-led and sustainable economy.

### **4.1 Modern land and finance rents**

The original source of rent identified by Smith (1776), Ricardo (1817) and Marx (1894 [1991]) was land. Ricardo claimed that as the economy grows more land must be used. As land is — by definition — the scarcest factor of production, landowners steadily gain bargaining power, able to charge whatever workers and capitalists can afford to pay. In this respect, land returns become rents, as they do not correspond to the landowners' contribution to production, but to their monopolistic position. As land rents rise relative to incomes and the overall growth of the economy, firms and households will be forced to reduce wages and investment, and consumption, respectively; hence rising land rents can be seen as a case of Scenario 1 or Scenario 2, depending on the structure of the labour market, as outlined in Section 3.

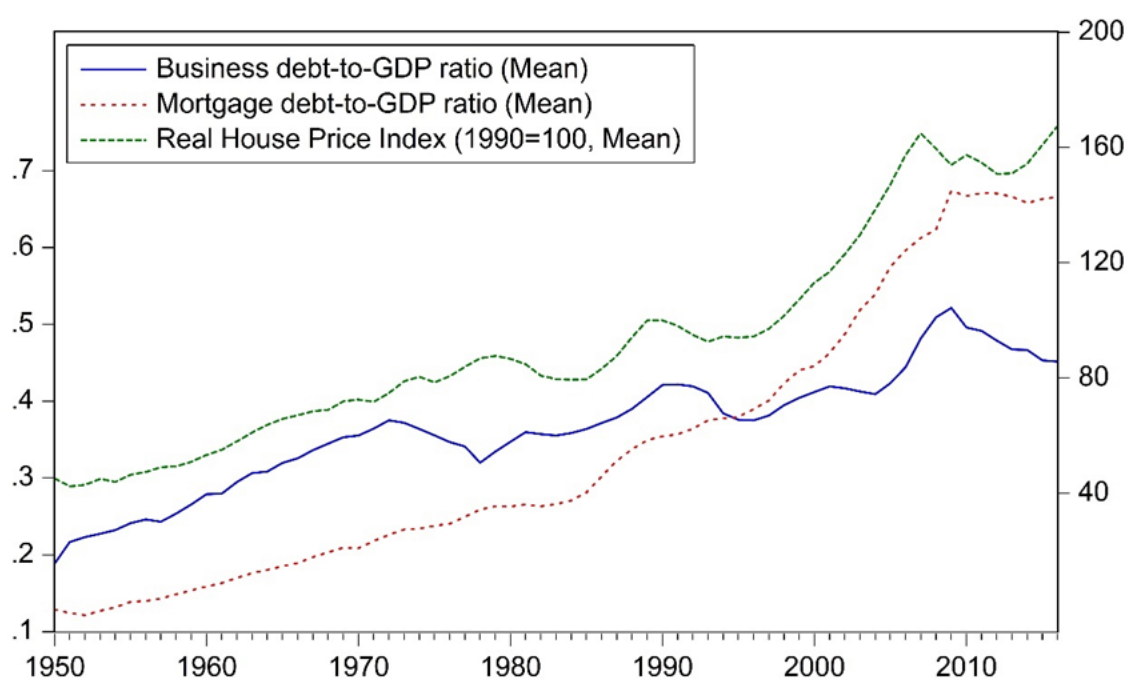
However, land rents today are more complex than at the time the classicals were writing. The growth of widespread homeownership in the 20<sup>th</sup> century beyond wealthy elites constituted democratisation of land rents, as more of the middle class enjoyed wealth gains on their property. But for the last 40 years, house prices, largely driven by land values, have risen at a much faster rate than incomes and consumer prices in nearly all advanced economies (Piketty 2014; Knoll et al 2017; see Figure 1), and levels of homeownership have plateaued and indeed began to fall in many advanced economies (Ryan-Collins 2018). The consequence has been increasing rentier

returns to land- and homeowners in the form of both rising ground rents and capital gains, a housing affordability crisis in many cities, and increasingly large household debts as citizens are forced to borrow more to buy a property.

Policy has supported this process. Taxes on land and (increasing) property values have been reduced relative to other types of financial assets and other forms of tenure as homeownership has become an expectation in advanced economies, making property a highly desirable asset to store and accrue wealth. In addition, from the 1980s onward, deregulation of the banking sector has seen a huge expansion in mortgage lending that has driven up land values and house prices (Ryan-Collins 2018, 2019).

Indeed, today most bank lending in advanced economies involves lending against, or trading, existing assets rather than financing the creation of new productive assets. Figure 1 below shows how, in the 1990s, advanced economy mortgage lending (commercial and domestic) overtook non-mortgage lending (the majority of which is business lending) to reach 70% of GDP, up from just 20% in the 1950s, with house prices following a similar trajectory. In the UK, for example, only around 10% of all bank lending supports non-financial firm investment, with the rest funding real estate or financial asset purchases, pumping up the prices of these assets in the process (Turner 2016).

Figure 1: Private debt ratios and the real house price index (right axis), 1950-2016



Source: Jordà et al. (2016); Knoll et al. (2017)

As property and land prices increase, households and firms need to borrow more to afford them, increasing the demand for mortgage credit further and creating a positive feedback cycle (Ryan-Collins 2018). The interest paid out by households and firms on these ever-larger mortgages can be seen as a form of rent since nothing new or productive is being created out of having higher

land and house prices. These assets could be provided at the same quality at a lower cost to society. The result is a fall in demand as homeowners' spending power is reduced as more of their income is taken up in rising mortgage interest or ground rent payments.<sup>1</sup> Similar dynamics have occurred in the corporate real estate market, although this has been more cyclical and volatile in general. In this case, rising corporate land rents obviously increase the overhead cost for the firm with knock-on effects on wages and demand.

Institutional investor-finance has also been channelled into real estate via the creation of mortgage-backed securities and related financial innovations. Again, in most cases, this has just served to further inflate existing land values rather than support any form of productive activity. These innovations were made possible by financial deregulation in the 1980s and 1990s, driven by the desire to secure higher levels of homeownership, as well as financial sector lobbying. This market was co-shaped by policy decisions.

How then might we identify these rents to enable more enlightened, value-creating policy decisions? Disaggregating bank lending into loans that are more productive and less productive, and then calculating the interest and fees to these different sectors, is one option. 'Productive' could be defined to include all non-financial business lending, for example, following the distinction used by central banks and by a number of recent studies which have analysed the effect of bank lending on growth and financial instability (Schumpeter 1934; Werner 2005; Bezemer et al 2016; Jorda et al 2016).

Once identified, policy could seek to disincentivise non-productive lending (for example loans for the purchase of existing housing) and incentivise business lending, for example via forms of credit guidance and control (Bezemer et al 2018). But, as noted in Section 3.3 below, an increasing proportion of non-financial lending is used for the purchase of financial assets, including share buy-backs, and mergers and acquisitions, so further disaggregation that examines what non-financial firms do with bank loans would ideally be needed.

Beyond the financial sector, reforms to the land market itself to reduce the speculative (rentier) demand for properties are required. It is notable that, despite the general tendency of rising land rents and house prices, there are exceptions which show it is possible to provide housing and other forms of shelter at the same quality at a lower cost to society. Some successful advanced economies — Germany, South Korea and Singapore — have seen house- and land-price to income ratios remain flat or even fall since the 1980s. Notably, in South Korea and Singapore land is owned or controlled to a much greater extent by the state (in Singapore 90% of the land is publicly owned), meaning the land rents are effectively socialised and can be used to support more affordable housing (Haila 2015). Germany has much lower levels of private homeownership (around 60%) than the advanced economy average and greater tenure neutrality with much stronger rights for renters.

---

<sup>1</sup> Historically low interest rates over the past two decades have somewhat ameliorated annual debt-servicing costs of households in advanced economies. However, low rates have increased the ability of households to take on more debt and thus increased total debt-to-income ratios, principal repayments and property prices, so the overall effects on demand are still likely to have been negative.

Notable also in Germany and Korea is the presence of a more diverse banking system. Whilst in countries such as the UK, commercial shareholder banks dominate, in the former, there is a strong public and cooperative banking presence. This includes large state investment banks that lend to sectors aligned with industrial and economic policy goals, as well as cooperative and local banks where strong relationships with borrowers enable banks to de-risk their lending rather than relying on property-based collateral, as has been the case for shareholder banks (Ferri et al 2014; Ryan-Collins 2018). These institutional and policy differences in how the state shapes financial and land markets merit further investigation in understanding how we might reduce land and financial rents, and help reverse rising household debt and the consequent drag on consumer demand.

## 4.2 Natural resource rents and climate change

The early classicals defined land in a broad sense, implicitly or explicitly including the ownership of natural resources. A broader definition of land encompasses natural resources — energy, water, carbon sinks, ecosystems — that are equally vital for capitalist production and human survival. Unlike land as locational space, which can be reused for different purposes through time, non-renewable natural resources can be — and indeed are being — exhausted. Thus, ownership of such a scarce resource assigns substantial monopoly power and the opportunity for significant rentier income. Increasing natural resource rents flowing to private actors will indeed increase the overhead costs of production, which as described in the previous section are likely to cause a slowdown in accumulation, due to either supply- or demand-side reasons.

Natural resources may be a blessing or a curse, depending very much on the interaction between the state and market. Certain countries, such as Norway, have used resource rents to develop sovereign wealth funds that support high levels of public welfare and play a market-shaping role in supporting sustainable investment in productive activity. However, for some advanced, and many developing, countries, the ownership of natural resources in a globalised world has not led to increased welfare (for a survey see Frankel (2010)), but to rising rents and exploitation. For example, the large oil sector in Africa has been a curse, since weak political institutions and globalisation have led domestic corporate trusts and multinational corporations to monopolise these rents with minor — if any — economic benefits for domestic populations (Duruigbo 2005). Similarly, oil-rich countries in the Middle East have seen the emergence of ‘the rentier state’, whereby a small political elite absorbs the bulk of profits from oil excavation (Beblawi and Luciani 2015). Thus, the socialisation of resource rents is not always the obvious policy solution, since it depends on having well-established political and democratic institutions.

Climate change creates important new questions for how we think about resource rents. An energy company (whether state-owned or private) that generates rentier profits from its control over oil extraction in a particular country can be seen to be extracting value not just from the natural wealth of that country or region in the present (assuming it does not redistribute them in an equitable manner). Simultaneously, it is also reducing the welfare of future generations at an international level, since climate change has global impacts. Conversely, rents generated from the production of renewable energy might be seen as highly desirable, in particular in the short term, as a means of supporting the rapid decarbonisation of the economy and investment in green energy innovation. Indeed, in countries like Germany, a key part of the successful transition to

clean energy has been active government intervention and subsidies for cleaner production in sectors like steel and gas (Mazzucato 2015). Rather than blanket policies to reduce natural resource rents, policymakers thus need to direct markets towards more sustainable models where transient rents may be needed in the short term to support innovation.

### 4.3 Shareholder rents and the financialisation of corporate governance

Since the 1980s, the shift towards shareholder value maximisation as the dominant form of corporate governance has led to increasing rents in parts of the non-financial corporate sector. This has become possible through certain legal reforms, which promoted the liberalisation of finance and allowed restructuring within the corporate governance system of non-financial firms. Companies are not owned by a single person or small group of industrial capitalists any more, but by a more diffuse group of shareholders with interests not necessarily aligned with those of the firm's direct management. In particular, modern shareholders (or more precisely the funds that manage shares) have come to place a strong emphasis on the short-term value of the companies' share price above and beyond long-term investments (Lazonick and O'Sullivan 2000; Haldane 2011). This has led to firms' profits being spent on pumping up stock prices via share buy-backs, and mergers and acquisitions.

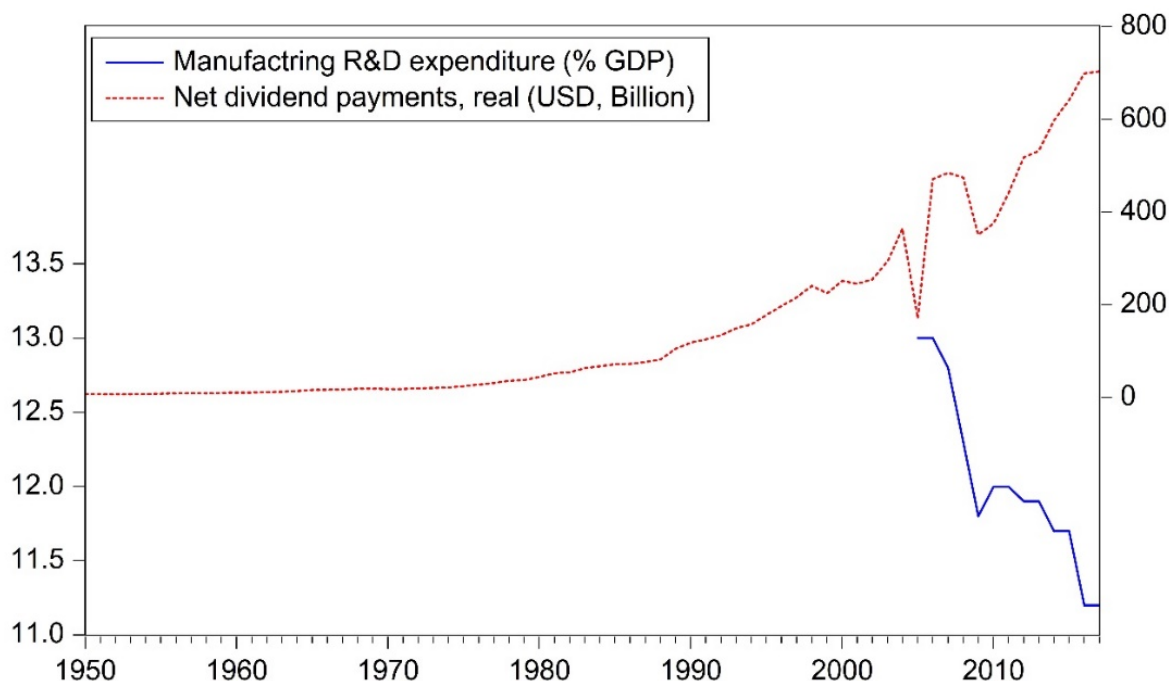
In the USA, for example, over the decade 2006–2017, net equity issues of non-financial corporations averaged -\$412 billion per year (Lazonick 2018), meaning more money went into the stock market than was taken out. Again, the financial sector played a key role here. A recent study found that more than *half* of all buy-backs in the USA are now funded by debt (Light 2019). In effect, this is credit creation for directly inflating financial assets (share prices). The capital gains from increasing stock prices due to share buy-backs, or mergers and acquisitions activity, adds nothing of value to the real economy — it is economic rent.

The process runs as follows. Shareholders put pressure on firm managers to keep share prices high since this leads to the maximisation of their income from dividend payments. If demand for shares is not sufficient to keep share prices high, firm managers increase corporate debt ratios in order to buy back shares as a means of boosting demand, hence the level of share prices. Accordingly, the distribution of a firm's revenue is divided into (i) dividend payments to the shareholders; (ii) corporate debt payments to the commercial banks; and (iii) final retained profits.

As the financial position of firms worsens due to the rising corporate debt ratios needed to maintain high share prices and dividend payments, firm managers (in countries with flexible labour markets) will squeeze wages as a means of decreasing costs. In a similar way, aggressive mergers and acquisitions (again often funded by debt leveraging) or private equity takeovers often involve 'asset stripping' activities that enhance the short-term efficiency of the firm but involve job losses and wage cuts — as well as increases in debt — that ultimately reduce the long-term viability of the firm. From a macroeconomic perspective, this results in an additional decrease in consumption, and thus in effective demand, investment and innovation, inducing a steeper value extraction-driven slowdown in accumulation.

As shown in Figure 2, net dividend payments by non-financial corporations, i.e. the rentier income of shareholders, in the USA have increased rapidly since the mid-1980s (right axis). Simultaneously, the manufacturing expenditure on R&D (as a share of the GDP) has declined sharply since the mid-2000s (left axis). This pattern shows clearly the shift of non-financial firms' objectives from investment and innovation (value creation) to rent maximisation in the early 21<sup>st</sup> century.

Figure 2: Net dividend payments (left-hand scale) and manufacturing R&D (right-hand scale) — USA, 1945-2017



Source: BEA, NIPAs; FRED

What are the questions shareholder value primacy raises for understanding modern economic rents? To answer this question we have to look at shareholders' rents and corporate banking rents separately. First, shareholder dividends, like land rents, are about extracting value from existing assets, in this case, the company's share price. As noted, these can be increased through share buy-backs, funded from either profits, bank borrowing or the issuance of corporate bonds. Where borrowing occurs there is clearly a parallel with mortgage debt asset price inflation.

Accordingly, debt-fuelled dividend payments are indeed rents, as they are a reward without a contribution to the production or the circulation process. Simultaneously, firms have to decrease their productive spending, i.e. long-term investment and R&D expenditures (Scenario 2 in Section 3), to repay the loans they signed to fuel the shareholder bubble. Thus, they limit further the productive capacity of the economy. Second, corporate banking rents (that is interest payments on corporate loans), in principle, could either foster or discourage innovation, depending on where the credit goes. If firms use debt to fund long-term productive investment, this can support value



creation and profitability. In this scenario, interest payments to commercial banks might indeed be seen as a reward to banks for acting patiently and taking risks by investing in long-term investment projects. More research is needed on what non-financial firms actually use bank credit for in advanced economies.

#### 4.4 Innovation and patent rents

Schumpeter's (1942) notion of technology rents as an incentive for innovation and growth has significant explanatory power for the dynamics of research and development expenditures. New technologies lead to product differentiation and, thus, to short-term monopolistic gains until the new technology diffuses. That creates an incentive for other firms to become R&D-intensive to earn such short-term rents in the future, hence innovation fosters competition, which fosters further innovation.

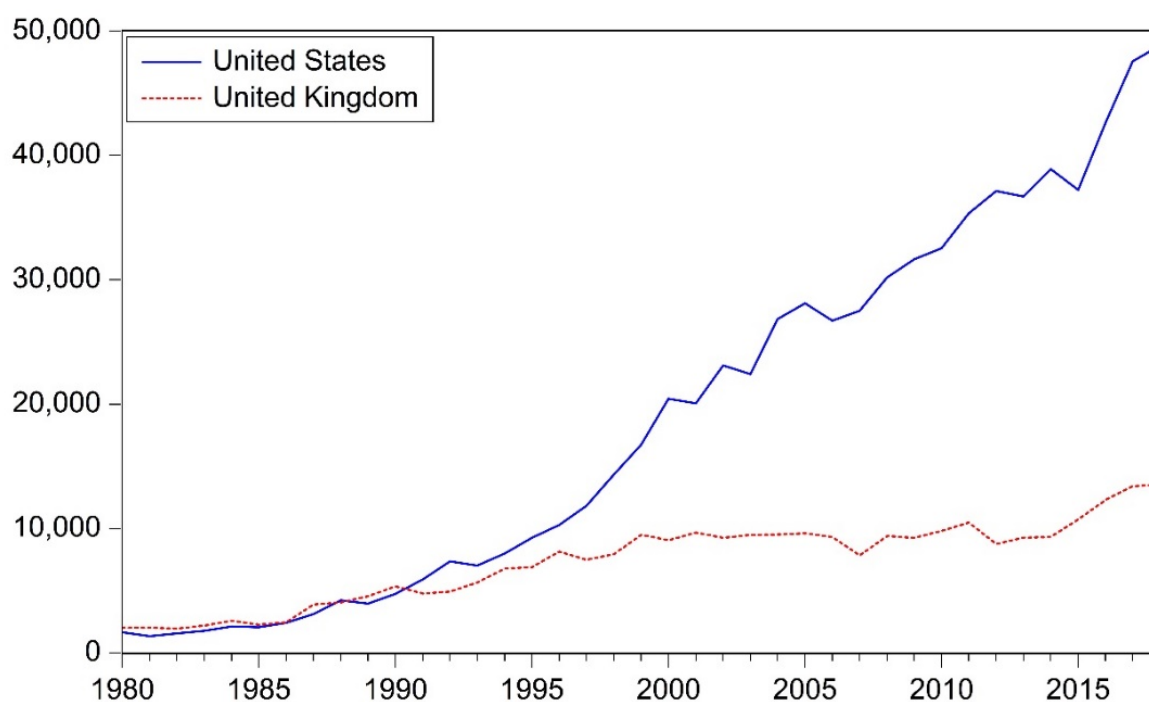
Patents are traditionally justified politically as incentivising the efforts of entrepreneurs by enabling them to appropriate the rewards — the Schumpeterian rents — from their innovation. Nevertheless, for patents to stimulate innovation they should be narrow (limited to the downstream part of the innovation chain relevant to the new invention) and weak (easily licensable), not strong and wide (Mazzoleni and Nelson 1998). Instead, in practice they are too strong and wide, impeding innovation and leading to what Baumol (1990) called 'unproductive entrepreneurship'.

According to the World Intellectual Property Organization (WIPO), patents are generally granted for a period of 20 years, with the minimum being 14 years for design patents (1995 Act). The average duration of patents is so long that it acts as a disincentive for investment since once a firm innovates and the patent is granted, it secures income from it for approximately two decades. Simultaneously, competitor firms have to pay fees to use these patents, decreasing the funds available for their own R&D expenditure. Thus, we may conclude that much patent income since the mid-1990s is indeed a rent. In this respect, long-lasting patents do not reward long-term investment and innovation, but, instead, protect those who do not take further risks after they successfully innovate once.

According to the rent-seeking theory, patents create rents only if they lead to higher prices. However, clearly, the monopoly rents arising from patents may harm the economy even when prices remain unchanged. Similar to our analysis of natural resource rents, patent payments are part of the economy's overhead costs (although not all firms will, of course, require patented commodities). Therefore, firms can attempt to remain competitive (i.e. not increase their prices) by suppressing wages or by decreasing their profit margins. In both cases, this could trigger a slowdown in accumulation and investment, either due to the demand effects of higher inequality or due to less retained profits (given that these get reinvested), respectively. As reported in Figure 3, aggregate patent rents have been rising both in the USA and the UK since the early 1990s, but substantially more rapidly in the former. Given this stylised fact, it is key for our understanding of the dynamics of innovation that future research tests whether the patentisation of innovation has indeed contributed to stagnation, either by squeezing profit margins or wages.



Figure 3: Charges for the use of intellectual property, payments (BoP, 2010 USD, Bn), 1980-2018



Source: World Bank

## 4.5 Platform capitalism and digital rents

The recent growth of digital platform monopolies, and their rising influence over the circulation sphere, has raised concerns about rent extraction in the real economy (Langley and Leyshon 2017; Sadowski 2020; Mazzucato et al 2020). According to the positive network externalities framework, the larger the number of users in a platform, the lower the price to the consumer should be (Katz and Shapiro 1985). In reality, because of important network effects, digital platforms — once they reach a critical size and number of users — experience *increasing*, rather than decreasing, marginal returns (Langley and Leyshon 2017; Srnicek 2017; Zuboff 2019). Digital platforms act as intermediaries between the producer and the consumer, charging a fee over the final price. While they may aid product circulation in some cases, supporting exchange and economic growth, the fee charged to the producer for access to the platform is non-productive income, as it is determined largely by market power and it does not add anything to the value of the final product.

While the prices of final goods and services may be reduced via digital intermediation and circulation, the more popular a platform becomes the more it can increase its income share by squeezing producers' income via charging fees and other aggressive policies (O'Reilly 2019). In this sense, while consumers may get products at relatively stable or lower prices, producers' profits may decline, and thus their incentive to re-invest and innovate. Consumers may appear to gain in the short term by having a greater choice on one easy-to-access platform, but, eventually, they may suffer from low quality and diminishing variety of choices as competing firms are forced to exit the market due to falling profits.

Platforms like Uber and Lyft, which have become monopolies within their sector, extract approximately 25-35 per cent of the total fare on average (Mishel 2018; Mehrotra and Gordon 2019; Rapier 2019). Independent professionals have to pay fees to be included in these platforms, since, otherwise, they will not be able to access sufficient customers to compete in the market. Yet, no ostensible value is added to the economy during these processes. Somewhat paradoxically, the value these platforms create in terms of connecting together users in new networks is not captured in the national accounts, partially because there is nothing to 'count' since users give up their information free of charge. Thus, the commodification of personal information — and indeed services in the 'sharing economy' — is a source of economic rents.

Amazon provides an example of a related form of rentierism. Acting as an intermediary for companies that do not have the capacity to distribute their own product, Amazon charges a fee to store and ship a company's products from its own warehouses, on-demand, via its Sold by Amazon (SBA) platform (Milnes 2019). The SBA system also offers an additional service: automatic dynamic price adjustment, i.e. Amazon lowers or increases the price of the goods of certain sellers based on their competitors' pricing decisions, in order to keep them competitive. Amazon extracts rent as a fee to join SBA in return for 'selling' its access to data on competitors' pricing strategies and conducting dynamic price adjustment according to this information. Amazon effectively utilises its monopoly power over product distribution and pricing data to provide an additional service as an uncertainty and competition 'minimiser' for those who join SBA. That gives us two types of digital rents: (i) paid-for product distribution services; and (ii) paid-for access to data on competitors' decisions/strategies.

Using Amazon's online fees calculator,<sup>2</sup> we find that for a company that sells a total number of 100 products (in our example, books) with an average price of £10, the total amount paid by the customers is £1400 and the final revenue to the producer is £1140, leaving Amazon with a rent of £260 (or 22%). This calculation does not include the monthly subscription fee of £25 (excluding VAT) per month, the VAT charges or any other service fees, such as the SBA fees. Simultaneously, Amazon has also itself become a producer for a wide variety of products, which constitutes a major conflict of interest, since it has become the product distributor of its own competitors (Edelman 2019). This allows it to tame competition by charging fees that Amazon itself does not have to pay for its own-brand products and extend its monopoly power from the circulation sphere to the product market. This is similar to the algorithmic rent extraction model of Apple's App Store (Nicas and Collins 2019).

Another interesting example of digital rentierism is Google, which has established a global monopoly on information distribution through the popularity of its search engine and, at the same time, become a digital advertising monopolist. From a producer's perspective, while being included in Google search results is free, Google charges a fee for 'promotion' to a higher position in the search results (O'Reilly 2019). Clearly, such a fee constitutes rentier income, as Google is exploiting its market power to extract payment without offering a specific service other than discriminating between users who pay and users who do not. Again, the ordering 'work' is done via relatively costless algorithms. From a consumer's perspective, productive firms also tend to use

---

<sup>2</sup> <https://services.amazon.co.uk/services/sell-online/pricing.html>

such digital services to steer customers in more profitable directions. A typical example is the income foregone by customers who are entitled to free tax filing services, but who do not have sufficient information on their rights. Elliot (2019) demonstrates that customers commonly end up paying for expensive tax filing services they do not need, as tax filing companies promote online specific high-cost services, limiting indirectly the access to essential information on free services.

Digital tech companies appear to offer subsidised or free services to users. In fact, they are making money essentially by enabling advertisers to reach their target audience more quickly by selling freely provided information on their users that can help predict their future activities. Zuboff (2019) has described this as the creation of a 'behavioural surplus' since it is virtually costless to the platform company to collect, process and share such data by using increasingly sophisticated machine-learning and algorithms. The fees they charge to advertisers are included in GDP figures — but the information freely provided by users is not.

Overall, the rise of platform capitalism constitutes a key element of the contemporary rentierisation process. What makes this specific sector unique, as compared to other rentier sectors, is that firms within it have increasingly dominated the circulation of products and information, enabling them to extract rents via the monetisation of freely-given information from consumers and by charging producers a fee for the use of their increasingly monopolistic platforms, bearing down on their profits. Whilst this value extraction process may not result in a higher aggregate price level, the restructuring of overhead costs may well increase the rent share at the expense of the wage and profit shares, triggering stagnation (Scenarios 1 and 2 in Section 3) in the long term. Given the recent emergence of digital technology platforms, a research programme is needed to test these hypotheses empirically, in this sector perhaps more than any other.

---

## 5. Conclusion and discussion

As Marx noted on the necessity of a theory of economic rent: 'Without this, our analysis of capital would not be complete' (Marx 1894 [1991], chapter 37). The aim of this paper was to provide a more sophisticated understanding of modern economic rents and a roadmap for future research on rents at a time when there is widespread concern that capitalism has become 'rigged' in favour of an ever-smaller business and financial elite (Wolf 2019). We have argued that the dominant mainstream theoretical and policy approach to economic rents, focussed on prices being pushed above equilibrium levels is of limited use in understanding modern developments, as it overlooks the fact that rentierisation can induce income redistribution between factors of production (capital, labour and land) without price increases.

We have defined economic rent as income earned in excess of the reward corresponding to the contribution of a factor of production to value creation (see Lazonick and Mazzucato 2013). This can be due to the ownership and exploitation of a scarce asset; the creation of monopolistic conditions in a particular sector; or policy decisions that favour directly or indirectly a specific group or interest. This definition can be seen to encompass the dominant (in policy circles) mainstream approach, which views rents as the differential between the actual and equilibrium

price caused by market imperfections (Philippon 2019). Adapting a Kalecki-inspired markup pricing approach, we have demonstrated that rising rents drive up overhead costs and lead to a redistribution of income between factors of production, rather than necessarily to rising final goods prices. Our hypothesis is that when rentier intermediary sectors come to dominate the economy, wages and investment in productive activity and innovation tend to decline, leading to rising inequality and economic stagnation.

We then examined modern economic rents in a number of key sectors and considered how they affect the overhead costs of productive firms and households. These included land, finance, natural resources, patents, corporate governance and the digital sector. This mapping exercise, whilst limited in scope and depth, demonstrates how rentier sectors have come to dominate some of the most important areas of the economy. The consequence is that the cost structure of the economy is elevated to an artificially high level, with some forms of economic rent threatening our economic and social well-being (land rents rendering housing unaffordable in cities), our physical existence (non-renewable resource rents) and our democratic right to access vital information without imposed barriers (digital rents).

Whilst the classicals identified landowners as the key rentier class and Keynes targeted the financial sector, our review suggests that contemporary rentierism is a pervasive phenomenon, with different rent-extraction business models existing in different sectors and social classes with diverse interests. This complements recent efforts to redefine notions of class given the increasing importance of asset ownership to opportunity (Piketty 2014; Adkins et al 2019). For example, middle-class households invest in housing as a financial asset, either enjoying windfall capital gains (as primary residences are typically not taxed) or rising ground rents if they become landlords. By taking an Uber taxi ride or ordering a good on Amazon, we, as consumers, are supporting and benefiting from a digital rent-extraction model that may lead to job losses and stagnating demand. The dynamics likely make policy reform challenging as the identification of interests across socio-economic groups becomes more complex, and diverse coalitions between middle-income households and elite rentiers form.

This paper hopefully opens up a new research agenda focussed on better defining and mapping modern economic rents beyond the dominant mainstream paradigm and, in doing so, developing policies better equipped to deal with them. Future research should naturally seek to empirically test how different overhead cost structures influence investment, innovation and wages in the context of economies with different institutional structures due to varying property and legal rights. In order that policy proposals that come out of this are realistic, more in-depth case-study research is also needed to flesh out rentier business models in greater detail. This applies not least to the digital sector, where new kinds of rentier business models are becoming increasingly significant at both national and international levels.

---

## References

- Baiman, R. (2014). Unequal exchange and the rentier economy. *Review of Radical Political Economics*, 46(4), pp. 536–57.
- Baumol, W.J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, 98 (5), pp. 893–921.
- Beblawi, H. and Luciani, G., eds. (2015). *The Rentier State*. Routledge.
- Boyer, R. (2000). Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis. *Economy and Society*, 29 (1), pp. 111–145.
- Brezis, E.S. and Cariolle, J. (2018). The revolving door, state connections, and inequality of influence in the financial sector. *Journal of Institutional Economics*, 15(4), pp. 595–614.
- Christophers, B. (2013). *Banking Across Boundaries: Placing Finance in Capitalism*. John Wiley & Sons.
- Christophers, B. (2019). The rentierization of the United Kingdom economy. *Environment and Planning A: Economy and Space*. DOI: <https://doi.org/10.1177/0308518X19873007>.
- Clark, J.B. (1891). Distribution as determined by a law of rent. *Quarterly Journal of Economics*, 5(3), pp. 289–318.
- Deleidi, M., Mazzucato, M. and Semieniuk, G. (2019). Neither crowding in nor out: Public direct investment mobilising private investment into renewable electricity projects. *Energy Policy*, 140. DOI: <https://doi.org/10.1016/j.enpol.2019.111195>
- Duruigbo, E. (2005). The World Bank, multinational oil corporations, and the resource curse in Africa. *University of Pennsylvania Journal of International Economic Law*, 26, pp. 1–67.
- Edelman, F. (2019). Amazon doesn't favor its own brands—except when it does. Retrieved from: <https://www.wired.com/story/amazon-gating-private-labels-antitrust/>
- Elliott, J. (2019). TurboTax deliberately hid its free file page from search engines. Retrieved from: <https://www.propublica.org/article/turbotax-deliberately-hides-its-free-file-page-from-search-engines>
- Epstein, G. A. and Jayadev, A. (2005). The rise of rentier incomes in OECD countries: financialization, central bank policy and labor solidarity. *Financialization and the World Economy*, 39, pp. 46–74.
- Frankel, J.A. (2010). *The Natural Resource Curse: A Survey*. Paper No. w15836. *National Bureau of Economic Research*.
- Goerres, A. and Höpner, M. (2014). Polarizers or landscape groomers? An empirical analysis of party donations by the 100 largest German companies in 1984–2005, *Socio-Economic Review*, 12(3), pp. 517–544.
- Haila, Anne. (2015). *Urban Land Rent: Singapore as Property State*. John Wiley & Sons.
- Haldane, A. (2011). The Short Long. Speech given to the 29th Société Universitaire Européenne de Recherches Financières Colloquium, Brussels, 11 May 2011, Bank of England. Accessible online at: <https://www.bankofengland.co.uk/speech/2011/the-short-long-speech-by-andy-haldane>
- Harberger, A.C. (1954). Monopoly and resource allocation. *The American Economic Review*. 44 (2): pp. 77–87
- Hodgson, G.M. (2015). Much of the 'economics of property rights' devalues property and legal rights. *Journal of Institutional Economics*, 11(4), pp. 683–709.
- Hudson, M. and Bezemer, D. (2012). Incorporating the rentier sectors into a financial model. *World Social and Economic Review*, 1, pp. 1–12.
- Jordà, Ò., Schularick, M. and Taylor, A.M. (2016). The great mortgaging: housing finance, crises and business cycles. *Economic Policy*, 31(85), pp. 107–152.
- Kalecki, M. (1954 [2011]). *Theory of Economic Dynamics*. New York: Monthly Review Press.
- Katz, M.L. and Shapiro C. (1985). Network externalities, competition, and compatibility. *American Economic Review* 75, pp. 424–40.
- Keynes, J.M. (1936). *The General Theory of Employment, Interest, and Money*. London, UK: Macmillan.
- Knoll, K., Schularick, M. and Steger, T. (2017). No price like home: Global house prices, 1870–2012. *American Economic Review*, 107(2), pp. 331–53.
- Krueger, A. (1974). The political economy of the rent-seeking society. *American Economic Review*, 64, pp. 291–303.

- Langley, P., and Leyshon, A. (2017). Platform capitalism: the intermediation and capitalisation of digital economic circulation. *Finance and Society*, 3(1), pp. 11–31.
- Lazonick, W. (2018). The functions of the stock market and the fallacies of shareholder value. In: C. Driver and G. Thompson, eds., *Corporate Governance in Contention*. Oxford: OUP.
- Lazonick, W., and Mazzucato, M. (2013). The risk-reward nexus in the innovation-inequality relationship: who takes the risks? Who gets the rewards? *Industrial and Corporate Change*, 22(4), pp. 1093–1128.
- Lazonick, W., and O'Sullivan, M. (2000). Maximizing shareholder value: A new ideology for corporate governance. *Economy and Society*, 29 (1), pp. 13–35.
- Light, L. (2019). More than half of all stock buybacks are now financed by debt. Here's why that's a problem. *Fortune*, 20 August 2019. Available at: <https://fortune.com/2019/08/20/stock-buybacks-debt-financed>
- Marshall, A. (1890). *Principles of Economics*. London, UK: Macmillan
- Marx, K. (1894 [1991]). *Capital: Volume III*. London, UK: Penguin.
- Mazzoleni, R. and Nelson, R.R. (1998). Economic theories about the benefits and costs of patents. *Journal of Economic Issues*, 32 (4), pp. 1031–1052.
- Mazzucato, M. (2013). *The Entrepreneurial State*. London, UK: Anthem Press.
- Mazzucato, M. (2015). The green entrepreneurial state. In: Scoones, I., Newell, P. and Leach, M., eds., *The Politics of Green Transformations*. London: Routledge.
- Mazzucato, M. (2018). *The Value of Everything*. London, UK: Penguin.
- Mazzucato, M. and Roy, V. (2019). Rethinking value in health innovation: from mystifications towards prescriptions. *Journal of Economic Policy Reform* 22.2 (2019): pp. 101–119.
- Mazzucato, M., Entsminger, J. and Kattel, R. (2020). *Public Value and Platform Governance*. IIPP Working Paper No. WP2020-11.
- McMenamin, I. (2012). If money talks, what does it say? Varieties of capitalism and business financing of parties. *World Politics*, 64(1), pp. 1–38.
- Mehrotra, D. and Gordon, A. (2019). Uber and Lyft take a lot more from drivers than they say. Retrieved from: <https://jalopnik.com/uber-and-lyft-take-a-lot-more-from-drivers-than-they-sa-1837450373>
- Milnes, H. (2019). 'A slippery slope': Amazon wants to control third-party sellers' product pricing. Retrieved from: <https://www.modernretail.co/platforms/a-slippery-slope-amazon-wants-to-control-third-party-sellers-product-pricing/>
- Mishel, L. (2018). Uber and the labor market: Uber drivers' compensation, wages, and the scale of Uber and the gig economy. *Economic Policy Institute*, 15.
- Moberg, L. (2015). The political economy of special economic zones. *Journal of Institutional Economics*, 11(1), pp. 167–190.
- Nicas, J. and Collins, K. (2019). How Apple's apps topped rivals in the App Store it controls. Retrieved from: <https://www.nytimes.com/interactive/2019/09/09/technology/apple-app-store-competition.html>
- O'Reilly, T. (2019). Antitrust regulators are using the wrong tools to break up Big Tech. Retrieved from: <https://qz.com/1666863/why-big-tech-keeps-outsmarting-antitrust-regulators/>
- Philippon, T. (2019). *The Great Reversal*. Cambridge, MA: Harvard University Press.
- Piketty, T. (2014). *Capital in the 21 Century*. Goldhammer, A. trans., *Belknap Press*.
- Posner, R.A. (1975). The social costs of monopoly and regulation. *Journal of Political Economy*, 83 (4), pp. 807–827.
- Rapier, G. (2019). Uber and Lyft drivers are planning a massive strike this week over work conditions and pay rates. Retrieved from: <https://www.businessinsider.com/uber-and-lyft-strike-protest-drivers-planning-to-over-pay-rates-2019-5?r=US&IR=T>
- Ricardo, D. (1817). *On the Principles of Political Economy and Taxation*. London, UK: J. Murray.
- Ryan-Collins, J. (2018). *Why Can't You Afford a Home?* Cambridge, UK: Polity.
- Ryan-Collins, J. (2019). Breaking the housing-finance cycle: Macroeconomic policy reforms for more affordable homes. *Environment and Planning A: Economy and Space*, 0308518X19862811.

- Ryan-Collins, J., Lloyd, T. and Macfarlane, L. (2017). *Rethinking the Economics of Land and Housing*. London: Zed Books.
- Schumpeter, J.A. (1942). *Capitalism, Socialism and Democracy*. New York: Harper & Row.
- Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*, London, UK: W. Strahan and T. Cadell.
- Srnicek, N. (2017). *Platform Capitalism*. John Wiley & Sons.
- Stiglitz, J. (2019). *People, Power, and Profits: Progressive Capitalism for an Age of Discontent*. Penguin UK.
- Stiglitz, J.E. (2016). New theoretical perspectives on the distribution of income and wealth among individuals. In: Basu, K. and Stiglitz, J.E., Eds., *Inequality and Growth: Patterns and Policy*. London: Macmillan.
- Tullock, G. (1967). The welfare costs of tariffs, monopolies, and theft. *Economic Inquiry*, 5(3), pp. 224–232.
- Wessel, R.H. (1967). A note on economic rent, *American Economic Review*, 57(5), pp. 1221–1226.
- Wicksteed, P.H. (1914). The scope and method of political economy in the light of the 'marginal' theory of value and of distribution. *The Economic Journal*, 24(93), pp. 1–23.
- Wolf, M. (2019). Why rigged capitalism is damaging liberal democracy. Retrieved from <https://www.ft.com/content/5a8ab27e-d470-11e9-8367-807ebd53ab77>
- Zuboff, S. (2019). *The Age of Surveillance Capitalism*. London: Profile Books.

## The IIPP Working Paper and Policy Report series

- IIPP WP 2017-01 [Mission-Oriented innovation policy: Challenges and opportunities](#). Mariana Mazzucato
- IIPP WP 2017-02 [Thinking about technology policy: 'Market Failures' versus 'Innovation systems'](#). Richard R Nelson
- IIPP WP 2017-03 [Technological capacity in the public sector: the Case of Estonia](#). Veiko Lember, Rainer Kattel, Piret Tõnurist
- IIPP WP 2017-04 [Rethinking value in health Innovation: From mystification towards prescriptions](#). Mariana Mazzucato, Victor Roy
- IIPP WP 2017-05 [Patient strategic finance: Opportunities for state investment banks in the UK](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2018-01 [State investment banks and patient finance: An international comparison](#). Laurie Macfarlane, Mariana Mazzucato
- IIPP WP 2018-02 [Putting austerity to bed: Technical progress, aggregate demand and the supermultiplier](#). Matteo Deleidi, Mariana Mazzucato
- IIPP WP 2018-03 [The bit and the rainforest: Towards the evolutionary theory of policy capacity](#). Erkki Karo, Rainer Kattel
- IIPP WP 2018-04 [Financing green growth](#). Semieniuk Gregor, Mariana Mazzucato
- IIPP WP 2018-05 [Mission-oriented innovation policy and dynamic capabilities in the public sector](#). Rainer Kattel, Mariana Mazzucato
- IIPP WP 2018-06 [The economics of change: Policy and appraisal for missions, market shaping and public purpose](#). Rainer Kattel, Mariana Mazzucato, Josh Ryan-Collins, Simon Sharpe
- IIPP WP 2018-07 [Movements with missions make markets](#). Charles Leadbeater
- IIPP WP 2018-08 [Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century](#). Josh Ryan-Collins, Frank van Lerven
- IIPP WP 2018-09 [Estonia's digital transformation: Mission mystique and the hiding hand](#). Rainer Kattel, Ines Mergel
- IIPP WP 2018-10 [The people's prescription: Re-imagining health innovation to deliver public health](#). UCL Institute for Innovation and Public Purpose, Stop Aids, Just Treatment, Global Justice Now
- IIPP WP 2018-11 [Credit where it's due: A historical, theoretical and empirical review of credit guidance policies in the 20th century](#). Dirk Bezemer, Josh Ryan-Collins, Frank van Lerven and Lu Zhang
- IIPP WP 2019-01 [Supermultiplier, innovation and the ecosystem: A stock-flow dynamic model](#). Matteo Deleidi, Riccardo Pariboni, Marco Veronese Passarella
- IIPP WP 2019-02 [A mission-oriented framework for the Scottish National Investment Bank](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2019-03 [A framework for mission-oriented innovation policy roadmapping for the SDGs](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2019-04 [A Mission-Oriented UK Industrial Strategy](#). UCL Commission for Mission-Oriented Innovation and Industrial Strategy (MOIIS)
- IIPP WP 2019-05 [Putting value creation back into 'public value': From market fixing to market shaping](#). Mariana Mazzucato, Josh Ryan-Collins
- IIPP WP 2019-06 [The macroeconomic impact of government innovation policies: A quantitative assessment](#). Matteo Deleidi, Vincenzo De Lipsis, Mariana Mazzucato, Josh Ryan-Collins, Paolo Agnolucci



- IIPP WP 2019-07 [Financial and legal barriers to the creation and operation of a British national investment bank](#). Rob Calvert  
Jump, Natalya Naqvi
- IIPP WP 2019-08 [Public investment fiscal multipliers: An empirical assessment for European countries](#). Matteo Deleidi,  
Francesca Iafrate, Enrico Sergio Levrero
- IIPP WP 2019-09 [Socialising the risks and rewards of public investments: Economic, policy and legal issues](#). Andrea Laplane,  
Mariana Mazzucato
- IIPP WP 2019-10 [Neither crowding in nor out: Public direct investment mobilising private investment into renewable electricity projects](#). Matteo Deleidi, Mariana Mazzucato, Gregor Semieniuk
- IIPP WP 2019-11 [Social structures of accumulation in Greece, 1980-2014](#). Angeliki Papadopoulou, Giorgos Gouzoulis
- IIPP WP 2019-12 [Innovation bureaucracies: How agile stability creates the entrepreneurial state](#).  
Rainer Kattel, Wolfgang Drechsler, Erkki Karo
- IIPP WP 2019-12 [Innovation bureaucracies: How agile stability creates the entrepreneurial state](#).  
Rainer Kattel, Wolfgang Drechsler, Erkki Karo
- IIPP WP 2019-13 [Climate-related financial policy in a world of radical uncertainty: Towards a precautionary approach](#).  
Hugues Chenet, Josh Ryan-Collins, Frank van Lerven
- IIPP WP 2020-01 [The public economy: Understanding government as a producer](#). June Sekera
- IIPP WP 2020-02 [The entrepreneurial \(welfare\) state? Tackling social issues through challenge prizes](#). Ville Takala, Emma  
Nordbäck and Tuukka Toivonen
- IIPP WP 2020-03 [Determinants of income shares and the stable middle in post-socialist China](#). Giorgos Gouzoulis, Collin  
Constantine
- IIPP WP 2020-04 [Industrial policy: A long-term perspective and overview of theoretical arguments](#) Erik S. Reinert
- IIPP WP 2020-05 [Gig work at the base of the pyramid: considering dependence and control](#). Kate Roll
- IIPP WP 2020-06 [Deindustrialisation reconsidered: Structural shifts and sectoral heterogeneity](#). Fiona Tregenna, Antonio  
Andreoni
- IIPP WP 2020-07 [Upward-scaling tipping cascades to meet climate goals: Plausible grounds for hope](#). Simon Sharpe, Timothy  
Lenton
- IIPP WP 2020-08 [When homes earn more than jobs: the rentierization of the Australian housing market](#). Josh Ryan-Collins,  
Cameron Murray
- IIPP WP 2020-09 [Managing nature-related financial risks: a precautionary policy approach for central banks and financial supervisors](#). Katie Kedward, Josh Ryan-Collins, Hugues Chenet
- IIPP WP 2020-10 [Welfare 5.0: Why we need a social revolution and how to make it happen](#). Hilary Cottam
- IIPP WP 2020-11 [Public value and platform governance](#). Mariana Mazzucato, Josh Entsminger, Rainer Kattel
- IIPP WP 2020-12 [COVID-19 and public-sector capacity](#). Mariana Mazzucato, Rainer Kattel
- IIPP WP 2020-13 [Theorising and mapping modern economic rents](#). Mariana Mazzucato, Josh Ryan-Collins, Giorgos Gouzoulis

All Working Papers are available to download at the Institute for Innovation and Public Purpose website: [ucl.ac.uk/iipp](https://ucl.ac.uk/iipp)

[ucl.ac.uk/iipp](https://ucl.ac.uk/iipp)

 [@IIPP\\_UCL](https://twitter.com/IIPP_UCL)

UCL Institute for Innovation and Public Purpose  
Gower Street, London, WC1E 6BT

**General enquiries:**

[iipp-research@ucl.ac.uk](mailto:iipp-research@ucl.ac.uk)

Tel: +44 (0)20 3108 6961

