Rethinking the economics of land and housing

[Provisional title]

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Contents

List of acronyms

GDP	Gross domestic product
CMU	Capital Markets Union
CRE	Commercial Real Estate
LTV	Loan-to-Value (ratio)
LVT	Land Value Tax
LTI	Loan-to-Income (ratio)
HEW	Home Equity Withdrawal
MBS	Mortgage-backed security
RMBS	Residential Mortgage Backed Security
SPV	Special Purpose Vehicle
BTL	Buy-to-let
QE	Quantitative Easing

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Chapter 1: Introduction

"Buy land - they're not making it anymore."
- Mark Twain

"Attention salesmen, sales managers: *location, location, location,* close to Rogers Park."
- 1926 real estate classified ad in the *Chicago Tribune* (Safire, 2009)

This is a book about land and its role in the economy. By land, we don't mean physical earth and rock – we mean locational space. Land plays a central role in the economy but one that is often overlooked and poorly understood. This lack of understanding is a major weakness in much orthodox economic thinking, and helps to explain many of the policy failures and problems that bedevil modern societies. These include the crisis in the affordability of housing (the main use for land in modern economies), rising inequality, financial instability, excessive household debt and falling investment and productivity levels, despite increasing paper wealth.

This book should help the reader understand how these problems came about and, provide some clues as to how they might be addressed in the future. The book has two sets of audiences and objectives. First, it is aimed at the interested reader who wishes to better understand some of the challenges facing modern economies and societies. The types of questions this book should help address include:

- Why are house prices in advanced economies rising faster than incomes and the growth of the economy? Is it simply a case of building more homes or having less people? Why don't politicians or policy makers want or allow house prices to fall?
- Why is land ownership so concentrated and wealth inequality growing so fast?
- It is desirable for society to aspire to home and land ownership as the best route to wealth?
- What is the relationship between the financial system and land? Why have banks begun to lend more for the purchase of existing property and land then to businesses for investment? Why are household debt levels historically so high?
- What is the cause of the large boom and bust cycles in house prices experienced in the UK and other countries over the last 45 years?
- How does the value of land relate to the technologies of production, the distribution of wealth and economic inequality over time?
- Why isn't land and location taught or seen as important in modern economics or integrated in to national accounting?

Second, this book is aimed at students and academics in the social sciences, including politics, political economy, law, sociology, geography, urban studies and, perhaps most of all, economics, where the topic of land has almost completely disappeared from most textbooks. To understand land properly, we must take a

cross-disciplinary approach – we need a bit of history, a bit of economics and a bit about power and the law.

This book is focused on the macroeconomics and political economy of land, in other words how it impacts aggregate or national economic phenomena, such as the distribution of wealth and income, changes in asset prices, flows of credit and stocks of debt, and, for the most, part, the national rather than international or local/regional policy and political sphere. A particular goal is to help develop a more coherent analysis of the role of 'economic rent' in modern economies, that is the excess returns derived from the ownership of a natural (usually scarce) resource. Land, we believe, is the most important source of such rents in advanced economies and also the most neglected. The book is motivated by the failure of mainstream macroeconomics to develop theories adequate to explaining these dynamics. This has been a long-term problem and we are not the first to tackle it[1], but it is one that has been bought in to particularly sharp definition in the post-financial crisis period since 2007-08.

This book does not examine the economics of cities or urban space more generally, nor the role of land in agricultural or development settings. These are fields which we felt were already well covered in the existing literatures.[2] The focus of the book is also primarily on the use of land as housing rather than commercial real estate, although the latter is discussed in a number of places. Similar dynamics apply to both, but there are important differences that space has not allowed us to examine.

The economic story of land is global, and much of the evidence and arguments presented in this book are relevant to advanced economies generally. But the way in which land's role in the economy has played out in different places depends largely on the laws, institutions and political history of particular nations, and so varies widely. Rather than attempt to comprehensively cover the world – an endeavour that would have required a book six times the length of this one - we mainly focus on the United Kingdom as our case study. The UK is a large and mature economy, and many aspects of its land economy, legal institutions and financial system have been exported around the world (particularly to Anglo-Saxon, common law countries), making it a useful reference point for more generalised discussion of the issues. But throughout the book we also incorporate examples of the role of land in other advanced countries.

1.1 What is land?

In classical political economy (the predecessor to modern economics), land was understood to be one of the three factors of production, along with capital and labour. Any economic activity requires the combination of all three: a farm obviously requires land to produce food, but so too does a factory to produce goods, or a lawyer's office

[1] See for example the writings of U.S. economists Nicolas Tideman, Michael Hudons and Mason Gaffney and British economist Fred Harrison.

[2] See, inter alia, the following academic journals: *The Journal of Urban Economics, Urban Studies and Real Estate Economics*.

to provide legal services. Looked at like this, it is clear that land is not simply soil, and its economic uses are not simply agricultural. In fact, land is better understood as *space* and the occupation of that space over time.[3]

Throughout most of economic history the primary function of land was for agricultural production. But since the birth of modern, capitalist economies other uses have become predominant: first as the site of industrial production, and later as the site of service provision and domestic housing. Today, it is in the housing market that the economic function of land is most visible, as the value of residential property has overtaken the value of land used for other purposes, as the economist Thomas Piketty (2014b) makes clear in his recent book *Capital in the Twenty-First Century*. For this reason,I much of this book focuses on housing as the main

Land has several unique features that differentiate it from the other 'factors of production' that form the central focus of the economics discipline – capital and labour. Most obviously land is *immobile*: you can't move land from one place to another, because land *is* the place itself. The supply of land is highly inelastic, if not fixed, because you cannot make any more of it (with the small exception of reclamation from the sea).[4] To all intents and purposes, land is *eternal* (with the small exception of coastal erosion), although climate change looks set to lead to a reduction in its habitable surface. Most importantly, land is essential for all economic activity to take place – and indeed for life itself.

These unique features determine much of the special economic functions of land. Notably, they are features that do not fit well into mainstream (neoclassical) economic models where the supply of commodities, labour and capital can easily adjust according to the demand for them and find an equilibrium price and quantity (see box 1). But rather than adjust their models for this reality, economics has neglected land or conflated it with other factors of production, most notably 'capital'. This failure to distinguish between land and 'capital' as factors in the production process, in notions of 'wealth' and in national accounting is a major conceptual error in the evolution of economic theory that we explore in this book (Chapters 3 and 5 in particular).

Throughout this book we will treat land as the physical space within which economic activity takes place.

Box 1.1: Neoclassical economics

Neoclassical economics is a school of economics with its origins in the late 19th century which views the economy as a self-equilibrating system driven by the voluntary exchange of goods and services by individuals and firms in seeking to maximise their utility and profits. Neoclassical economics assumes people and firms are able to make rational preferences between identifiable outcomes and attach

[3] Economists often refer to other natural resources such as oil, water, air, or light as 'land', but these too can be best understood as the products of certain locations.

[4] The supply of land In aggregate is certainly fixed (at least until we are able to colonize other planets) but the supply for a particular uses is fixed artificially, for instance by planning rules.

value to those outcomes. It also assumes people are able to act independently on the basis of full and relevant information. The interaction between market supply and market demand, which are aggregated across firms and individuals, determines equilibrium output and price.

Within the broad school of neoclassical economics, there are a range of different approaches, however they mainly share the above core assumptions and a general requirement that economic theory should be grounded in the actions of individuals – that economics needs 'micro-foundations'. Neoclassical economics became the dominant school in teaching, research and economic policy making in the 1970s and remains so today, however in recent times it has come under considerable criticism for its failure to help predict and explain the financial crisis of 2007-08 and the slow recovery that has followed it.

Neo-classical economics influenced policies focus upon removing barriers to the free and independent exchange of goods and services that may temporarily prevent markets achieving equilibrium conditions. The emphasis is on 'supply-side' solutions, such as tariffs, labour market regulations and certain taxes.

In this book we will use the term 'mainstream', 'orthodox' and 'neoclassical' economics interchangeably.

1.2 What is the value of land?

The economic value of any piece of land initially stems from the uses it can be put to – as a field, a factory, an office, a shop or a home. The economic value of these uses will vary not only with the natural features of the land, but with their geographic relationship to the rest of the economy. A fertile field is obviously more valuable than a desert, all else being equal, but fertile ground miles from people to farm, roads to carry- or markets to consume- its produce is less valuable than one near a city with good transport connections. Estate agents like to say that 'location, location, location' is the most important factor in selling a home, because everything else can be changed. What they are referring to is the fundamental locational value of the land itself. This can be seen in the often huge discrepancy between the 'replacement cost' of a home calculated for insurance purposes, and the actual market price it commands: the difference between the two is essentially the value of the land in that particular place.

Land values in any particular location reflect the level of wider economic activity in that area.[5] The price of a home in a thriving city can be many times that of an identical home in a remote, depressed region, because of the access to economic opportunities living in the city home brings. Most obviously, investment in infrastructure increases the value of land, by increasing the range and quality of uses it can be put to, and the relative advantages of well-served locations over other places. New transport links, or being in the catchment area of a good school,

[5] House prices are thus a prime candidate for use in 'hedonic pricing' methods, a technique used by applied economists whereby price is determined both by internal characteristics of the good being sold and external factors affecting it.

dramatically affect the market value of homes in that location, because they boost the value of the land underneath those homes.

But the value of land is not only determined by its *current* use value. Because land is permanent, controlling land is also a means of securing the economic value that holding it will provide *in the future*. **In other words, land is an asset as well as the provider of consumption goods (food, shelter), and land prices will reflect people's expectations of future economic activity.** The permanence and inherent scarcity of land make it a good asset for the storing of value (assuming no major changes to planning regulations). Most capital assets depreciate in value over time due to natural wear and tear but land tends to appreciate. This means people are often keen to convert other forms of wealth into land, including money which, although much more liquid, can lose value rapidly under conditions of consumer or asset price inflation. This dual function makes land challenging to neatly fit in to economic theory since at any point in time land can be being used for different purposes.[6]

For similar reasons, **land is also an excellent asset to act as security (or 'collateral') for extending credit and finance,** the topic of chapter 5. For the first few decades after World War II, restrictions were placed on lending against property because of concerns about excessive real estate bubbles. However, in the 1970s and 1980s, the liberalisation of credit markets led banks to radically change their primary role in modern societies, switching from lending primarily to businesses for investment to lending to households for home purchase, taking land as collateral.

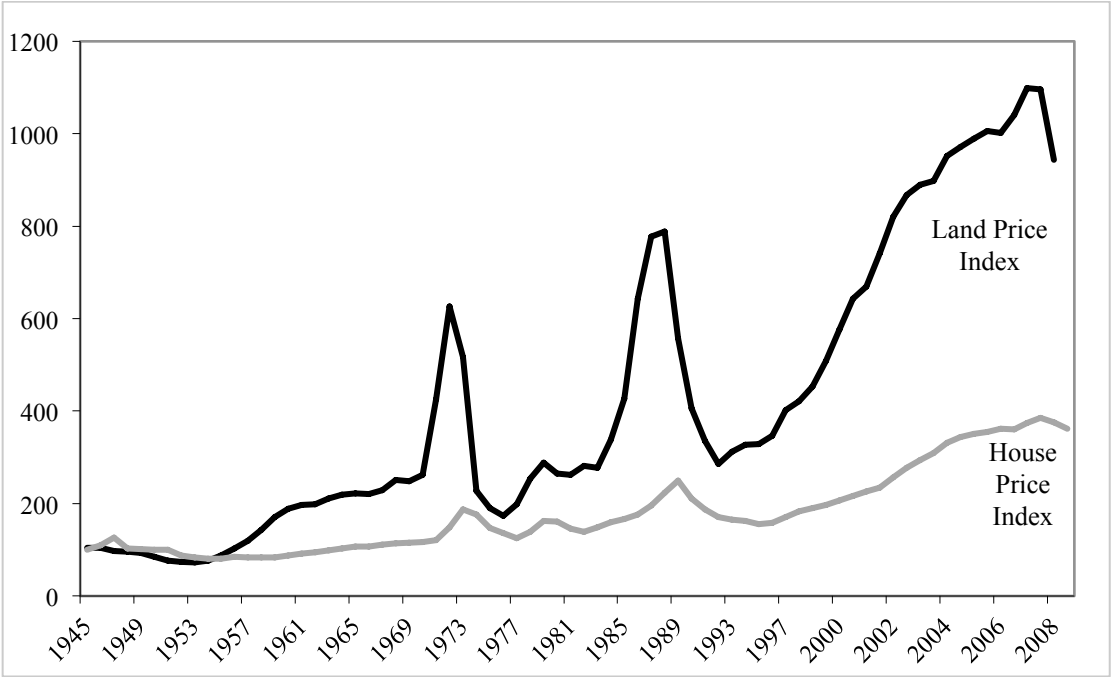
The regulatory constraints on the practice of lending against property assets are therefore a key determinant of the workings of the market in land and landed property and the macro-economy more generally (Aron, Duca, Muellbauer, Murata, & Murphy, 2012). Today the relative advantages that Buy to Let borrowers have over first-time buyers in securing access to mortgage credit has helped to drive the increase in landlords' share of the total housing stock (Kingman, 2013). International regulatory moves since the 1970s have also incentivized banks to favour property-related lending over other types of loans and so contributed to keeping property and land prices up.

Whilst there is a strong theoretical case for allowing land to be used as a form of collateral from an economic development perspective (De Soto, 2000a), there is also strong evidence that rapid rises in real-estate credit lead increase financial fragility and are strong predictors of financial crises and long-lasting recessions. More generally, a number of economists now argue that **capitalist economies are characterized by a land-credit 'cycle', which may be longer and deeper that the standard economics' text-book 'business-cycle'** (Aikman, Haldane, & Nelson, 2014; Borio, 2014).

[6] In this sense it is similar to money, which equally fulfill multiple and sometimes conflicting purposes. Money's functions include being a store of value, means of exchange and unit of account. Economic theories of money have typically isolated either the store of value or means of exchange function of money as its primary role and neglected the tension between the two roles (Dodd, 1994; Ingham, 2004).

Figure 1 shows how house and land prices have developed over time in the UK over the last 60 years. We can see that since the 1960s land prices have become highly volatile with three huge boom-bust cycles, corresponding to expansions in bank credit in the 1970s, late 1980s and 2000s. Discounting inflation, house prices have gone up five times since the end of World War II. But the price of the land needed to put houses on has increased in real terms by 15-times over the same period. Research suggests that house price volatility is primarily driven by land values – which is to be expected, as the price of construction (labour and building materials) is subject to more standard and slow moving economy-wide factors. Importantly, land values tend to rise rapidly ahead of house price booms, showing how land markets present good opportunities for speculative investment to extract value.

Figure 1.1: Real land and house price indices UK 1945-2008 (1945 = 100)



Source: Adapted from (Cheshire, 2009)(2014). The series splices together data from Vallis, E. A. (1972a) 'Urban Land and Building Prices 1892-1969: I', Estates Gazette, Valuation Office Agency (2010) 'Property Market Report 2010' and DCLG (2010) 'Table 502: house prices from 1930, annual house price inflation, United Kingdom, from 1970'.

As noted by the American sociologist Thorsten Veblen (1899), landed property can also be seen as a 'positional good' which people use to demonstrate their social status. People will therefore be prepared to pay more for desirable locations than can be justified purely by rational economic calculations. As economies develop and become more informationally intensive and the costs of many goods and services – cars, computers, mobile phones - fall, locationally desirable land and property will lbe ikely d to eat up a larger proportion of people's incomes (Turner, 2015a, p. 70).

Relatedly, physical space is also highly desired and not subject to diminishing returns – as people get richer, they want more space. Estimates suggests that a 10% increase in incomes leads people to spend about 20% more on space in houses and

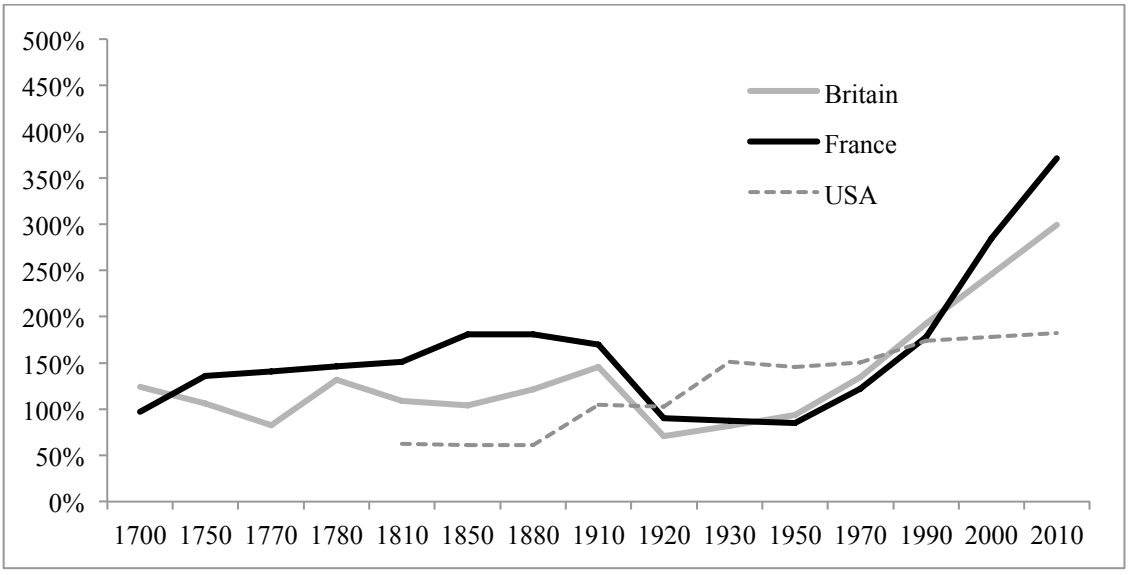
gardens (Cheshire & Sheppard, 1998). In the economics jargon, **land has a 'high-income-elasticity of demand' – people will stretch their incomes to consume it.**

This is why the rise of communications technology has not meant 'the end of distance' as some predicted, but has in fact driven the economic pre-eminence of a few cities that are best connected to the global economy and offer the best amenities for the knowledge workers and entrepreneurs of the digital economy (Florida, 2004; Thrift, 1996). The scarcity of these locations has fed a long boom in the value of land in those cities (De Groot, Marlet, Teulings, & Vermeulen, 2015).

The technological transformations of recent decades may not have abolished the significance of land in the economy, but they have accelerated a shift in the relative economic importance of different land uses, which was already underway. As Piketty's (2014b) data demonstrates, the proportion of the total stock of wealth represented by housing has risen rapidly since the mid-twentieth century – while the value of agricultural land has dwindled to almost nothing as a share of GDP (see chapter 6).

Piketty's data also shows that for around 270 years, in the UK and France residential property wealth varied between 60-180% of GDP (figure 2). Since the 1980s however, residential property values have exploded and are now over 300 percent of GDP in both countries. In the U.S., the expansion has been less dramatic but residential property values have still increased 3-fold since the beginning of the 20th century as a percentage of GDP. Clearly, a fundamental shift has occurred in these economies, as housing has replaced farming as the primary economic use of land.

Figure 1.2: Residential property wealth as a % of GDP in advanced economies



Source: Piketty and Zucman **(2013a)**

All of these factors complicate any assessment of the value of land, but in general they combine to make land a highly favoured investment class, and a perfect asset for speculation – provided, that is, it can be owned at all.

1.3 Land ownership and economic rent

The main institution which has mediated the interaction between land and the economy in modern societies is via property ownership, the subject of Chapter 2. The idea of property ownership seems simple at first – you own a property and have exclusive rights to occupy that piece of land for a defined period of time (or the land-owner grants you such rights as a tenant). In fact there are multiple forms of individual and collective forms of ownership possible, with modern exclusive individual home ownership a relatively recent phenomenon.

The history of land ownership is important to explore for it demonstrates how the rules and customs that underlie private property – a cornerstone of modern capitalist economies – have actually very little to do with economics and much more do with politics and power. This makes it an awkward phenomenon for mainstream economics which assumes, in general, that all economic relationships have been voluntarily entered into. The only 'power' that appears in most economics text books is the power of some sellers to influence the prices of products – i.e. 'market power' (Hill & Myatt, 2010, p. 251). In the real world of imperfect information and finite land, those with control over latter have heavily influenced access to it and its value through legal and regulatory influence over the state.

It is not our aim in this book to tackle the philosophical or moral arguments for or against property ownership but rather to show how this phenomenon interacts with the economy and the financial system. What can be said is that property ownership has played a central role in the shaping of modern economies and brought significant benefits to many millions of people at certain points in history. But it is not at all clear that ownership is the superior form of tenure in terms of optimising social welfare or economic productivity at the aggregate level.

This fact is related to the inherently exclusionary nature of land ownership given that land itself is scarce. This is true even if there are large quantities of 'empty' land that have not yet been brought into economic use, because more economically productive locations are *relatively* scarce, and the best of all are extremely scarce. Each location is more or less unique - so control of every piece of land is essentially monopolistic. **As a result, land owners can command returns from those who must use their land based purely on their ownership of it, unrelated to their costs of bringing it in to production or any efforts they have expended. Such returns are known as 'economic rent'**.

The fixed supply of land for particular uses means it does not fit easily in mainstream economic theories where supply and demand set prices in a free market. If the demand for iPhones increases, Apple can increase the quantity of phones produced – at a cost to themselves - until an equilibrium is reached, whereby demand meets supply and the market 'clears'. Apple may instead choose to increase the price of iPhones – however they then face the risk that some consumers may choose to buy a different brand of phone. The idea is that market competition generates an efficient trade-off between quantity and price and economic rents are minimized.

But the quantity of land cannot be increased in the way the quantity of iPhones can. If demand for land increases, the price goes up without triggering a supply response.

This problem may be exacerbated by planning regulations that restrict the supply of land over and above its natural scarcity (Cheshire & Sheppard, 2004)– but as we argue in Chapter 7, such regulations merely crystallise the problems of scarcity and rent, and make them more amenable to democratically controlled policy mitigation.

As David Ricardo (and later Henry George) identified, the ability to extract economic rent is so powerful it can effectively monopolise much of the growth created in an economy – the vast bulk of which will not have been created by the landowner themselves. In its simplest conception, as the economy grows, landowners can increase the rent they charge non-owners to absorb all the additional value that their tenants (such as workers, shop keepers and industrialists) generate.

Rent-seeking seems intuitively unfair to many, but it is also inefficient. If the worker, the shop keeper or the industrialist cannot benefit from their own efforts, but must watch it being extracted in the form of rent, why would they exert themselves or innovate? As is often noted by studies of the divergent economic health of different cities, successful urban centres around the world experience soaring land and housing costs – which ultimately threaten the very economic success of those cities, as valuable workers choose to move to less dynamic places where lower wages are more than compensated by much lower housing costs (Hsieh & Moretti, 2015). The ability to extract rent for little effort or risk also distorts investment decisions, as it encourages those with capital to over-allocate it to land and property purchases, rather than other productive uses (see Chapter 5).

The allure of rent-extraction encourages those who can to accumulate land – and the monopolistic nature of private land ownership enables them to preserve and expand their holdings. Historical evidence suggests that markets in private property tend towards concentration, and to absorb a disproportionate share of growth (George, 1879; Ricardo, 1817). The result is growing wealth inequality, acute poverty for some, and inefficient capital allocation (which we explore in Chapter 6).

1.5 Summary of chapters

The remainder of this book is laid out as follows. Chapter 2 describes the emergence of tradeable, privately owned landed-property and the enclosure of previously common or feudal lands in to private ownership. This is the key starting point for any understanding of the way in which land interacts with the economy in modern capitalist economies. We argue that there is a paradox at the heart of land ownership. The spread of land ownership of land has helped drive economic development, democratized power and spread wealth, yet, we argue, it equally has a tendency towards concentration and monopolization of resources via excessive rent extraction with increasingly negative economic impacts at the aggregate level, even as the paper wealth of those owning property may increase. Landed property can thus be thought of as both ‘freedom and theft’. The second half of the chapter summarises how states’ have attempted to address these challenges, through control over land and the subsidy and taxation of land.

Chapter 3 reviews the history of economic thought on land, with a particular focus on

the classical political economists who first identified the economic rent that derived from agricultural land as a key challenge for the state and economics more generally. The chapter then examines how neoclassical economics emerged and sought to develop universal scientific rules that determined the distribution of income – marginal productivity theory - across all factors of production. Together with the shift away from agricultural to industrial production, this led to land being conflated with capital and its unique qualities were longer identified in economic theory and policy.

Chapter 4 focuses on the economic transformation of land usage from agriculture, through industrial production and to the site of a consumption good – housing – in the twentieth century. This chapter uses the United Kingdom as an example via which to illustrate how the paradox of property ownership and the problem of economic rent was dealt with by various governments. We show how changes in taxation and subsidies for home ownership have increased the incidence of land rents in the latter part of the twentieth century.

Chapter 5 focuses on the relationship between land and finance. Although, as discussed, property has always been a source of collateral for the extension of credit, the last few decades have seen an extraordinary growth in real-estate related credit, in particularly for mortgage lending: what we call the 'financialisation' of land. The chapter argues that the move towards home ownership as the preferred form of tenure and the liberalization of the banking sector have to the emergence of a feedback cycle between land and credit that has come to dominate modern economies. This has led to greater financial fragility and instability with consumption, the main contribute to economic growth in advanced economies, increasingly determined by the interaction between housing wealth and credit.

The liberalization of property finance and the failure to tackle economic rent has important distributional consequences. Chapter 6 examines these dynamics via an exploration of the role in land in generating income and wealth inequalities in modern societies. It reviews different theories of inequality and shows how changes in land value are the primary determinant of modern inequalities but are largely ignored because of the failure of economic theory and national accounting frameworks to properly incorporate property wealth and economic rent.

In the conclusion to the book, Chapter 7, summarizes the key ideas of the book and focuses on potential solutions to the problems that have been created by the neglect of land in economic theory and policy, in particular the problem of economic rent from land. These include changes to ownership, planning, altering the burden of taxation and structural changes to our financial system to break out of the land-credit feedback cycle.

Our contention is that many of the economic challenges of the current era are rooted in a failure to properly consider the role of land in the economy. Nonetheless, land ownership remains a key site of political conflict and regulatory intervention – from local battles over planning restrictions on development to global rules on the capitalization of banks. A clearer understanding of how land operates in the economy is therefore essential to better policy, as well as better economics. We hope the rest of this book provides a small step towards this goal.