Realtor's Capital:

The Political Economy of Property Developers in the United States

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Dedicated to my mother Najma Awan, 1948-2015

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Abstract

This dissertation charts a novel path in urban political economy by tracing the profits and the process of turnover of property developers in the United States. I refer to these developers as realtor's capital and argue for treating them as a peculiar type of merchant. The fundamental theoretical point established in the thesis is that realtor's capital earns the average rate of profit in return for offering intermediary services.

The concept of realtor's capital aids in understanding the fundamental intermediary activity of commercial real estate firms, which is the development of new real estate. The rest of their intermediary services offered by them grow out of this and depend on it. There can be no trading of secondhand stock of commercial property if it had not been developed in the first place. Realtor's capital as an idea, therefore, also forms a bridge between property development and other services offered by commercial real estate firms.

I begin the analysis by arguing that there is no landed class in the U.S.A. This corresponds to the crucial fact that the dominant form of land tenure is freehold, and owner occupation of commercial property is the norm. The lack of a landed class provides the necessary social conditions for realtor's capital to be able to specialize in the intermediation of real estate transactions. A fresh line of analytical inquiry is thereby opened, which leads to conclusions that are distinctly different from the classical political economy of ground rent as well as from the contemporary literature on urban rent.

There are two important parts to the subsequent theoretical analysis. In the first part, I demonstrate how realtor's capital makes an average profit through intermediating commercial real estate transactions. Commercial real estate is composed of two parts - buildings and land. However, while buildings are produced commodities, land is traded as a commodity without being produced. Consequently, I show how the sources of realtor's profit are very different in

each case. Realtor's profits from the sale and lending of buildings are akin to profits derived from trading commodities. Building rent emerges as remuneration for the temporary advance of buildings by their owners, similarly to interest received for the lending of money capital.

Then I show that, given freehold tenure, land acquires a price through the flow of capital into the real estate market rather than through the blockage of capital from investment in land, as commonly assumed in urban political economy. Moreover, proximity to urban centers confers economic advantages to productive and commercial enterprises. Urban land price thus results from the divergence of the rate of profit from its mean according to geographical distance from urban centers. A land price gradient emerges that is directly associated with a profit rate gradient. I build on these strong conclusions to demonstrate that realtor's capital makes a unique form of commercial profit through the process of land redevelopment.

In the second part of the analysis, I examine in detail the turnover of realtor's capital through which it carries out its essential functions. The turnover process is composed of four stages, namely land acquisition, the commissioning of design, the commissioning of construction and, finally, the vending of new developments. Detailed analysis of each stage of this process substantiates my theoretical claim that realtor's capital is a special type of commodity dealer receiving the average rate of profit.

Part I – The Gap Between Facts & Theory

Chapter 1: Introduction

Section 1.1 – Central Argument

It has been long accepted in political economy that there are three great classes in modern society. Workers who earn wages by selling their labor-power. Capitalists who through ownership of enterprise employ wage-labor and compete for profit. And landlords who exact a ground-rent from capitalists by blocking the investment of capital into land. This landed class derives its existence by acting as a barrier to the ownership of land by capital. It can only exist where capitalists do not own the land and are instead forced to constantly lease it at market rates. Alternatively, where owners of enterprise also own the land there can be no landed class.

Such is the case in the United States where there are only two classes in existence - capitalists and workers. There is no distinct landed class acting as an obstacle to the investment of capital in land. Given the lack of this barrier, owners of capital also own the land. The ownership of land has become fully subsumed under the ownership of enterprise. The form of land tenure which prevails is freehold. The lack of a landed class also allows for a peculiar type of merchant to specialize in the intermediation of buildings and land. These intermediaries are commonly referred to as property developers when embarking on new development projects but more generally as commercial real estate firms. I call them realtor's capital and they form the theme of my investigation.

My contribution in this work is to introduce the concept of realtor's capital and analyze its profits and turnover. I define realtor's capital as the commercial capital which specializes in the intermediation of commercial real estate. In turn, realtor's capital makes the average profit. This is my central argument and I expand on it below.

Commercial real estate means all properties owned for the purpose of producing an income either through sale or rent. It is composed of two parts. First, are the buildings rooted

into the land which exist as capital. Second, comes the land which takes the form of land price. The realtor (for short) specializes in seven intermediary functions of commercial real estate. These seven functions are as follows. First, the realtor initiates production of buildings. Second, it lowers the circulation time of buildings. Third, it reduces the circulation costs of buildings. Fourth, the realtor lowers production time of buildings. Fifth, it lowers the production costs of buildings. Sixth, the realtor minimizes the circulation time of land. Seventh, it also curtails the circulation costs of land. In return for these seven services the realtor recoups an average profit.

I begin to develop this argument in the next section which reviews historical work as well as secondary data on U.S. commercial real estate gathered from the subfields of urban and real estate economics. The discussion of this literature brings to the fore ten analytical gaps in the current state of political economy.

My novel contribution to political economy lies in providing answers for them through stage by stage development of the concept of realtor's capital. In the ten chapters which follow the introduction, I provide an answer for each lacuna in the same sequence as laid out in the section below. These chapters provide an understanding of the role of realtor's capital in the economy. Each part of the analysis builds on the prior step forming a series of chain links. The theory, therefore, ascends from simple concepts to more complex ones. The aim is to approximate realtor's capital as it exists in concrete reality to the best degree possible.

I do not provide new empirical data of my own but use existing sources as need be. This dissertation is a conceptual rethinking of the work already carried out. I seek to cross fertilize the empirical insights of urban and real estate economics with the method and assumptions of political economy. My methodology is, therefore, both inductive and deductive. I try to tie surface level phenomena as captured by neoclassical economics with their inner causes. This allows me to avoid the purely theoretical debates in urban rent theory which can become devoid of empirical context.

My approach also shares an essential methodological trait with that of Marx as well as Ricardo. I will elaborate it here as this will benefit the reader later in understanding part two of the dissertation and especially chapter six.

Land as an unproduced commodity exhibiting a price poses a puzzle for value theory which cannot be resolved without putting together all the other pieces of the analysis. Marx derives ground-rent and the price of land as the very last step in his framework. Land-price and ground-rent are an outcome of the distribution of value to land as a factor of production. This value is distributed towards land through competition. So, land-price and ground-rent can only made sense of after competition within a sector and between sectors has been dealt with. This also entails distinguishing interest as distinct from profit. The various types of values and prices which Marx elaborates along the way are then come logically prior to the price of land. He first deals with competition of firms engaged in production of commodities within a single sector. Through this the concept of value and surplus value emerge. The total value of all commodities can then be broken into the components of value and surplus-value. Their market prices in turn fluctuate around this mean. He then moves onto covering competition amongst sectors. This leads to the transformation of value into concept of cost-price and surplus value into average profit, thus, yielding prices of production. He then breaks down prices of production into wholesale and retail in order to derive an average profit for the commercial sector. Afterwards, interest is reasoned to be a portion of gross profit of functioning capital which splits of from it and takes up an independent existence with its own turnover. The price of passive investment is the rate of interest as differentiated from the average rate of profit which constitutes the return of functioning capital. Only after all this does the analysis of ground-rent and land-price follow (Marx, 1990; Marx, 1991).

The theory of the price of land is, therefore, predicated on competition and the equalization of profit rates amongst all sectors whether productive or unproductive. Ground-rent is then considered akin to passive income which accrues from the leasing of land as a form of in-kind lending (Marx, 1991). It is the same with Ricardo, who proposes an average rate of profit

formed through competition amongst sectors and the rate of interest as different from this before tackling the price of land (Ricardo, 1996).

Here I analyze land-price and ground-rent in the case of ownership of land by capital where there is no landed class. However, I utilize the same approach as Marx and Ricardo. I assume that competition leads to an average rate of profit forming across all sectors which is distinct from the interest rate. This means that competition within and between sectors logically precedes competition between capitals over land-use. In reality, of course all three happen simultaneously. But in the order of logical categories, land-price and ground-rent cannot be made sense of without a prior dealing with competition in and across sectors. Only after average rates of profit and interest are established beforehand can it be determined how much a capitalist is willing to pay to access a location given its relative profitability. I find this tactic of political economy to be still necessary for understanding the price of land and ground-rent in the U.S. today just as it was for Britain two hundred years ago.

A brief outline of the dissertation is as follows. Part one consists of the first two chapters. Here in the introduction I layout the ten theoretical blind spots of political economy in regards to U.S. commercial real estate. Then in chapter two, I turn to reviewing the urban rent theory which is the subfield of political economy that covers commercial real estate. There I highlight its shortcoming which lead to the analytical gaps the rest of this work looks to fill.

Part two is composed of chapters three to seven. In part two, I analyze the sources of realtor's profit from the intermediation of buildings and land. The analysis over here is focused almost exclusively on the long-run or equilibrium level analysis. There is little to no focus on short-term dynamics or exact concrete details of what realtor's capital does. I distinguish these two components of commercial real estate in chapter three. Then I analyze realtor's profits from the sale and leasing of buildings in chapter four. In chapter five, I trace the sources of urban land price in the profit gradient formed by agglomeration economies. Then in chapter six, I show how urban land price levels are a function of the profit gradient generated by agglomeration

economies. My model offers startling conclusion as to how urban land price comes about when capital flows into land rather than being blocked into it. Finally, I show how realtor's capital makes an average profit through converting land towards the use which accrues the most units of surplus profits. In chapter seven, I consider the peculiar sources of realtor's profits from the intermediation of residences.

Part three consists of chapters eight to eleven and fleshes out in detail the turnover of realtor's capital. Here I analyze how the realtor's capital as a peculiar merchant carries out its seven functions through the four stages of turnover. The analysis here again is focused on the long-run as it seeks to show how the realtor achieves an average profit through its turnover in equilibrium conditions. However, I also rely on concrete details to show what the realtor has to do to accomplish the turnover of the capital advanced.

Chapter eight shows how the realtor specializes in the first stage of turnover which is land acquisition. The realtor commissions the design next which forms its second stage of turnover. This is analyzed in chapter nine. Chapter ten looks at the third stage of turnover when the realtor commissions construction. Chapter eleven shows how the realtor carries out its functions of vending commercial property. The last section looks at the five aspects of the fetishism of commercial property which arise in freehold tenure. Finally, I close out the dissertation with a recap and brief discussion of further avenues of research.

Section 1.2 – The Character of U.S. Commercial Real Estate

In this section, I list out ten analytical gaps which exist in the political economy of U.S. Commercial Real Estate. This sets the stage for the subsequent ten chapters in which I look to fill those gaps. These lacunae are uncovered through a survey of economic data on U.S. commercial real estate as well as historical work on the specific character of its land tenure. I discuss the questions they raise for urban rent theory and follow up with an outline of the relevant chapter which tackles the problem.

I grant that a different set of observations, by raising a whole different set of questions, would have led to a an entirely distinct line of inquiry than the one I develop. Given the limited space, I have decided to focus on the details which I see as the most crucial to understanding commercial real estate in the United States.

The first analytical gap in land rent theory owes to the lack of understanding that there is no landed class in the United States. Freehold is what prevails in many nations as the form land tenure and this is certainly the case for the United States. This means that capital is not blocked from investment in land and rather it is the free flow of investment into land which determines its price and contemporary economic character. Even the current form of repressed leasehold tenure in the UK, with typical ranges between 99 to 125 years, approximates freehold ownership more closely rather than the market-rate leaseholds during the heyday of the gentry.

The rise of the British landed gentry is indelibly linked to eighteenth-century enclosures when the length of a majority leasehold tenures was truncated from a span of up to 99 years ('lease for lives') to as little as a single year. This allowed for market-rate rents to be charged for leaseholds with consistent upward revisions allowing the gentry to capture any surplus profits from capitalist tenant farmers (Allen, 1982; Beckett and Turner, 2004, p. 284). This process served as the historical basis for the Ricardian and Marxian theories of ground-rent and their fundamental role in the equalization of the rate of profit.

Similarly, British landlords over the nineteenth century also successfully transformed most ancient customary rolls or copyhold leases - where tenancy was an inalienable right of heirs - into short-term leaseholds (Beckett and Turner, 2004). The abolition of the Corn Laws opened up this system of agricultural monopoly to competition from the world market and it was not long before this began to take its toll from the 1870s onward (Mingay, 1976, pp.78-79).

The fall of the freeholding landed gentry as a ruling-class is one of the most pronounced episodes of class struggle in British history. The key acts of this drama may be briefly delineated in three categories: economic, political and social. In economic terms the agricultural depression of the late nineteenth century and consequent collapse of land prices broke the back of the landed gentry. The ensuing economic duress led to the break-up of hereditary estates. It was in this period that fortunes of the largest industrial magnates began to eclipse the wealth of the greatest of aristocratic houses. Simultaneously, the political climate became one of unremitting hostility to the British gentry who faced a concerted assault by workers, professionals and business owners demanding higher tax levies on landholders. This culminated in the passing of Lloyd George's 'people's budget' of 1909 which increased the tax burden marking a historic defeat and turning point in the struggle to euthanize the landed class. Conterminously, the extension of suffrage through the Third and Fourth Reform Acts of 1884 and 1918 further weakened the power of the gentry in the country-side. Moreover, the Conveyance and Settled Land Acts from 1881 onwards allowed creditors to seize estate asset of indebted patricians. Finally, in terms of social structure, the professionalization of state bureaucracies resulted in the displacement of the gentry from their hereditary roles. The consequence of such political, economic and social decline was the absorption of much of the landed gentry as a nationwide social class into the ranks of the businessman and professionals. Only a few houses of the greatest wealth were able to avoid this fate and continued to exist as rentiers (Cannadine, 1996; Thompson, 1980; Mingay, 1976; Pistor, 2019, pp. 38-39; Massey, 1980, p. 267). They were and continue to be the exceptions which prove the rule. Even here the question remains as to their

current methods of garnering income and whether they are largely of the nature of profitable enterprise rather than that of the landed rentier.

The leading author on this subject is David Cannadine. The historical literature on the topic is extensive and continues to attract new scholarship looking at particular local instances and various cultural and legal aspects of the fall of the gentry in England, Wales, Scotland and Ireland. Arguments for the existence of a landed gentry as a nationwide class in the UK ignore this history of class struggle. This has also been the cause of confusion regarding different forms of land tenure and urban rent. As David Harvey acknowledges:

'The actual history of landed property under capitalism has been a confused and confusing affair. It is difficult to spot within that history the logic of a necessary transformation of landed property into its capitalistic form. The confusions are still with us.' (Harvey, 2018, p. 346).

In the thirteen North American colonies there were numerous attempts to import the system of British market-rate or 'rack-rent' leaseholds. However, over the time the form of land tenure evolved towards freehold both in the free Northern and Western states as well as the South. The simplest explanation here lies with the three factors of production. In the New World, the combination of land, labor and capital took different proportions to the Old World. Capital was scarcer, labor even more, so but land was in plentiful supply. Vast tracts of lands in the frontier remained entirely unimproved, disconnected and without any legally recognized previous owner. These factors combined to depress the price of land in the long-run. The endless swindles of the early American gentry and land speculators to artificially heighten the price of lands continuously failed. On the other hand, due to the undersupply the price of labor continued to remain higher than in Britain (Post, 2011, pp. 167-171; Clawson, 1968; 14-15; Sakolski, 1932; Sakolski, 1957, pp. 18-34, 46-59; Curtis, 2014; Swierenga, 1977; Gates, 1954). Clawson succinctly outlines the result:

'…abundance of land and scarcity of labor gave the logical basis for a land system dominated by full individual ownership' (Clawson, p. 15, 1969)

Plentiful land also diluted the political power conferred by landownership. This in turn impacted credit relations. In the New World, creditors by 1732 had gained the right to seize real estate from defaulted plantation owners. The equivalent right would not be gained by creditors over the landed gentry in Great Britain until 1881 (Pistor, 2019, p. 39).

In the Northern States, these conditions also paved the path for an early victory of land-reform which aimed to prevent the rise of a nationwide gentry as in Britain. This would preserve the promise of the frontier as a bastion of independence where workers could escape the harshness of industrial life. After all, one of the key attractions of the American colonies and afterwards the United States was the ability to gain property in land (Ely, 2008, pp. 13, 39-41). This was the property basis of Republicanism as an ideology that gained wide popularity amongst workers, small craftsmen and the yeomanry in the nineteenth century. The National Reform Movement which began in the 1844 had by the 1862 enshrined its ideals of free land for settlement into law through the Homestead Act (Bronstein, 1999; pp.16-18, 54-63). The hopes of escaping proletarianization may in retrospect seem naïve. However, the land-reform current did eliminate the possibility of monopolization of the vast western lands by a single class. This ensured freeholding as the dominant tenurial form.

The case of Jacksonian era New York is telling. In New York, there was a local landed gentry of mainly Dutch origins exacting leasehold ground-rents from capitalist farmers akin to the models developed by Classical Political Economy. Referred to as Patroonships, these leasehold estates were met with large-scale agrarian protests in 1766. They were abolished in the aftermath of the violent anti-rent rebellion which lasted from 1839-1846 (Huston, 2000; McCurdy, 2001). The vast majority of the leasehold estates were turned into freehold land for local farmers. The estates system in New York was so thoroughly crushed that it became almost entirely forgotten and to Marx's surprise it remained unmentioned even in the work of Henry George (Marx, 1975).

After the civil war, the outcry against 'land monopoly' was raised again. This time it was by farmers on the frontier denouncing the rising price of land and the grim prospects of tenancy it brought with it. This became the hallmark of populist revolt of frontier farmers who were increasingly unable to acquire fertile and well-placed land at low prices. However, these 'land monopolist' interests were mostly other better off farmers, banks, merchants, railroad, mining and lumber companies or other northeastern industrialists (Postel, 2007, pp. 103- 106; Gates, 1968, pp. 435-462). Rentiers who drew a ground-rent as their principal source of revenue remained an exception outside the South (Clawson, 1969, pp. 82-86, 86-99). In the West, farm tenancy arose due to an 'incongruous land system' where homesteads for the poorest of settlers were available only on the worst of land while the best land had already been purchased by business owners and speculators or granted to railroads, universities, state governments, etc. (Gates, 1968, pp. 435 -462; 1973, pp. 48-71, 238-302, 303-325). Charles Post compares this situation to the rise of the British landed gentry in the seventeenth century (Post, 2011, pp. 86-87). However, in the American case it was capitalists purchasing and leasing land from one another while in the British case the precise opposite held. In the latter circumstance, capitalists as a class came to be divorced from the ownership of land which was monopolized by a gentry that exacted ground-rents instead of competing for profits. In both instances, proletarianization was the result, but in the American case it occurred without a landed class.

The trajectory of Southern States was different but also evolved towards freeholding. Three distinct periods of land tenure may be demarcated. First, antebellum slavery followed predominantly by share-cropping which was afterwards superseded by mechanized 'neoplantations'. In neither of the three stages was there a landed class akin to the models of Classical Political Economy.

First, slavery was introduced as a result of the impetus of cash-crop farming given abundant fertile land combined with the paucity of labor as a factor of production (Clawson, 1968, p. 16). Planters directed their own production using slave labor as owner-occupiers of the land. Side by side to it there existed an impoverished yeomanry that, however, still owned its

own land. This meant wealth and status depended on the accumulation of human property rather than land. This what distinguished gradations of fortune amongst the planters:

'Of the 1,156,000 free southern families in 1860, only 385,000 (roughly one-fourth) had slaves. However, the majority of slaves were owned by families that possessed at least twenty slaves each. Within this "planter class," some ten thousand families, or the "planter aristocracy,", owned more than fifty slaves each.' (Wilson, 2012, p. 24).

Economic historians of the region characterize the antebellum planter class as rootless 'laborlords' rather than landlords with little interest in land development or capital gains in land. An average planter held over sixty-six percent of his wealth in slave with real property accounting for less than a third. Land was in fact considered disposable and once the soil was exhausted planters along with their slaves simply moved to a new plantation. It was only in the aftermath of the civil war that land became of primary importance as private property in human beings was outlawed (Wright, 1986, pp. 18-19, 21-24, 24-26, 33-34, 47-50).

After the civil war there came to be a regional landed class which ruled the South as the chief architect of Jim Crow. Nonetheless, capitalist style ground-rent remained an exception as production methods on plantations largely remained precapitalistic. Most commonly, black families were contracted out and paid in kind after the harvest. These share-croppers were different than a tenant farmer because they did not have a lease on the land with full ownership of the produce. They only had a lien on a portion of the harvest (Wright, 1986, pp. 84-90, 90-102). As Gavin Wright explains:

"the new systems of share-cropping and tenancy emerged as a market generated compromise between the freedmen's goal of independence and the planter's quest for cash crops...wage labor was not attractive to married men...it offered neither security nor work autonomy. True tenancy, on the other hand, with tenure secured by contract, legal title to the crop, and managerial autonomy on the farm, was the preferred option for anyone with the assets...Share-cropping was in the middle - a contract form adapted for married men with families but possessing no property" (Wright, 2013, pp. 32-36).

On each plantation one could find the land divided between wage-labor directly employed by the planter and also fields rented out to capitalist farmers besides those tilled by share-croppers (Wright, 1986, pp. 90-93). However, share-cropping became the dominant tenurial form given the majority of farm laborers were black and wage-labor employment was seasonal (Wright, 2013, pp. 36-37, 39). This 'New South' was still tied to the world-market for the sale of its monocrops like sugar, tobacco, indigo, cotton, rice, etc. (Baptist, 2016; Williams, 1994; Mintz, 1986; Genovese and Genovese, 1983). And it developed a distinct class structure to that of Great Britain (Brenner, 1976; Wright, 1986, pp. 48-49). Arguably, the planter behaved as a capitalist through employing wage labor under his own direct supervision but also as a landlord with capitalist tenants. But even more so planters were landlords to metayers who they loaned instruments of production on credit and only compensated after the harvest. Therefore, a superimposition of classical models of ground-rent would conflate this peculiar arrangement with a system of rack rent leaseholds with solely capitalist farmers. It would also ignore Southern poor white yeomanry that held its land in freehold.

From the 1940s, share-cropping gave way to mechanized 'neoplantations' with the direct employment and supervision of wage-labor. Here ownership was now entirely combined with active land cultivation through mass mechanization of agricultural production. This came as a result of the immense pressure of labor shortages as once black share-croppers increasingly migrated to urban areas transforming themselves into wage-earners (Prunty, 1955, p. 483, 489-491; Wright, 1986, pp. 241-249). In the process, the postbellum landowning class transformed itself into fully capitalist farmers. Freehold owner-occupation of farms now superseded share-cropping as the dominant form of land tenure in Southern agriculture:

'It is the owner, not the laborer, who has decided on mechanization and who acquires the basic power unit for all mechanized farming – the tractor. With mechanization, full control of the cultivating power passes to the landowner.' (Prunty, 1955, p. 483)

In the U.S. as a whole between 1850 to 1959, most owners who leased their farms were small landholders because large-scale landownership was exceptional outside the South. Most

landlords were currently farmers or retired while others were small businessmen, professionals, widows and homemakers (Clawson, 1969, pp. 83-84). Although, farm leasing rates simply on their own cannot be considered as sufficient evidence of a landed class they do form a necessary component. In the U.S. the proportion of leased farms to total farms grew from 25.6 percent in 1880 to a peak of 42.4 percent in 1930. However, by 1950, the number had dropped down to 26.8 (Sakolski, 1957, pp. 227-228). In this period, America also transformed itself into an industrialized economy where the majority of the population became wage-earners. Public land disposal policies for the western frontier should then be dually credited with expropriating the peasantry while also perpetuating freehold for enterprise.

The conclusion drawn here should not be that Marx and Ricardo among others were 'wrong'. Rather, my point is that their theories were based on the historically specific case of Great Britain which became outmoded domestically and did not successfully transplant itself in the United States. As a consequence, it is erroneous to use ground-rent models based on rack rent leaseholds as an explanation for different forms of land tenure such as freehold where a landed class is absent by definition.

Today in the U.S., leasehold years' purchases are exceedingly rare as most sales occur in fee absolute simple. Referred to as 'ground leases' they only exist in special cases requiring the drawing up of relatively cumbersome legal contracts. Usually, a leasehold will come into existence at a highly valuable site in a metropole where a developer may bid for a vacant site with a project in mind but find the owner unwilling to make a sale. The leasehold is then considered a peculiar middle ground with complexities normally unknown to American business. Both parties have to agree upon a base level and additional percentage of sales ground-rent along with other mutual obligations (Whalen, 2013, pp. 1-46).

In 2016, after excluding government assets the value of CRE was $12 trillion.[1] Approximately eighty-five percent of this $12 trillion was held by for-profit enterprises (Ghent, Torous and Valkanov, 2019, p. 155). The remaining share is mostly attributable to non-profits. It is estimated that 65 percent of U.S. CRE is owner-occupied for self-use by firms (Ghent, Torous and Valkanov, 2019, p. 168). Figure 1a charts the private ownership of CRE from 1925 to 2016 by each type of institution. Figure 1b depicts the proportionate share in CRE assets of that type of institution. Non-financial corporations have historically comprised most of CRE holdings. Even as their share has decreased they by far retain majority of ownership.
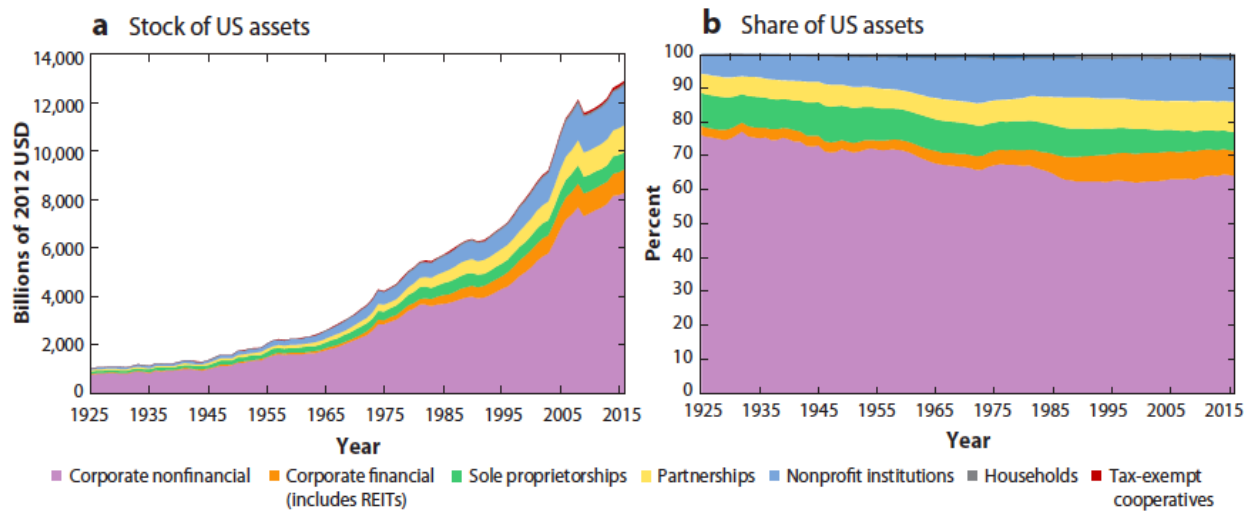
Figure 1a - Ownership of CRE in USD billions by institution & Figure 1b – Percentage share by institution (Ghent, Torous and Valkanov, 2019, p. 155).

Since 1925, individual households have held a minimal role in the ownership of CRE assets. There is no evidence of a nationwide rentier class dominating the ownership of land and

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[1] The authors use The BEA table here used by the authors is 4.1 Current-Cost Net Stock of Private Nonresidential Fixed Assets by Industry Group and Legal Form of Organization. An alternative method of estimating commercial property may be drawn from BEA Table 2600, the Balance Sheet for Non-financial Assets which can be accessed here: https://apps.bea.gov/national/xls/sna_au2019/tab2600_au19.xlsx. Previous estimates have used varying methodologies or data. The longevity of real property and the impact of depreciation from physical use as well as devaluation due to newer designs further complicates matters. For an excellent overview of various studies see Devaney and Scofield, 2020.

buildings. The interesting trend rather lies with the rising share of financial corporations in the ownership of CRE circa 1970. This marks a change in the composition of ownership of CRE amongst different capitalist sectors. The obverse side to the rise of financial ownership of CRE has been the decline of CRE holdings by non-financial firms. Figure 2 below tracks this decline in both private and public non-financials. Non-financial firms' have increasingly preferred to rent rather than own CRE (Ghent, Torous, Valkanov, 2019, p. 156). However, it would be a mistake to consider this the rise of the rentier as these financial institutions compete for the customary rate of profit on capital.
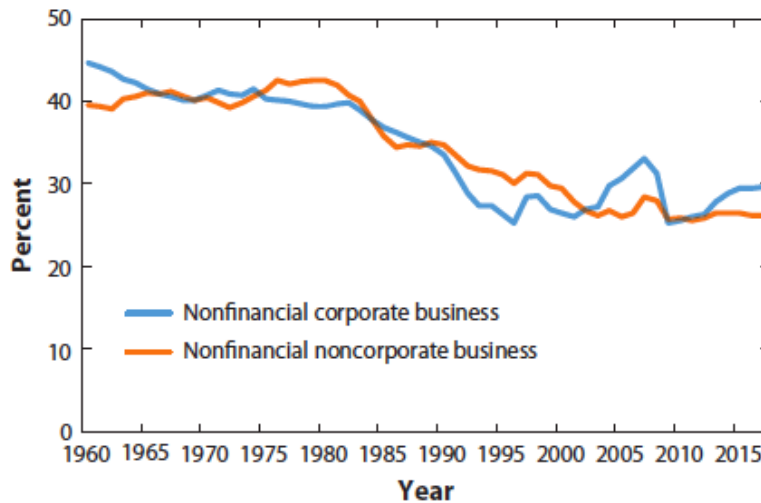
Figure 2 – CRE as a percentage share of total assets of public and private non- financial firms (Ghent, Torous and Valkanov, 2019, p. 158)

The three figures above do not tell us the amount of CRE value held in debt by lenders. Therefore, could it be the case that there is class of rentiers who accrue their income in the form of interest as 'money lenders' instead of direct outright ownership of CRE? This concept has its origins in the conflicted approach of Marx who equivocated between an institutional and class-based approach to the category of interest-bearing capital (Lapavitsas, 1997). Table one below disproves this notion altogether. Of the approximately $3.9 trillion in CRE mortgages 13.8% was

in the form of tradeable debt securities while the rest was held in institutional lender portfolios.[2]

Households accounted for less than 0.1% of total CRE debt.

| | Mortgage Debt Outstanding | | | | Change | | Sector |
| | 2020 Q4 | | 2019 Q4 | | | | |
	($millions)	% of total	($millions)	% of total	($millions)	Percent	Share of $
Bank and Thrift	1,478,018	38.1%	1,420,126	38.8%	57,892	4.1%	27.3%
Agency and GSE portfolios and MBS	837,867	21.6%	744,191	20.3%	93,676	12.6%	44.1%
Life insurance companies	580,035	15.0%	563,517	15.4%	16,518	2.9%	7.8%
CMBS, CDO and other ABS issues	533,468	13.8%	503,758	13.7%	29,710	5.9%	14.0%
State and local government	126,643	3.3%	123,614	3.4%	3,029	2.5%	1.4%
REITs	93,967	2.4%	90,491	2.5%	3,476	3.8%	1.6%
Federal government	86,477	2.2%	85,700	2.3%	777	0.9%	0.4%
Nonfarm noncorporate business	33,504	0.9%	31,906	0.9%	1,598	5.0%	0.8%
Finance companies	32,908	0.8%	31,827	0.9%	1,081	3.4%	0.5%
Private pension funds	26,333	0.7%	24,458	0.7%	1,875	7.7%	0.9%
Other insurance companies	24,015	0.6%	22,855	0.6%	1,160	5.1%	0.5%
Nonfinancial corporate business	15,756	0.4%	14,684	0.4%	1,072	7.3%	0.5%
State and local government retirement	5,909	0.2%	5,385	0.1%	524	9.7%	0.2%
Household sector	1,235	0.0%	1,187	0.0%	48	4.0%	0.0%
TOTAL	**3,876.135**		**3,663.699**		**212.436**	**5.8%**	

Table 1 – Sources of all Commercial Mortgage Debt in the United States by institution type, 2019 - 2020 (Mortgage Bankers of America, 2021, p. 45)

This data vindicates the approach to interest-bearing capital as representing institutional lenders which comprise a portion of the capitalist class rather than being altogether a distinct rentier class.[3]

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[2] The most important category of securitized CRE loans are Commercial Mortgage Backed Securities (CMBS). CMBS are secured non-recourse debt issued as bonds of various investment risk grades. The US CMBS market also has a number of indexes derived from various CMBS issues called the CMBX. These allow for shorting of the CMBS by acting as a synthetic financial instrument. For a discussion on the characteristics of securitized versus non-securitized loans see: Black, Krainer and Nichols, 2017 and Gonas, Highfield and Mullineuax, 2004. There also exist tradeable equities backed by CRE which are issued by Real Estate Investment Trusts (REITs). REITs specialize in investment in real estate by pooling the money of investors to purchase, sell and lease properties. REITs also issue unsecured debt to finance their activities and leverage up. In the U.S., the market for REITs has grown considerably since the 1980s. However, they still only represent 0.06% of all CRE value (Ghent, Torous and Valkanov, 2019, p. 156). For an overview of their capital structure see: Harrison, Panasian and Seiler, 2011.

[3] It is important to understand here that commercial real estate debt cannot just be reduced directly to mortgages or loans made for the purchase or development of a property. Firms also finance their current operations and asset acquisitions through commercial paper, bonds and debt-equity hybrid mezzanine loans (Phillips, 2009). And it is here that CRE plays a fundamental albeit indirect role for the financing of owner-occupied establishments through

It should become clear then from this brief expose that there is no landed class or rentier gentry in the United States today. Moreover, when the term 'rentier' is used to describe the contemporary economy, it either seems to imply monopoly profits, the rise of financial profits, capital gains in land or all three. This muddles important distinctions and is a non-starter for understanding U.S. commercial real estate. Acknowledging the lack of a landed class is the first necessary step in rescuing urban rent theory.

In chapter two, I will survey the urban-rent literature. Here I show that urban rent theory ran into an impasse due to its inability to come to grips with the reality that there is no landed gentry and freehold is the form of land tenure. This forms its first analytical gap. The essentialization of Marx's historically specific ground-rent framework by urban rent scholarship led it down an irrelevant cul-de-sac. Marx's ground-rent theory was based on short-term rack rent leaseholds as the form of tenure. This form of tenure was caused into existence by a landed class which mainly earned its rent and held its wealth in agrarian lands. Superimposing these conditions on contemporary urban freehold leads to three errors. It mischaracterizes what the sources are of urban land prices. How urban land prices come into existence or their formational process. The final result is that differing levels of urban land price remain inexplicable.

In section 2.2 I provide an overview of Marx's theory of rent. Then in section 2.3, I show how the urban applications of first form of differential rent mischaracterize the sources, formational process and levels of land price. Sections 2.4 and 2.5 do the same with the second form of differential rent and absolute rent. Finally, section 2.6 sums up the need to acknowledge the lack of a landed class instead of smuggling models based on British nineteenth-century

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unsecured debt (Ghent, Torous and Valkanov, 2019, p. 165). Firms holding a larger amount of CRE assets – land and improvements – have a greater probability of securing funding and leveraging up in comparison to those which do not. This is because in case of bankruptcies those holding the debt will be able to dispose of such fixed physical assets faster than others which may be very particularly suited to the firms' needs (i.e. machinery, equipment, etc.). Simply put, even though buildings and land are illiquid assets, they are still more likely to have a larger market for them than machinery and equipment peculiar to a sector (Campello and Giambona, 2013, p. 1335). In this broader sense then commercial mortgages compose only a portion of CRE financing and in fact such numbers hide the importance CRE serves in the ability of firms to draw credit and increase leverage. Such financing also comes from institutional lenders rather than a class of money-lenders.

tenure. This observation of an analytical void in urban rent theory then sets the direction for the rest of my inquiry.

Land rent theorists as wide-ranging from Henry George to Karl Kautsky and David Harvey among many others are guilty of essentializing Marx's model of ground-rent (George, 2009, pp. 53-57; Kautsky, 1988, pp. 83-85; Harvey, 2013, pp. 233-236; Harvey, 1974, pp. 239-249, 254). Two more recent examples of this are Francesca Manning and Brett Christophers who ceaselessly stress the existence of rentiers (Manning, 2020, p. 15; Christophers, 2020, p. 332). Kozo Uno, the founder of the famous Japanese Unoist school of thought also suffers from the same error (Uno, 1980, pp. 97-103).

The undue generalization of Marx's rent theory has made these approaches to property relations in land ahistorical. It also leads to strange political implications where the real estate sector is thought of as a separate class to capitalists and where every homeowner is a rentier. This is the result of an essentialism which muddles all kinds of private ownership of land with the category of a rentier class and the particular type of ground-rent it extracts.

Recognition of this misstep opens up an entirely fresh and innovative line of argument that is developed in the rest of the work. However, this also means parting company with land rent theorists in order to delve into unchartered waters.

My own argument of the lack of a national landed class only applies to the U.S. and the U.K. after 1940. It does not by default apply to all other countries as they need to be dealt with on a case by case basis. Nevertheless, differences exist clearly between the U.K. and U.S. systems of land tenure today. Contemporary U.K. tenure can be described as a 'repressed leasehold' model due to two reasons. Caps on how much ground-rent can be charged along with common leasehold lengths of between ninety-nine to a hundred and twenty-five years allow the freeholder to extract only a part of the total ground-rent. This situation is in stark contrast to the rack-rent or market-rate leaseholds of a single year's duration during the period of Classical

Political Economy. Moreover, freehold ownership of land is open to capital investment as a peculiar asset class due to the ruin of the landed gentry. The result is that much of even this ground-rent then accrues to capital as passive income. This repressed leasehold then comes to approximate the freehold system of U.S. land tenure.

If we were to imagine a spectrum of land tenure with owner-occupation without a landed class such as in the U.S. and, on the other end, a rack-rent leasehold tenure with a thriving landed gentry, the U.K today would far more closely approximate the U.S. system of freehold. The current tenure of repressed leasehold which prevails in the U.K. is only a shell of the former rack-rent leaseholds. To the degree this form of repressed leaseholds prevails in other economies they too come to approximate the U.S. land tenure. This allows for a high-degree of comparisons to be made between U.S. commercial real estate and those of other countries like the U.K. where only vestiges of a landed class remain. Comparisons become all the more valid when the other country in question has outright freehold owner-occupation as the dominant form of property relations in land.

Conversely, comparisons become increasingly difficult between the U.S. and another country if it boasts a powerful and widespread a landed class. Examples here are Latin American countries with a Latifundista class or regions within a country such as the province of Sindh in Pakistan which boasts a landed gentry. Care then needs to be taken in understanding the property relations in land before a useful comparative analysis can be conducted between two countries.

It is crucial to acknowledge the historical specificity of each country's system of land tenure instead of making universal generalizations. For example, it would be impossible to make sense of not only many Latin American countries but also Gulf States without recourse to the concept of the Landed Class. Moreover, since these rentier classes impact international capital flows, no account of the world-market can be complete without them.

Admission of this first analytical gap then serves as a springboard for developing a model where capital flows into land rather than being blocked from it. This is what creates the potential for a subtype of capital to specialize in the intermediation of commercial real estate. My aim is not to provide an exhaustive historical account of U.S. class structure and its consequences for the tenurial system. This has been done elsewhere. The point is to take account of the history and data in order to reorient land rent theory towards conditions which prevail in U.S. commercial real estate.

The second analytical gap in urban rent theory arises from categorizing all fixed improvements as fixed capital and not explaining how the two are related. But fixed improvements to land need not be only used as productive capital. In the nineteenth century, when agriculture and, subsequently, industrial production comprised the major portions of the economy it made sense to consider structures and infrastructure as exclusively a form of productive capital. Fixed improvements to land were considered to be a form of productive capital by Marx and as such a subcategory of fixed capital which he referred to as La Terre Capital (Marx, 1991, p. 756). The chief aim here of Marx was the same as that of Ricardo and Smith. He wanted to distinguish between rent on produced structures versus ground-rent which formed the principal source of revenue for landed property (Ricardo, 1996, pp. 45, 140). His writings, otherwise, on buildings and fixed improvements remain fragmented and incomplete (Marx, 1991, pp. 907-911). Today, in CRE, however, there is no landed class and agricultural real estate comprises a tiny fraction of CRE value. Deindustrialization has swept across the American economy along with the rise of financial services. Therefore, commercial buildings are commonly put to use outside production. Table 2 provides rough evidence for this by providing the cumulative price of commercial properties by their type.

Property Type	Square Footage	Price per sq. foot	Market Capitalization
Office	12,058,379,264	$102	$1,229,954,684,928
Industrial	23,851,606,671	$45	$1,073,322,300,195
Flexible Space	2,907,635,121	$75	$218,072,634,075
Retail	17,336,105,191	$101	$1,750,946,624,291

Health Care	2,634,773,693	$490	$1,291,039,109,668
Hospitality	2,556,726,260	$95	$242,888,994,700
Mixed-Use	107,651,632	$95	$10,226,905,040
Multi-Family	22,6643,500,00	$62	$1,403,897,000,000
Specialty, Sports & Entertainment	_____		$1,953,008,671,667
Total	**84,096,377,832**		$9,173,356,924,466

Table 2 – Market Size by Property Type in Rentable Building Area and Market Capital Based on Mean Mid-point of 2009 (Adapted from Florance, et al., 2010, p. 107)

The four major CRE asset types are office, industrial, retail and multi-family. In mid-2009, the combined estimate of all the major uses amounted to approximately $9.1 trillion (Florance, et. al, 2010). In addition to the $9.1 trillion above other miscellaneous special sub-classes of CRE amounted to another $1.9 trillion at the time. Of the latter amount, the CRE value of prisons was $632 billion; school buildings were $522 billion; CRE held for religious purposes was estimated to be 427 billion and movie theaters was $66 billion (Florance, et al., 2010, p. 107).

Unfortunately, there is little data on value of improvements versus the price of land per property type.[4] Nevertheless, it can still be concluded that income-producing fixed improvements which comprise a portion of this price are put to all variety of uses. They are utilized to earn a profit by all types of functioning capital as well as individually consumed as residences by renting households. As a result, companies which specialize in the intermediation of CRE lease, buy and sell to all sectors and households. Therefore, fixed improvements cannot be only considered to be productive capital. This observation calls the for a broader concept of fixed improvements which are used to generate profit by functioning capital or rented out.

Chapter three responds to this lacuna by distinguishing the concept of fixed improvements from immobile fixed capital. The shorthand I use for fixed improvements is buildings. By the term buildings here I only mean income-producing structures and infrastructure. This includes all forms of physically immovable capital entrenched into the ground. Buildings then comprise all forms of immobile capital that may be sold for use in

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[4] BEA Table 2600 , The Balance Sheet for Non-Financial Assets does not break down the value of real property value between produced structures and land.

production, circulation or individual consumption. This clarification captures the universal use of income-producing structures and infrastructure. Immobile fixed capital then is only a subset of all buildings. The term buildings as I use here excludes all non-commercial structures such as public establishments and owner-occupied homes.

In section 3.2, I clarify the relation between immobile fixed capital and buildings. I also argue that buildings have three unusual demand attributes. The demand for them is small-scale, segmented and unstable. In section 3.3, I turn to analyzing the relation between buildings and land which as an unproduced commodity which forms a universal condition of existence and production. Section 3.4 offers a chapter synopsis.

The third analytical gap in urban rent theory stems my third observation that there are companies which specialize in CRE. If there is no landed class, then this leads to the question as to what sort of capital do they constitute? For starters, these companies are not engaged in production of buildings which is carried out by the construction sector. Rather, they behave as intermediaries for CRE. The table below breaks down the list of top 10 brokerage firms in CRE in terms of the volume of sales and leasing.[5]

Rank	Company	Sales (in millions)	Square Feet Leased (000)	No. of Brokers	Property Types[6]
1	CBRE	$264,600	1,600,000	9,250	O, I, R, M, X
2	Cushman & Wakefield	$133,000	693,000	4,506	O, I, R, M, X
3	Newmark Knight Frank	$170,711	–	6,613	O, I, R, M, H, Ho, St, Se, X
4	NAI Global	$15,000	51,000	6,500	O, I, R, M, H, Ho, Se
5	Colliers	$27,295	388,981	–	O, I, R, M, S, X
6	SVN International Corp.	$12,300	28,576	1,300	O, I, R, M, Ho, X
7	Marcus & Millichap	$49,706	–	2,021	O, I, R, M, H, Ho, St, Se, X

[5] The rankings, unfortunately, are missing three of the largest CRE firms Prologis, Black Stone and Brookfield Properties which refused to self-report.

[6] Key: O = Office, I = Industrial, R = Retail, M = Multifamily, H = Health Care, Ho = Hospitality, St = Student Housing, Se = Senior Housing, X = Other (incl. land)

8	Kidder Mathews	$4,624	170,967	432	O, I, R, M, X
9	TCN Worldwide	$21,476	66,058	1,500	O, I, R, M, X
10	Matthews Real Estate Investment Services	$4,709	6,627	141	O, I, R, M, H
11	SRS Real Estate Partners	$1,678	8,774	154	R
12	Stream Realty Partners	$989	40,208	181	O, I, R, H, X
13	Transwestern	$3,313	59,120	380	O, I, R, M, H, X
14	Greysteel	$1,368	–	49	R, M
15	Berkadia	$9,215	–	122	O, M, Ho, S, Se, X

Table 3 - Top 15 Largest Brokerage Firms of 2019 in terms of combined sales and leasing activity (Commercial Property Executive, 2020).[7]

Four insights about commercial property companies can be gathered from the table above. First, CRE is a specialized field of intermediation consisting of the purchase, sale and leasing of properties. Second, firms may even sub-specialize as intermediaries in a specific type of property.[8] Third, their profits are drawn from intermediary activities and, therefore, from the sphere of circulation instead of production. Fourth, these firms provide intermediary services not just for productive capital but also for other capitals of circulation and consumption.

Nevertheless, the process of the intermediation through which all property types come into existence follows the same basic four steps. This is usually referred to as the development process and the agents who carry it out are referred to as property developers in common parlance. First, the developer purchases the site. Second, the realtor commissions the design for buildings. Third, the realtor commissions construction. Fourth, the realtor promotes the newly finished units for sale or rent (Peca, 2009; pp. 65-69; 74-86; 134-150; Brown, 2015, pp. 61- 72). Each step acts as a precondition for the next in the sequence. Property development is the premise upon which all other intermediary services arise. All other tertiary activities, such as the secondary sale and leasing of buildings, portfolio and asset management, research, etc. can only occur once there is commercial property.

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[7] For top 20 rankings in terms of outright dollar amount of properties owned see Hamann, 2020, available at: https://www.commercialsearch.com/news/top-20-commercial-property-owners-of-2020/
[8] This is because different types of property exhibit distinct economic characteristics such as vacancy rate fluctuations, etc. (Grenadier, 1995; Wheaton, 1988; Charles, Glenn and Donna, 1991). This generates information asymmetries amongst CRE asset classes.

In sum, CRE firms are then best thought of as merchants. However, urban rent theory has no fundamental category under which property firms are classified. To ameliorate this, chapter four introduces the concept of realtor's capital as a type of merchant. It is a subtype of commercial capitalist specializing in the intermediation of buildings and, thereby, land. This is a simplification which allows me to hone in on buildings as a distinct source of realtor's profits.

Through the four-step process outlined above realtor's capital carries out seven functions which form its raison d'etre. First, it initiates production through purchasing the site and commissioning the producers. Second, it lowers the circulation time of buildings. Third, it reduces the circulation costs of buildings. Fourth, it lowers production time by acting as the central coordinator between design and construction. Fifth, it lowers the production costs by sourcing the cheapest design and construction contractors. The realtor is obligated to carry out the latter two activities because unlike a conventional merchant his money is tied up in production. Sixth, the realtor decreases the circulation time of land. Seventh, the realtor also curtails the circulation costs of land.

In return for these services, realtor's capital receives the average rate of profit. In section 4.2, realtor's profits from sale are analyzed. Realtor's profits from the sale of buildings are determined in like fashion to that of commercial profits as outlined by Marx in Chapter 17 of Volume III (Marx, 1991, pp. 394-416). The role of the price of land price in chapter four is ignored as no explanation for its source is provided at this point. This allows me to hone in on the nature of realtor's profits from buildings instead.

On the other hand, when the realtor enters the market looking to lease the property it behaves like a lender. In section 4.3, building rent from the renting of buildings is analyzed in its component parts of depreciation plus interest on the price of production. Section 4.4 looks at four sources of moral depreciation of buildings. Finally, section 4.5 summarizes the chapter.

The fourth lacuna in urban rent theory emerges from my fourth observation that firms become more profitable through physical proximity to one another. Economists term this agglomeration economies. Urban rent theorists have consistently focused on the advantages drawn from the technical division of labor rather than the social division of labor which arises from the town-country divide. This is owing to their essentializing the sources of agrarian land rent which accrued to the British gentry. Therefore, contemporary political economy has no framework for understanding the economic benefits conferred by agglomeration to firms.

During most of the nineteenth-century, the primary sector dominated the British economy. Consequently, the major portion of land price was also derived from these activities. It, therefore, made sense for classical political economists to develop theories focused on the technical division of labor to uncover the source of ground-rent in agricultural and mining. Long since, the U.S. economy has been industrialized. Today, services account for three-fourths of the American economy while the primary sector represents about two percent. Unlike the agrarian sector which is by its nature dispersed, industrialized services and goods production cluster together. It is this agglomeration of firms and workers which results in high-density populated areas that are referred to as urban. To put matters in perspective:

'Roughly 75% of Americans live in cities as defined by the Census Department, and yet cities occupy only 2% of the land area of the lower 48 states. A similar story could be told for any other developed county: labor and capital are both heavily concentrated in cities.' (Rosenthal and Strange, 2004, p. 2121)

The overwhelming majority of land price today is also found in urban areas. And a handful of metropolitan areas account for much of the cumulative price of urban land. Between 2005 to 2010, the five conurbations of New York City, Los Angeles, Chicago, San Francisco and Washington D.C. were estimated to account for 48 percent of the approximate $25 trillion in total urban land price (Albouy, Ehrlich and Shin, 2018, pp. 14-19). This estimate lumps together residential and commercial properties. Nevertheless, it shows that agglomeration has resulted in a miniscule fraction of the total U.S. land surface comprising almost half of the country's land

price. This statistic is then prima facie evidence that agglomeration provides benefits to urban firms.

The wide array of economic advantages to clustering of enterprises in cities and regions spawned the field of agglomeration economics. And the literature on agglomeration is ever-growing with new studies being regularly churned out (Fujita and Thisse, 2002; Glaeser, 2019). Scholars, however differ in their lines of inquiry and emphasis as to the primary cause which lays underneath clustering.[9] Urban Economists such as Edward Glaeser have primarily focused on the role of lower transport costs for 'goods, services and people' while relegating other factors such as natural advantage of locations to secondary importance (Ellison, Glaeser and Kerr, 2010; Glaeser, 2011, p. 6-7, 12-14, 202-206). The most famous exponent of this line of argument is Paul Krugman. Drawing upon advances made in the field of geography decades before but lesser known in Economics, Krugman developed a microeconomic frame to show how clustering leads to increasing returns to scale through minimization of transport costs (Krugman, 1991; Scott, 2000, pp. 487-488).

A closely related line of research has emphasized knowledge spill-overs between firms and people as the main benefit of clustering. Certain scholars have stressed the benefits of labor-pooling as the primary advantage of cities. The empirical focus here has been on how cities concentrate knowledge through amassing college educated professionals resulting in wage and salary premiums (Diamond, 2016; Florida, 2018; Moretti, 2004a, 2013).[10] In recent decades, there has come to be a greater focus on empirical rigor through collection of establishment level data to better track the impact of agglomeration on productivity (Duranton and Kerr, 2004).

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[9] Agglomeration Economics forms a subfield in its own right. The scale of the literature on here is immense and growing. I will here only point out the main lines of inquiry in the field. For exhaustive literature reviews see Feldman, 2000; Carlino and Kerr, 2015; Combes and Gobillon, 2015. For the specific impact of public transport on agglomeration economies see Chatman and Noland, 2011.

[10] A more disturbing variant of this line of argument is found in the work of Richard Florida who claims geographic inequality is due to the self-sorting of members of society according to their level of intelligence. Simply put, intelligence determines education and class rather than the other way around. Resuscitating Social Darwinism, the 'creative class' thesis amounts to little more than an apologia for growing regional inequality (Florida, 2002a, 2002b; Florida, 2018).

Perhaps, an additional piece of evidence at the meso-level is the land lot size itself. Studies have consistently shown that generally smaller parcels of land command a higher price per square unit of area than larger ones which have been not subdivided for more intensive use. It is referred to as the 'Plattage Effect', because the process of subdividing plot which entails higher circulation costs per square unit of land is called 'Platting'. This effect holds true at all distances from the city center. One explanation is that circulation costs of land subdivision are passed onto the buyer generating the illusion of higher land price.

But a complimentary explanation for the Plattage Effect lies in the need for an ideal lot size per type of property. Any unused or unusable space which only elongates distance between buildings without any other benefit lowers the price of land (Albouy, Ehrlich and Shin, 2017, p. 14; Albouy and Ehrlich, 2014, p. 10; Nichols, Oliner and Mulhall, 2012, p. 13; Isakson, 1997).[11] The Plattage Effect then is partly an outcome of the economic benefits conferred by clustering.

Both Agglomeration Economics and Urban Economics are based upon the neoclassical microeconomics (Duranton and Puga, 2004; Krugman, 1991). The study of agglomeration has origins in the earlier work of Alfred Marshall and Alfred Weber on industrial location (Massey, 1973, p. 33; Krugman, 1991, pp. 484-485). Urban Economics, on the other hand, spawned out as a distinct field from the Alonso-Muth-Mills and Rosen-Roback spatial equilibrium models. The former showed spatial equilibrium within a city while the latter determined the existence of spatial equilibrium amongst cities (Glaeser, 2007, pp. 6-12). Land here is treated essentially as a uniform factor of production identical to capital, thereby, jettisoning its most distinctive trait of locational heterogeneity.[12] Geographers and political economists have consistently critiqued the lack of realism of the micro foundations of agglomeration and urban economics (Martin and

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[11] A minor counter-trend is when land-assembly which unites many smaller plots leads to a higher-land price. Scholars have referred to it as the 'plottage effect'. Although, existent in urban areas this is the exception to the rule (Colwell and Sirmans, 1980 , pp. 141-144).

[12] Arguably, capital fares even worse in the Alonso-Muth-Mills models. As Wheaton states: 'It should be clear that the central, and in many respects unrealistic assumption of such models, is that housing capital is neither physically nor economically durable. Without durability, there is no opportunity cost to old capital, no barrier to change, and no history to an urban area' (Wheaton, 1982, p.53). Nevertheless, an alternative explanation of the benefits of agglomeration is yet to be delivered by political economy.

Sunley, 1996; Dymski, 1996; Harvey, 2009, pp. 162-178; Storper and Walker, 1989, pp. 3-4, 34-35, 52-53, 70-73; Massey, 1973).

I agree with the critique of microeconomic theoretical foundations but still, nonetheless, recognize the validity of the empirical insights of agglomeration economics. Agglomeration does improve profitability of urban firms through proximity. Therefore, the question then still stands as to how does clustering benefit urban capital?

In chapter five, I argue the source of urban land price is the declining profit gradient caused by agglomeration. The rate of profit is highest in the center of a cluster where the benefits of agglomeration peak. It then declines with distance from the center as agglomeration economies wane. This creates zones of surplus, average and below-average profits. In 5.2, I describe how agglomeration creates the profit gradient for productive capital. In 5.3, I illustrate how agglomeration generates a profit gradient for commercial capital. Section 5.4 does the same with financial capital. In 5.5, I explain how labor-pooling also reinforces the declining profit gradient. Section 5.6 provides a summary.

Through this chapter I lay bare the source of urban land prices as the relative profitability of a location in comparison to the rest of the economy. Urban land prices can then be understood as a function of the rate of profit.[13]

This bring me to the fifth analytical gap of urban rent theory which derives from my observation that urban land prices tend to decline with distance from the center of an agglomeration just as the rate of profit does. Numerous studies have also conclusively proven how agglomeration patterns create an urban commercial rent gradient with land prices falling towards zero with distance from the center of metropolitan areas.

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[13] I mean to exclude the consideration, therefore, of residential-use and non-profits. This is not to say they do not exhibit a similar urban land price gradient.

CRE land prices display a clear crest shape or what may graphically be depicted as concave. These central nodal points signify that CRE land prices are at their peak in central business districts (CBD), commercial districts or manufacturing centers in an urban area. From there land prices decline towards zero at varying rates. Research has also found that cities can have minor upturns in certain directions along the overall decreasing rent gradient. Such uplifts indicate minor commercial centers or CBDs within a city. Two main methods have been used to estimate the price of land. The most popular has been the 'residual price' method where the current replacement cost of the depreciated buildings is subtracted from the total price of the property. An alternative approach builds on transaction data on vacant land sales in metropoles. Both methods have repeatedly confirmed the negative land price gradient with distance from the city center. The scholarship is sizable and in broad agreement. (Hodge, Sands and Skidmore, 2017; Brownstone and Vany, 1991; McMillen, 1996; Ecker and Isakson, 2005; Clapp, Cohen and Lindenthal, 2021, pp. 1-5, 5-9, 40; Nichols, Oliner and Mulhall, 2012, pp. 17-18; Barr, Smith and Kulkarni, 2018, p. 6; Haughwout, Orr and Bedoll, 2008, pp. 2-6).[14]

Debates, however, do exist as to the rate at which prices fall in varying directions from a CBD and the effect of plot sizes at various distances on the price of land (Colwell and Munneke, 1995, 2003, 2009; Colwell and Sirmans, 1980; Colwell and Stirmans, 1993; Albouy and Ehrlich, 2014, pp. 10-14).

It is important to distinguish declining urban land prices with distance from the center as an empirically observed regularity from the neoclassical spatial equilibrium explanations for it such as Alonso's bid-rent model (Alonso, 1964). The declining gradient of urban land prices is ubiquitous, regardless of the microeconomic explanations for it.

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[14] For studies focusing only on residential real estate see Dye and McMillen, 2007; Davis, et. al, 2021; Davis and Palumbo, 2008. These studies confirm the existence of a negative land price gradient for residential property as well. The residual approach can be applied to the primary sector as well. For its application to the land price of mines, see Landefeld and Hines, 1985.

As discussed above, the benefits of agglomeration for urban firms decline with distance from the center which in turn causes the rate of profit to fall. It then makes sense to think of the declining urban land price gradient as a function of the declining rate of profit. A city may have more than one such center where land prices peak such as a CBD and a separate commercial district. This 'polycentric' model does not fundamentally alter matters.

In section 6.2, I demonstrate how urban land prices derived from current-use are a function of the negative profit gradient. Land price is positive in areas of above average profits, equal to zero where profits are average and negative in areas of below average profits. Land price from current-use is the greatest where the rate of profit is highest because of clustering. And as the rate of profit falls from these city centers due to declining advantages of agglomeration so does the price of land.

In section 6.3, I show how in freehold ground-rent comes into existence through leasing of property with a positive land price. I then elaborate on the distinct character of this ground-rent. The urban rent gradient also begs the question as to how does realtor's capital as an intermediary maximize urban land prices and collect the average rate of profit? This is tackled in section 6.4. I develop a model of realtor's profits through redevelopment of urban land towards the alternate-use with the highest land price. I show that the realtor earns a commercial profit of an average amount through purchasing land for development at its wholesale price and selling it at its retail price. Once sold, the retail land price becomes the price of land from current-use. Section 6.5 closes out the chapter with a summary.

The sixth analytical gap arises from the lack of understanding of the different sources of income of commercial-use and residential-use properties. This lacuna derives from my sixth observation which is that occupiers of residences do not make a profit. Until chapter seven I limit my discussion to income-producing properties owned or rented by commercial users looking to make a profit. But a property used as a residence by its occupiers, which is rented out by its owner is also an income-producing property. These can be single-family homes or multifamily

apartment complexes. Multifamily buildings form one of the four major 'asset-classes' of CRE. The National Association of Real Estate Investment Trusts calculated the cumulative value of multifamily rental properties to be $2.9 trillion in 2018 (NAREIT, 2019). The single-family rental market in the same year was estimated to be $2.3 trillion (Eisfeldt and Demers, 2018, p.2). Similarly, any home which is owned or developed by a firm for the purpose of future sale also comprises commercial property. This is because it is used by the current owner not as a residence but to earn an income. Properties then geared towards residential-use are not the same thing as residential real estate. They only become residential property when they are bought for consumption and fall out of circulation as a commodity.

The sixth observation then leads to three questions. First, how do land price and ground-rent arise for residences? Second, does personal revenue come to form a source of realtor's profits here? And if so, then how?

I answer these three questions in chapter seven where I examine the sources of realtor's profits from the sale and rent of homes. In 7.2, I show that when in a location supply equals demand, residences sells at their price of production. When supply outstrips demand, a negative land price arises, and residences are devalued, selling below their price of production. Until this point, the sources of realtor's profits remain the same as in the case of other commercial properties. Here money is used as a mean of circulating commodities. The money equivalent is exchanged for the produced commodity

However, personal income comes to comprise an additional source of realtor's profits in three cases of residential land price, building rent and ground-rent. Here money functions as a means of payment without equivalent. I will briefly outline each case.

In 7.3, I show that residential land price arises through a bidding process between buyers when demand exceeds supply. Realtor's profit from the sale of land price finds its source here in either the value of wages of labor-power or luxury consumption of capitalists from surplus value

they withhold. This residential land price, as a consequence, now competes with commercial land prices.

Section 7.4 explains that in the case of residential building rent, the charge for depreciation is an equivalent exchange between commodity and money. But the interest paid on the price of production of the building is without equivalent. And the tenants are not firms but instead households. It is, therefore, also either a deduction out of the value of wages or surplus value used for capitalist consumption. Similarly, when a residence with land-value is leased, the realtor accrues a residential ground-rent as interest on the land price. This residential ground-rent also has its source in wages or luxury consumption.

Section 7.5 provides a synopsis. With chapter six part two comes to an end. Having covered the sources of realtor's profits I turn to analyzing the four stages of turnover of realtor's capital. the process of intermediation itself and how realtor's capital goes about this task.

In part three, I analyze the turnover of realtor's capital through which it carries out the seven functions and recoups an average profit. It consists of an introduction followed by chapters eight to eleven. The four chapters sequentially cover each of the four stages of turnover. In them I explain *how* the realtor carries out the seven functions.

In the introduction to part three, I summarize why the turnover of realtor's capital is distinct to the proverbial commodity-dealer. This is because of three peculiar demand traits of buildings. First, the demand for buildings is segmented because of the immense variety of land-uses (Geltner and Miller, 2001, pp. 4-9). Second, it is small-scale in quantity as buildings can only be used locally and they are highly durable. Third, the amount of quantity demanded is unstable because the demand for buildings is derived from other local economic activities (Sivitanidou and Sivitanides, 2020, pp. 22-25). These demand traits make design and construction firms dependent on the realtor to commission them. Production cannot take place independently of the realtor. The result is a four-stage turnover process for realtor's capital which is reminiscent

of the putting-out system. First, the realtor buys land with his own money. Second, the realtor commissions the design for buildings. Third, the realtor commissions construction. Fourth, the realtor promotes the finished development. I base these four stages of turnover of realtor's capital on the four following observations.

My seventh observation is that realtors specialize in acquiring land. The lack of analysis of this creates the seventh gap in urban rent theory that I look to fill in chapter eight. To begin with, unlike moveable goods, new buildings require additional space as a precondition. And it is the realtor who looks to secure land for a project by advancing money out of pocket as the first step in the development process.

The purchase of the site brings with it a unique set of costs and also requires the expenditure of time. This is because plots of land are heterogeneous in their quality. There are three reasons for this. First, sites have differing geophysical characteristics (Kone, 2006, pp. 85-93, 123-144; Miles, Berens, Weiss, 2000, pp. 227-228; Burchfield, Mary, et. al., 2006; Combes, Pierre-Philippe, et al.; Malpezzi, 1996; Malpezzi, Chun and Green; 1998, Saiz, 2010; Rose, 1989a; Rose 1989b). Second, there is the social aspect of adjacent claims to property and the surrounding built environment (Peiser and Frej, 2003, p. 104, 222, 314; Miles, Berens and Weiss, 2000, pp. 224-225, 228). Third, land plots are heterogenous due to local property laws governing their use. (Fischer, 2015, pp. 307-312; Berke, et. al., 2006; Eaton and Eaton, 2007; Peca, 2009, pp. 57-58).

Next the realtor needs to hone in on a market segment and see if developing land will be profitable. This leads to the second phase of land acquisition where the realtor looks to hone in on a distinct market segment through a market study. And in order to estimate the rate of return on the project and the maximum bid he can make for the plot of land the realtor carries out a financial feasibility analysis (Peca, 2009, pp. 58-59, 65-73, 115-133, 158).

This observation leads to the question of how to characterize the costs and time consumed in site acquisition. In chapter eight, I categorize the costs and time incurred in searching and buying a site as purely the circulation costs of land. In section 8.2, I explain that varying geophysical traits, social surroundings and land-use regulations make land heterogeneous. This heterogeneity adds to the costs and time of buying land. The realtor in turn specializes in the surveillance and knowledge of each aspect and, consequently, minimizes the circulation costs and time.

The costs entailed in the marketing and financial studies are, on the other hand, the circulation costs and time of the commercial property as a whole. In 8.3, I cover how the realtor, after having found a suitable location, carries out marketing and financial analyses. The marketing study helps lower the costs and time of circulation time of promotion later on by honing on a market segment. And the financial feasibility study determines whether the realtor can make an average profit. In 8.4, I recap the chapter.

My eighth observation is that realtors commission the design production of buildings. There is no framework in urban rent theory for analyzing this and this creates the eight gap in the literature that I fix. This is because the demand for buildings is segmented, small-scale due to fixed location, and, unstable. There is no reliable large-scale demand here and no mass production. Therefore, the producers of design depend on the realtor as the merchant to commission them. And the realtor has to first commission the design of buildings before construction can begin.

In order to make the average profit the realtor needs to understand well the needs of the target market. This comes down to the design customers want and the price they are willing to pay. Otherwise, the design will fail to impress. Realtor's capital then has to work with designers of buildings such as urban planning firms, engineering firms and, of course, architects. The realtor also has to ensure that overhead time and costs are minimized as design creation requires the input of several independent producers (Miller, et. al., 2009, pp. 8-11; Brown, 2015, pp. 123-157;

Peca, 2009, pp. 91-104, 145-147). After all, it is the realtor who pays out of pocket to commission the design firms.

Two questions arise from the contracting of design firms by the realtor. First, how should the costs and time incurred by the realtor and the producers be classified? Second, how does the realtor overcome the fragmented nature of the design process which is carried out by multiple design firms at once?

In chapter nine, I answer both questions by arguing that the instigation and management of design comprises the second stage of turnover of realtor's capital. I characterize the costs and time incurred by the realtor as circulation costs and circulation time. The realtor or the developer is not a productive capitalist. Realtor's capital is a merchant who commissions and coordinates production but does not carry it out. The producers of the design, on the other hand, do incur production costs and production time.

In section 9.2, I explain how the realtor coordinates between architects and engineers to finetune a design and its costs so it is attractive to prospective clients. This lowers the circulation costs and time. The realtor also acts as the brains of the project through coordinating between the various design firms. This lowers the costs and time of a fragmented production process. Here the role of the realtor is reminiscent of the merchant manufacturers of early capitalism.

Once the design is ready, the realtor looks to secure construction loans. In 9.3, I go over how the realtor lowers the circulation time and costs attendant with gaining finance for construction. In 9.4, I provide a chapter summary.

My ninth observation is that after a design is ready, the realtor commissions construction. There is no work in urban rent theory which tries to place this within a larger turnover process. This leads to the ninth analytical gap I look to fix.

During the construction stage the realtor faces a conundrum. He has to organize construction of a building targeted towards a niche market and which will be sitting on a plot of land with its own peculiarities. Both aspects combine to make buildings a heterogeneous commodity. This heterogeneity means the costs will vary from one design to the next. It also means buildings are almost always a non-fungible commodity making cost comparisons between them difficult.

As a result, construction just like design is an unstandardized process. Once the physical construction commences, the design might even require alteration. This is what makes subcontracting in construction different and more difficult than it is normally in manufacture (Lepatner, 2007, pp. 7-31, 33-63; Peca, 2009, pp. 134-150). And as the realtor is paying out of pocket he is be on the hook if the project exceeds the feasibility estimates made in the first stage when the land was bought. Therefore, the realtor, even as a merchant, looks here to minimize production costs and time along with circulation costs and time.

The question here is how does the realtor lowers both production costs and time as well as circulation costs and time? This is the subject of chapter ten in which I analyze the initiation and coordination of construction as the third stage of turnover of realtor's capital.

In section 10.2, I outline how the realtor initiates construction through an auction where the lowest bidder is awarded the construction contract. Here, the realtor lowers circulation costs and time of the bidding process while lowering production costs by selecting the cheapest contractor. First, the realtor initiates a bidding process on the design blue-print. By igniting market competition amongst construction contractors, the realtor overcomes the problem of determining production costs given the heterogeneity of design. The lowest bidder wins the construction contract. Through the bidding process then realtor's capital minimizes productions costs. The realtor here as a merchant also specializes in keeping the circulation time and costs of the bidding process as low as possible.

In section 10.3, I move to analyzing the role of the realtor amidst physical construction. When physical construction commences the realtor takes up a managerial role. If the design needs to be altered, the realtor coordinates between design and construction firms in order to minimize production time. The realtor also works to find the most cheaply priced additional materials and design solutions to lower production costs. Finally, during construction the realtor curtails the circulation time and costs of monthly loan withdrawal meetings through expertise in negotiations and project management. Section 10.4 summarizes the chapter.

My tenth and final observation is that after construction, the realtor promotes the new development for sale or leasing. There has been no application of the categories of political economy to this function of the realtor. This creates the tenth analytical void I look to fill in chapter eleven.

In this last stage of turnover, the realtor having acquired the finished development now becomes a vendor. Promotion of the property might have been ongoing from before, but the circulation of a new property is logically sequential to production being finished. Even pre-leasing is predicated on the assumption that the work will be actually completed by a certain date.

The realtor no longer purchases inputs but rather sells the output. Nevertheless, he is selling a product for a local niche market. The demand for commercial property, which is composed of buildings and land, is segmented, small-scale, and irregular. Therefore, his strategy cannot be the same as that of the proverbial commodity-dealer who purchases and sells en masse. The promotional strategy needs to be highly targeted. The question here arises how does the realtor go about doing this?

In chapter eleven, I analyze the promotion of a new development as the fourth and last stage of turnover of realtor's capital. In section 11.2, I go over the realtor's marketing plan which is composed of the 'four Ps' of product, price, placement and promotional strategy. Through a focus on these four elements, the realtor lowers the circulation costs and time of vending. The

point here is to make the marketing campaign a coherent extension of the marketing studies carried out during site acquisition which formed the first stage of turnover. Realtors break down marketing into the four components of product, placement, price and promotional methods.

First, the realtor needs to understand how the finished development as a product appeals to the needs and tastes of the demand segment. Second, the placement needs to be in a location which is useful to the demand segment and aesthetically pleasing. Third, comes pricing. Given the niche market the realtor needs to know the maximum they are willing to pay and if this will allow him to recover his expenses along with the average profit. If this bar is not met, the realtor has sunk his capital into a below par project. Finally, the promotional strategy is also dependent on the demand segment as a demographic group. For example, in the case of multifamily buildings, strategies to attract seniors will be very different than those for families or young singles. The same also applies to firms (Sirgy, 2014, pp. 22-40, 43-63). Through this specific four-pronged strategy, realtor's capital then lowers the circulation costs and time of vending the commercial property. This covers the 'how' but a deeper question which arises here is the specific form of fetishism given off by the commercial property when being sold as a commodity.

In 11.3, I propound the five aspects of the fetishism of commercial property. Here I hone is on the peculiar fetishism of land in freehold conditions where it seems interchangeable or mutually substitutable with capital. The result is that in Economics land becomes mistakenly conflated with capital rather than considered a distinct factor of production in its own right. Section 11.4 concludes the chapter.

Chapter 2: Literature Review – The Essentialism of Urban Rent Theory

Section - 2.1: Introduction

Fundamental explanations for ground-rent have been offered by Neoclassical, Ricardian, Marxian and Georgist schools of economic thought (Alonso, 1964; Evans, 1991, Buchanan, 1929; Ricardo, 1996; Scott, 1980; Marx, 1991; George, 2009; Gaffney, 1994a). Growing interest in land rent spawned a sizable debate within the Marxian approach from the 1970s to the early 1990s. Here the debate between Michael Ball and Ben Fine on how to conceptualize differential and absolute rent soon became a classic. These articles also helped clarify how Marx's approach to ground-rent was different to Ricardo's (Ball, 1977, 1980; Fine, 1979, 1980). As so did the dispute ignited by Michael Ball's later outright rejection of urban rent theory (Ball, 1985, 1987; Clark, 1987; Haila, 1989; Kerr, 1996). This second debate marked the decline in interest in the sources, levels and process through which land prices are formed. To me it seems there was a tacit acceptance of Ball's call for focus on institutions instead of land rent, even if all the while being overtly protested (Ward and Aalbers, 2016, p. 12). The contemporary literature on financialization of real estate and housing emphasizes institutional change while ignoring the question of how land prices come into existence (Aalbers, 2017; Aalbers, Fernandez, Wijburg, 2020; Blakeley, 2021). This body of literature shares strong affinities to the institutional approach to housing that Ball himself developed separately (Ball, 2016).

Anne Haila's excellent overview of the land rent literature still stands as the most encyclopedic source summarizing the rise and demise of rent theory (Haila, 1990). In due course, Haila's writings would distinguish her as one of the few scholars who continued to investigate land rent (Haila, 1988, 1991, 2006, 2015; Obeng-Odoom, 2021). In more recent years, there has been a revival of ground-rent theory through a younger generation of scholars. This literature argues for the wider applicability of Marx's theory of ground-rent to all non-renewable resources as well as in cases where the worst land does not determine market value (Basu, 2018; Balardini,

2013, 2017). There is also growing focus on formalization of ground-rent models (Das, 2018; Basu, 2020).

In this chapter, I restrict myself to covering the literature focused on uncovering the sources, levels and process of urban rent formation. The contribution of this literature review is to show that Marx's theory of ground-rent for agrarian rack-rent leasehold conditions cannot be applied to urban land where freehold is the form of land tenure. The usual procedure of explanation of contemporary urban rent by analogy to nineteenth century British agricultural conditions fails in three crucial ways. First, it mischaracterizes the sources of urban land price and ground-rent. Second, it obscures the process through which land prices and ground-rent come into existence. Third and consequently, it is unable to determine the levels of land price and ground rent. This is the result of the first analytical gap of urban rent theory, as it does not acknowledge the nonexistence of a landed class in the United States. In fact, freehold is the form of land tenure along with the majority of commercial real estate being owner occupied.

This chapter is divided then into five further sections. In Section 2.2, I provide an overview of the historical context, framework and assumptions of Marx's rent model. Section 2.3 moves onto covering the specific pitfalls of the application of the first form of differential rent – the extensive margin - to the urban context. In section 2.4, I critique the applications of the second form of differential rent – the intensive margin – to the urban context. And in section 2.5, I detail the factual inaccuracies which arise from the superimposition of the category of absolute-rent in urban contexts.

Sections 2.3 to 2.5 follow the same pattern. They are composed of two parts. First, I sum up the specific theory of rent. Then, I will detail how its application to the urban freehold context fails to account the process, sources and levels of urban land prices and ground-rent remain unaccounted for. Finally, in section 2.6, I sum up the need for a new framework which goes beyond argumentation by analogy.

I would like to make two clarifications before beginning. First, I recognize a number of these urban rent theorists wrote their studies in non-American contexts. Nevertheless, the urban ground-rent theory which emerged from such case studies was supposed to be of general applicability. These frameworks espoused to be 'nomothetic'. Therefore, it is fair to criticize these takes on land rent using the American context.

Second, this literature review is not an outright rejection of the need for urban rent theory. Rather, the insights developed through it are used as building blocks for the alternative explanation for the determination of the process, sources and levels of land price in urban freehold. The main point here is that urban rent theory was unable to account for urban land price because it did not acknowledge that there is no landed class today in America which draws its wealth and revenue from rack-rent leaseholds. By essentializing landed gentry one also ends up superimposing a bygone form of land tenure on currently prevailing freehold conditions. The result is an analysis devoid of any empirical inquiry and entirely oblivious to the proceedings in American commercial real estate today.

All critiques should have a negative moment where they point out the limitations of current thinking and a positive moment where they begin to reconstruct alternatives. This chapter plays the negative role but through it I set up the foundations for the rest of my contribution.

Section - 2.2: Overview of Marx's Rent Theory

Land is an unproduced commodity without any labor-time congealed in it. Marx, in akin fashion to the Classical Political Economists, thus, reasoned that the price of land derived from capitalized annual ground-rent which accrued to the landed proprietor (Marx, 1991, pp. 762, 786-787). Ground-rent then needed to be explained in a manner consist with his overall theory of value.

Here four aspects of economic history need to be kept in mind which form the backdrop to his explanation of ground-rent. First, the British landed gentry since the eighteenth century had gained full ownership of the land and instituted short-term rack-rent leaseholds (Allen, 1982, Beckett and Turner, 2004, p. 284). Second, the period between 1850s to 1870s, referred to as 'High Farming', saw a turn towards the intensive application of capital to raise crop yields (Perry, 1978, pp. 364-365). Third, until the 1870s, the British landed gentry was the wealthiest class across Great Britain and the United States. And the preponderant foundation of this wealth was also the ownership of farmland (Cannadine, 1996, pp. 90-92). Fourth, substantial portions of non-capitalist forms of land tenure in England, survived well into the nineteenth century. Both, long-term leaseholds of 99 years and copyhold tenures could be passed down generationally. Copyhold also gave the peasants an inalienable right to the soil through the manorial court (Beckett and Turner, 2004). This means non-capitalist production methods continued to form a sizable portion of the domestic grain produce.

It is then understandable that Marx's framework was developed to account primarily for ground-rent in agriculture which accrued to a landed class. However, his theory could account for ground-rents extracted in mining and the rare case of manufacture using waterfalls (Marx, 1991, pp. 779-787, 910). It also makes sense that a major portion of his rent theory emphasized ground-rent as a result of more capital-intensive farming (Marx, 1991, p. 812-823). Lastly, given the substantial amounts of non-capitalist peasant production in existence at the time it also

becomes clear why Marx's rent theory had precapitalistic elements to it.[15] For example, he reasoned that, generally, though not always, the worst land came to govern the market price.[16] This was because the most expensively produced corn by capitalist methods along with that produced by peasants formed the bulk of the majority on the market. Therefore, it came to form the heaviest component of the weighted average socially necessary labor-time in agriculture. As a result, it governed the price of production of corn (Marx, 1991, p. 815). As he put it:

'the market price is determined by those producers who work on inferior soil… A large part of the total capital applied in agriculture…is to be found in their hands…the peasant, for example devotes a great deal of labor…But this labor is isolated and deprived of… productivity…The effect…is that the genuinely capitalist farmers…appropriate…surplus profit' (Marx, 1991, p. 815).

This basic outline of historical conditions at the time helps in contextualizing the peculiarities of Marx's rent theory as well as its overall thrust. I will now provide a synopsis of Marx's rent theory before scrutinizing its assumptions.

In the first instance, Marx resorted to a 'differential rent' framework. Marx, here explains the source of ground-rent as surplus profits that arise in production and which are subsequently, creamed off by the landed gentry. As a result, the rate of profit across capitalist sectors is equalized through ground-rent coming into existence (Marx, 1991, p. 785). The source of surplus profits here lies between the individual price of production on the more productive land versus the higher general price of production which governs the market (Marx, 1991, p. 780; Mandel, 1991, pp. 56-61).

His investigation then naturally turns towards examining the conditions of production through which surplus profits come into existence. Here he breaks down differential rent into

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[15] Jayati Ghosh and Deepankar Basu in their work have both emphasized the incompatibility of Marx's concept of absolute rent with capitalist relations of production as well as its inconsistency with his theory of value (Ghosh, 1985, 76-80; Basu, 2020). For a defense of the consistency of the concept of absolute rent see Patnaik, 1983.
[16] Fabian Balardini has criticized agricultural rent theorists such as Ben Fine for essentializing the case where the most expensive methods of production govern the market price (see Balardini, 2017).

two discrete steps. First comes the natural advantage unique to a tract of land such as superior fertility or locational proximity. Both these factors, either together or separately may give a piece of land superior levels of productivity. This is what is called the 'extensive margin'. Marx's primary focus in the case of the first form was on fertility not location. Moreover, capital intensity across lands of different fertility is kept constant to bring out the effects of superior land quality. The sequence of cultivation may move from the land of best fertility to the least or vice versa. The end result is the same with the poorest lands governing the market price of production in the case of the first form of differential rent. Here farmers recoup the average rate of profit. The corn produced on more fertile lands has a lower individual price of production than which prevails in the market. This results in surplus profits for farmers which are subsequently extracted as ground-rent by landlords. All lands of superior quality than the worst then come to bear rent in the case of the first form of differential rent (Marx, 1991, p. 789-792).

Farmers on better quality land can further increase their mass of surplus profit through additional investments which increase output as long as the marginal product is still cheaper than the corn produced on the worst land. This is the second form of differential rent based on capital intensity and, unsurprisingly, referred to as the intensive margin. The differences in natural fertility then also create the opportunity for surplus profits to be garnered from the uneven application of capital to equal quantities of land. (Marx, 1991, pp. 814-817).[17]

The intensive margin can occur when the governing price of production is constant, rising or declining on the non-rent bearing land. These three cases form the principal focus of Marx's

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[17] Ball here has emphasized that exaction of ground-rent limits the equalization of the average price of production on lands of differing quality through capital investment. Because a ground-rent is due farmers will limit their investment to the point when the additional unit of capital equals the price of production on the worst soils which is the governing market price. This way they be able to pay for the ground-rent through their surplus profits. If the farmers, however, went on investing additional capital with declining productivity on better lands until its average price of production equaled that of the worst land, all their surplus profits from previous capital outlays would be cancelled out. The farmers would now be left with only the average rate of profit and be unable to pay a ground rent. The result is that capital investment on better lands is held back by farmers than would, otherwise, be the case if there was no ground-rent. As a result, more of the worst land is brought into cultivation. The second form of differential ground-rent ends up directly effecting the prices of production of the primary sector (Ball, 1977, pp. 391-392; Marx, 1991, pp. 867-871)

analysis of Differential Rent II. Within each of these three possibilities, the productivity of the additional units of capital applied to rent-bearing land may remain constant, increase or diminish. As Engel's notes, for the second form of differential rent this creates a total of nine possibilities with potential for further modalities (Marx, 1991, pp. 850-852).[18]

Once landlords realized farmers were using more capital-intensive methods to earn above average profits they would raise the level of ground-rent to skim of all the mass of surplus profit. Short-term leases ensured such rack rents could be charged. This would in turn force the farmer after the lease renewal to carry out the same sort of capital-intensive farming while only earning average returns (Marx, 1991, pp. 813 -814).

It is important to understand that Marx in the case of the intensive margin, speaks of fluid capital such as fertilizer, feed, etc., which is entirely used up in a single turnover. For him fixed capital which he calls La Terre capital yields interest and not a ground-rent. Its role, consequently, in the analysis of ground-rent is ignored (Bryan, 1990, p. 178). Nevertheless, Marx does acknowledge that any permanent improvements made by farmers were appropriated by the landlord at the expiration of the leasehold. These improvements were then lent back to them at the rate of interest when the new lease was signed. This appropriation of improvements became an essential component of the wealth of the landed gentry. And it, understandably, discouraged farmers from making such investments, consequently, retarding the development of agriculture (Marx, 1991, pp. 756-757).

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[18] There is a potential tenth case that Marx considers where the general case does not hold, and the worst lands do not govern the market price of production. He devoted chapter 44 in Volume III to probing this possibility. This is a special case of the second form of differential rent. First, demand rises above the market price of production governed by the worst lands. Second, there are diminishing returns to capital. Third, there is no more land of the poorest quality left to further cultivate. As a result, better quality land is more intensively cultivated. However, the productivity of the marginal unit of capital applied to better land now declines below that of capital previously applied to the worst land. The price of production of corn produced from the marginal unit of capital meets market price. As a result, the farmer only earns the average rate of profit from the marginal unit of capital. There is no ground-rent. In such a circumstance, corn produced from the marginal unit of capital applied to better lands comes to govern the market price of production. Because the market price of production is now higher than the individual price of production on the worst land, even those lands bear a differential rent. There is now a differential rent on all lands (Marx, 1991, pp. 872-881). Marx, criticized David Ricardo for considering this special case where even land of the poorest quality paid a differential rent as universal (Marx, 1991, p. 819).

This covers the differential rent framework which looked at how rent originated from the surplus profit of farmers. And he homed in on the source of this surplus profit as the difference between the lower individual price of production of corn on certain tracts of land and the higher market price of production which corn sold for. Both cases of differential rent are then consistent extrapolations of his value theory.

Marx was left uncomfortable with his own general case of differential rent where the worst lands did not yield a rent while also forming a substantial portion of all lands (Marx, 1991, p. 884). He tried, therefore, to account for rents on the worst lands with his concept of 'Absolute Rent'. He claimed that an additional source of ground-rent for the landed gentry laid in the difference between the price of production of all primary sector goods and their value. There are three steps to the argument for absolute rent that I will explain below.

The first step is the assumption that the entire primary sector has a lower organic composition of capital than that of industry. This means not just grain production but also grazing of pastures and mining have a lower organic composition of capital than in industrial production (Marx, 1991, pp. 902, 906-907). Consequently, the products of the primary sector hold a greater amount of surplus value than industrial commodities. If profit rates between industry and agriculture were then to equalize, industry would siphon off the surplus value produced in the primary sector (Marx, 1991, pp. 897-898). It then follows that the price of production of primary sector goods is below their value. And the price of production for industrial commodities is above their value.

The second step of the argument is that the landed gentry withdraws part of the worst lands from primary sector activities where the capitalists only make the average rate of profit. Such lands are not leased as they do not afford a ground-rent. This partly blocks the flow of capital into primary sector and stops the equalization of the rate of profit between it and industry. The values of primary commodities are not transformed into prices of production. Rather, primary

products now sell at market prices higher than their prices of production. As a result, they retain a greater content of their surplus value which earns farmers a surplus profit. This surplus profit is in turn extracted as ground-rent by the landlord (Marx, 1991, pp. 898-899). The source then of absolute ground-rent is the surplus value increment between the price of production and the value of primary goods.

But what stops the landed gentry from not withholding any more land after the price of primary products is already equal to their value? Why would landlords not withhold further land in order to drive the price of primary products above their value? This is the question, Jayati Ghosh asks in her article (Ghosh, 1985, p. 74). If such a situation did come to pass, then the landed gentry could also extract further value from industry and further augment its ground-rent. This would increase ground-rents while lowering the average rate of profit. The landed gentry would enrich itself to the detriment of industrial capital. The more the landed class could do this the more it would block the development of industry altogether.

The price of agricultural products would now determine the rent rather than the other way around. This violated an essential tenet of Marx's rent theory that he adopted from Ricardo (Ghosh, 1985, p. 72). The second step of the argument for absolute rent then also begins to threaten Marx's entire framework. He is also acutely aware of this (Marx, 1991, p. 898; Harvey, 2018, pp. 349). So, he introduces a third argument to mitigate the danger.

The third step is the postulate that landlords are unable to raise the price of primary commodities above their value by withdrawing even more land. This is because there is still intrasectoral competition even if intersectoral competition is blocked through the withdrawal of land. The overwhelming majority of primary commodities are competitively produced, fungible, and consequently, where labor-time does determine their value. They are not unique or unsubstitutable products such as the finest of wines which, fetches a monopoly price due to demand vastly outstripping supply, resulting in monopoly-rents for the vineyard. Marx provides two examples of how this intrasectoral competition occurs. First, through the extension of

production on the same quality of land as the worst one, in response to the price rise. Second, the rise in prices would lead to farther off locations coming into competition such as imported corn from the American prairie (Marx, 1991, pp. 899, 903-904, 910).[19]

To sum up, absolute rent would arise on the worst lands through the landed gentry withdrawing this quality of land from the primary sector. This would take the price higher than the price of production but no higher than its value. In turn, the landed gentry would confiscate the surplus profits in the primary sector which would result from this.

For the entire Marx's model of rent to work, he makes three assumptions. First, there is mobility of capital between agriculture and industry. This stops agrarian landlords from exacting a monopoly ground-rent that would eat into the farmer's average profits.[20] And if the landlord were to raise the ground-rent to such a point, the farmer would quit agriculture and move into industry. This assumption is identical to David Ricardo's (Marx, 2000c, 99-100). But what if landlords in industry also tried to raise a monopoly ground-rents and lower the average rate of profit there too? The farmer would now have to content himself with the lower rate of profit just like the industrialist. The rate of profit would decline across the board due to rising ground-rents in both industry and agriculture. Alternatively, what if industrial landlords withdrew urban land in order to create an absolute ground-rents by blocking capital from agriculture entering into industry? In this case as well, there would be no respite for capitalists in either sector. Rising ground-rents in industry and agriculture would drive profits below their, otherwise, average rate.

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[19] Marx also contemplates two other possibilities. First, the additional intensive cultivation of the better tracts of land. And second, the cultivation of even worse quality land if prices are above the values of primary commodities. But he acknowledges that in either case, this would be differential rent and not absolute rent (Marx, pp. 886-887, 902-903).

[20] Marx himself details how this is not the case given the lack of mobility of capital in practice and dearth of skills which could be applied to other sectors by farmers. He also speaks of the poverty of agricultural worker arising due to high rents where the capitalist shifts the burden of ground-rent onto them. In realty a portion of the ground-rent was not only a deduction from the average profits of the farmer and also the labor-power of the agricultural worker leaving it in a worse state than that of its urban counterpart. He considered this housing rent for workers on agricultural estates as a monopoly rent (Marx, 1991, pp. 762-770, 890). And he also thought of urban residential ground-rents as a monopoly rent deriving from class power of the gentry (Marx, 1991, p. 908).

This is where the second assumption comes in to save the day. In the case of industry, landlords do not seek to charge a monopoly ground-rent on average profits or withdraw their land to create an absolute rent. As a result, there are no obstacles to competition. Values are transformed into prices of production in industry. Free competition of capitals creates an average rate of profit. For inexplicable reasons, industrial landlords are different to agrarian landlords. They do not look to deduct a further monopoly-rent from industrialists making only the average profit. Nor do they withdraw land from industry to raise an absolute rent. And so, the farmer acquires an ideal benchmark in the industrial rate of profit to measure his own profits against. Therefore, he looks to collect the average profit despite rural landlords withholding land which blocks the flow of capital from averaging out the profit rate in agriculture. The farmer is still able to judge the highest ground-rent he can pay while still making the average profit thanks to the ideal competitive conditions obtaining in industry (Marx, 2000c, 99-100). And if the agrarian landlord insists for more than this amount, the farmer will leave agriculture for industry where free competition of capitals reigns, unhampered by a landed class. To reiterate, the farmer is only able to do this if we assume landlords of industry do not withdraw land or seek a ground-rent in conditions of average profitability. This second assumption is as pivotal as it is generous. Especially, given the spatially concentrated nature of industry which increases the monopoly power of landownership. However, this assumption seems to have gone unnoticed altogether.[21] Even after granting the second assumption another problem still remains.

Let us assume industrial landlords are unable to extract a monopoly-rent or absolute rent. What would happen still if agrarian landlords try to raise a monopoly-rent and drive the rate of profit in the primary sector below the average? The rate of profit in the primary sector would decline below that of industry. Capital would now flow into industry. As a result, in industry supply would rise, and prices would fall, thereby, lowering the rate of profit there. While in the

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[21] Given this second assumption it should not be surprising that Marx only considers the existence of ground-rent drawn from industry when it is conveniently a deduction from surplus profits. The prime example he gives in this regard is the rare case of waterfalls which lower the individual price of production of a factory below the general market price of production that is governed by steam-power. This difference leads to the accrual of surplus profits which are then siphoned off by the landed proprietor (Marx, 1991, pp. 779-787).

primary sector, supply would decline, and prices would rise. The rise in prices would partly compensate for the higher ground-rent. The smaller the industry in comparison to the primary sector the more quickly would its rate of profit decline to the level of the primary sector. This would stop the remaining capital in the primary sector from further fleeing towards industry and force it to continue paying a monopoly ground-rent. The larger then the primary sector proportionately to industry, the greater would be the ability of the agrarian landlords to squeeze out a monopoly-rent. This is where the third unstated assumption of Marx's rent model comes in: industry is large enough to absorb capital flows from the primary sector without a noticeable decline in its rate of profit. The large size of industry forms an impediment to agrarian landlords from surcharging a monopoly-rent and driving profits below the average in the primary sector.

Ricardo makes this unstated assumption as well. This third assumption is also quite generous given the time at which Marx was writing, but it is even more so in the case of David Ricardo because industry was still smaller then. The third assumption seems to be more applicable today in the case of advanced economies.

To sum up, if either of the second or third assumptions are not granted then a monopoly-rent does come into exist, even for primary commodities which are fungible, competitively produced within a sector and where labor-time does determine their value. Perhaps, the debate over whether landlords could charge a monopoly-rent for primary goods as first claimed by Adam Smith cannot be solved solely through economic models (Smith, 1999a, p. 247). The political economy of class structures and the class struggle waged against the gentry by an incipient bourgeoisie might be more important historical determinants here. I outlined these aspects in my presentation of the first lacuna of urban rent literature where I discussed the fall of the landed class in Britain and its nonexistence in the case of the U.S. I will now move onto the discussion of urban adaptations of Marx's rent categories. I show how in each case they are unable to account for the sources of land price, the process through which it is formed and the determination of its level.

Section - 2.3: Urban Applications of the first form of Differential Rent

In this section I critique the argument by analogy in first case of differential rent. The critique will have three parts. I will show how urban application of the extensive margin is unable to account for the sources, process and levels of rent. I begin with how it obscures the sources of contemporary land price.

The fertility of mines and fields which leads to above average productivity is by definition out of the question as this is peculiar to the primary sector. Moreover, the use of waterfalls by factories has long been a facet of the past. In any case, it was a rare instance. This leaves location as other aspect of the first form of differential rent for consideration.

Urban rent scholars have used this as a way to explain cities because urban land prices are dramatically impacted by their location. Land in city centers has lower transportation costs, therefore, capital locates there. This line of thinking resonates with Central Place Theory which predicts that areas with the lowest transportation costs in combination with the need for economies of scale lead industries to coalesce in a single area. These areas in turn become the main urban hubs. Afterwards, across a region smaller city centers or urban markets also spring up around this central hub (Harvey and Jowsey, 2004, p. 273-275). The logic seems analogous to the role played by location in agrarian rent for Marx. Tracts of land closer to cities or next to navigable rivers could have their grain trucked to market more cheaply. However, in the latter case what determined rent was the transport costs from a farm or mine to an urban center which formed the market where it would be sold. In the urban case land price is derived instead from proximity to other industrial centers and primary production which cheapens the individual price of production of the location below the market average. This is why capital agglomerates there. In turn, such well-located urban land accrues a differential rent of the extensive margin.

Murray uses the extensive margin to account for decreasing rent with distances in the city center (Murray, 1977, pp. 112, 119-120). Scott in his earlier work on land rent also holds up the

validity of the extensive margin in the urban context because of distance from city centers (Scott, 1980, pp. 31, 35-38).[22] Lamarche, provides the example of a shopping center located next to a road which increases the inflow of traffic towards it. Lamarche then extrapolates the example further to a hypothetical apartment complex constructed next to such shopping facilities will also boast of the first form of differential rent because of the superior location for its residents (Lamarche, 1976, pp. 100-101). A similar argument is advanced by Lipietz and Beitel. They too argue that locational features create not only a differential rent for urban production but even housing given an area's superior amenities, etc. The analogy stretches the concept of differential rent from the sphere of production to consumption. The commonality here is expressed through the term 'economic and social division of space' which allow for surplus profits due to locational attributes (Lipietz, 2018, pp. 148-149; Beitel, 2016, p. 35). The argument's essential schema for rents drawn from both production and consumption is summarized below.

Production: Naturally cheaper location ➔ Industry locates there ➔ DR I

Consumption: Superior residential location ➔ upper-income earners move in ➔ DR I

In both instances, naturally attributes of an urban area supposedly lead to surplus profits which are subsequently siphoned off as ground-rent. This schema has strong affinities with Alfred Weber's industrial location theory which used microeconomic assumptions to explain geographical concentration of enterprises (Massey, 1973, pp. 35-36). Therefore, the same problem arises as in the case of Weberian Location Theory. By naturalizing a location's characteristics, the theory fails to account for dynamism and movement (Storper and Walker, 1989, pp. 2-3). Capital physically agglomerates but also disperses and is incessantly changing locations. If there was only a singular natural location minimizing costs within a region or city, we would not see capital leave from there. If such a rock-ribbed reality was to be the case, there would be no room for history or economic change in urban areas or region. The urban analogy to the first form of differential rent falls into a geographical and environmental determinism.

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[22] To be clear, Allen Scott uses a Sraffian/Ricardian approach in the work.

For example, it is a gross simplification to say that New York City became the premier commercial hub instead of Boston because of innate natural features. Similarly, it is impossible to prove that New York's central business districts were predestined to become the money markets of the U.S. unlike the CBDs in New Jersey right across from the Hudson river due to natural features. The argument by analogy becomes an unhelpful distraction. There is little role left for an open-ended role for social and economic history. Like any other geographical determinist approach, it falls into ahisotricism.

There are also a wide variety of cost structures within urban industries leading to varying locational decisions (Howes and Markusen, 1993, pp. 1-35; Massey, 1987, p. 13). Therefore, a natural feature aiding in reducing costs for one industry might mean little for another. And such an approach then does not help answer why most metropoles are not only composed of singular industries but rather the coalescence of several industries working in tight knit proximity. A theory of urban land prices emphasizing natural features altogether ignores the crucial aspect of spatial concentration of multiple sectors in a singular location. Rather, it makes seem that firms and sectors cluster entirely irrespective of one another in a given location without regard to the region's economy. As if it was solely because of the extraneous natural attributes of a locale which offer cheaper costs. New urban microeconomists, on the other hand, have already realized that agglomeration not just within but also between sectors is a crucial facet of urban economies. They, therefore, have looked to theorize it as a positive externality resulting from knowledge spill-overs (Glaeser, et. al., 1992).

The reasoning by analogy does not work in the case of housing either as there is nothing 'natural', about an urban location for residences which raises land prices. Much of the twentieth century saw the rise of suburbs but since its last two decades there has been a departure back to the city by professionals and owners of businesses causing gentrification (Smith, 1987). The real question is then why demand is concentrating for superior housing stock in a location versus

another area. To say it is because of the location only answers the question by restating it as a premise.

What needs to be explained is not a location's innate qualities but rather the changing patterns of agglomeration there. It is the dynamics of agglomeration which lower the costs of production and circulation as well as the time attendant with both. The reasoning by analogy only serves to further obfuscates the sources of urban residential land prices by essentializing agglomeration patterns.

There is a large literature in the fields of agglomeration economics, regional economic history and economic geography which militates against essentializing urban economic and regional patterns. The product cycle, profit cycle and spatial structures of accumulation all try trace the internal logic of changing agglomeration patterns. Although, varying in their approaches they are unified by emphasizing the co-dependency of firms within and across sectors in terms of choosing a location (Massey, 1987, p. 85; Markusen, 1985; Walker and Storper, pp. 71-98, 1989; Feldman, 2000; Harvey, 2015, pp. 149-150). Furthermore, the role of government policies such as trade tariffs, desegregation, interstate highway system and regional investment have all played an essential role in defining urban agglomeration patterns (Eckes, 1995, pp. 216-218; Lewis, 2013, pp. 279-292; Sugrue, 2014, pp. 140-141; McDonald, 2015, pp. 105-133, 180-184, 212-213, 247; Schulman, 1991). Similarly, taxes and wages on industrial capital because of high union densities have historically tended to act as push factors for capital leading it to disperse towards cheaper areas (Sugrue, 2014, pp. 125-130, 138-139).

The new economic geography of Krugman also gives off an air of open-endedness through endogenizing the location decisions of firms. And other neoclassical economists emphasize the positive spillover effects in a locality as an explanation of the increasing returns through proximity of firms within the same industry (Storper, 2011, p. 334; Hanson, 2000, pp. 479-481). I will schematize below the essential logic emanating from a wide variety of studies referred to above. here as opposed to the one arising from the urban application of the extensive margin.

Capital Agglomerates ➔ Cheapened costs and increased labor skills ➔ Higher profits

To be clear, I do not mean to assert that there can never be a role for naturally advantageous location. Econometric studies on U.S. manufacturing have concluded that only about 20 to 25 percent of agglomeration patterns can be attributed to natural advantages (Ellison and Glaeser, pp. 315-316, 1999; Ellison, Glaeser and Kerr, p. 1206). This is, however, a small portion of a shrinking industry and it leaves much to be explained. Moreover, if there are multiple areas of equal natural advantage where manufacturing could have migrated to, then the explanation becomes even more insufficient. For example, let us take the case of ship-building as it makes for a favorable case for natural advantages cheapening production costs. It is likely it will be located on the coastline. However, barring the exceptional case that there is only a singular natural deep-water harbor available, it remains undeterminable as to where it will agglomerate. Once again, the answer would lie with studying concrete patterns of capital agglomeration across regions. In the case of newer industries, naturally cheaper costs as an explanation is lacking altogether. It is unable to explain changes in the location patterns of the IT industry which has been a strong force of economic divergence within regions (see Storper, et. al., 2015). Scholars in economic geography have rather emphasized 'the window of locational opportunity' early on where industries can locate to multiple areas. It is only afterwards that there comes to be a self-reinforcing logic of agglomeration which brings in more concentration. However, early on the process is open-ended when an industry is in its infancy or parts of it are looking to relocate. Agglomeration then as a positive feedback loop only develops over time. This is a distinct process internal to sectors and cannot be attributed to external environment where they happen to locate in a predetermined manner (Storper and Walker, 1989, pp. 71-75,83-98).

Perhaps, the most telling contemporary example of this is Microsoft. It was started up in the 1970s in Albuquerque by graduates from New Mexico University with the founder of course being Bill Gates. However, Bill Gates pushed his new company and employees into moving to Seattle. There was no economic reason for this and he faced resistance. It was simply because

his family was in Seattle. Over time, as Microsoft grew it attracted a growth of other IT firms which turned it into a tech hub. Microsoft, coincidentally, saved Seattle from a similar fate as Albuquerque after deindustrialization. Today Seattle is one of the most prosperous cities in the country and also one of the costliest to live in. Albuquerque, on the other hand, boasts some of the highest poverty and crime statistics across the country (Moreti, 2013, pp. 74-81).

I will now move onto a brief discussion of how applications of the first form of differential rent distort process of land price formation and are, thereby unable to explain land price levels. I have already explained that the first analytical gap emerges from the lack of a landed class in the United States. The form of and tenure is almost without exception freehold. This means capital is not barred from investment and owners of the land also occupy the site as active functioning capitalists. Therefore, if surplus profits do arise at a location they are retained by the owner of the site who is the active operator of the establishment. There is no landlord here who extracts the surplus profits because he lends the land to the capitalist and, thereby, turns the units of surplus profits into ground-rent. The first form of differential rent is based on this peculiar characteristic of a rack rent leasehold system of land tenure. The application by analogy by superimposing it onto freehold becomes, therefore, essentialist in character. Given surplus profits are not transformed into ground-rent, the theory also errs in stating that the price of land is derived from capitalizing this ground-rent. As a consequence, the analogy is of no aid at all in clarifying the levels of land price when freehold is the form of capitalist tenure.

In sum, urban applications of the extensive margin of rent are unable to account for the sources, process and levels of land price. I will now move on to show the problems which arise because of the transposition of the second form of differential rent in a freehold urban setting.

Section - 2.4: Urban Applications of The Second Form of Differential Rent

Because urban rent theorists ignore the role of changing patterns of agglomerations they have to subsequently account for clustering as a result of favorable natural locations. Nevertheless, urban density is much higher in city centers where there are higher land prices. This is also where buildings of superior quality and latest designs are erected. Urban rent theorists have looked to explain this through invoking the second form of differential rent – the intensive margin. Urban density in built up areas is explained through drawing an analogue to higher capital intensity in agriculture. It is then claimed that built up areas accrue surplus profits which are subsequently extracted as ground-rent by landlords.

There are a number of variants on this theme with each trying to pinpoint the source of land prices. However, they all share the commonality of trying to explain ground-rent as a result of the intensity of capital outlays. The intensive margin analogies are, otherwise, identical in terms of how they account for the process of land price formation and its levels. The same is assumed as before except with the source of surplus profits now laying in capital intensity. Capital intensive investment generates surplus profits which are then siphoned off as annual ground-rent. The ground-rent capitalizes at the rate of interest to yield a higher land price.

First, I will begin by show how various scholars fail to account for the sources of urban land price by invoking analogies to the intensive margin. Afterwards, I will illustrate how the analogy also is unable to explain the process of land prices formation and the determination of their levels.

Lipietz and Beitel argue that the second form of differential rent takes the form of superior quality of housing and buildings due to more higher capital outlays. Through this process 'promoters' or developers are able to impact the site and modify its locational characteristics in order to draw a higher rent. As this rent is extracted from the site's internal qualities and not its extraneous location, Lipietz refers to it as 'endogenous tribute'. The example both authors give

is that of superior quality housing stock. This is a clear urban analogue to the intensive margin (Beitel, 2016, pp. 35; Lipietz, 2018, pp. 149-150). First off, all investments physically fixed into space modify the local surrounding, even if they are below par in comparison to the prevailing norm. Therefore, the real source here for both the authors lies with the above average capital intensity. Nevertheless, the real question which begs itself is that why would that lead to anything more than just a higher building rent? All physically produced buildings represent a sum of money capital when they are lent in kind. Whether they are leased out to productive enterprises or for consumption is a different matter. Nevertheless, in both case there is only a building rent. In contemporary CRE, additional capital outlays are common and referred to as capex (capital expenditures) to upgrade a building's quality. However, there is no evidence that it will definitely lead to a higher land price besides the higher value of the buildings. By invoking the analogy to the intensive margin, both Beitel and Lipietz end up conflating building rent drawn from produced improvements with ground-rent.

Capital intensity only works as an explanation for higher ground-rent in agriculture due to two assumptions First, previously existing fertility differentials between soils. Second, if we assume the worst soil governs the market price. Only then it follows that farmers on better tracts of land may be able to earn farmers a surplus profit on better tract through intensive use of fluid capital. Drawing an analogy to the intensive margin without keeping in mind the specificity of such assumption leads to erroneous conclusions.

In another play on the theme, Lamarche argues that higher capital outlays create urban density and bring about clustering in an area which leads to surplus profits (Lamarche, 1976, pp. 101-102). To his credit, Lamarche realizes the role proximity plays in lowering costs for capital and creating surplus profitability. Nevertheless, this is still a case of putting the cart before the horse. The development of high rises together with urban density occurs in neighborhoods where there is already demand present because of clustering of enterprises and population. These areas are usually the central business districts and commercial districts, or residential neighborhoods located in commuting proximity to them. They combine to form the core of

metropolitan areas. Agglomeration economies cannot be just generated out of scratch by erecting high rises on the outskirts of town or worse yet, in the middle of nowhere. Only where there is already demand can constructing a high rise which increases urban density and aids in proximity be profitable for developers. Moreover, there can be room within an urban area for more dense development without necessarily the demand for it due to a lack of profitability. The premier urban example of this is Detroit with mostly empty high rises still lining the city's sky. In sum, urban density through high rises is an effect of agglomeration which also acts as a positive feedback loop. High rises built through higher capital outlays on their own cannot generate the clustering advantages a city possesses. In Lamarche's case, a strict adherence to Marx's schema turns the otherwise fruitful insight of the role of clustering on its head. He is led to believe that such proximity is result of preplanned capital-intensive outlays from the developer (Lamarche, 1976, p. 102). Worse yet, this line of reasoning smacks of an assumed supply-demand identity in the case of urban high-rises. Once again, the intensive margin analogy causes more trouble than it resolves.

Perhaps the most inventive analogy to be found to the intensive margin is in the 'second-circuit of capital' spatial fix approach of David Harvey. Harvey bases this remarkable approach on two theoretical propositions. The first is that individual capitalists tend to underinvest in the built environment. Second, capitalism consistently produces a surplus of money capital which cannot find further profitable investment in current conditions of production. As a result, this surplus capital is channeled into the second circuit of the built environment. In this second circuit new forms of immobile fixed capital are made which revolutionize production. This new capital-intensive development temporarily 'fixes' the surplus capital problem by physically affixing the latest buildings and technologies into space. In the process, older fixed buildings and technologies become devalued. Moreover, newer immobile forms of fixed capital also risk massive devaluation through speculative overinvestment. The spatial fix may then generate speculative land booms through the flow of capital into new built environments with the latest technology. The historical evidence Harvey martials for as evidence are the contested Juglar and Krondratiev

waves of economic expansion and slumps (Harvey, 1978; Harvey, 2015, pp. 239-242; Harvey, 2018, pp. 235-238, 428-429; Edel, 2013, pp. 78-80).

There is much controversy about Harvey's spatial fix hypothesis (King, 1989; Das, 2017). I will here restrict myself to commenting on the implicit analogy with the intensive margin of agricultural ground-rent. In the urban process as outlined by Harvey's spatial fix process there is no objective determination of land price. Rather, it seems that urban land prices cyclically go up and down based on investor sentiment. It is the speculative flow of money capital which comes to determine the value of urban land as an asset. The titles to land are forms of fictitious capital whose value is derived from capitalizing future streams of ground-rent (Harvey, 2018, p. 367). However, the final source of urban land prices then lies with the quantity of money pouring into land because of gluts in profitable investment elsewhere. Within the spatial fix hypothesis, I am unable to see any objective connection between rising capital intensity and land price. This theory of land price rather seems to be subjectivist in nature and based on the quantity theory of money. The analogy to Marx's intensive margin itself breaks down here.

I will now move onto the process of land price formation and the determination of its levels. All authors who make the analogy to the intensive margin either explicitly or implicitly assume a rack-rent leasehold system of land tenure. The same ahistorical assumption is made here as in the urban applications of the extensive margin. It is claimed that a landed class blocks the flow of capital into land and which then demands a ground-rent on surplus profits.

The result is that the analogy to the agricultural intensive margin is unable to account for the process through which land price comes into existence. To reiterate, there is no landed class confiscating surplus profits when freehold is the form of tenure. The analogy to the second form of differential rent becomes a cause for confusion here. For example, Murray states that dense urban environments are as a result of capital intensity being used to replace land in order to flee ground rents (Murray, 1978, pp. 25-26). This is strange reasoning as everyone knows more densely built up areas have more higher land prices than low density ones. Given its inability to

account for the process of land price formation the analogy to the intensive margin is also unable to account for urban land prices level in freehold.

In the case of Harvey's spatial fix hypothesis, the flow of capital into land is assumed to be divorced from the operation of enterprise. Thereby, conveniently, all claims to land become interest-bearing paper which yield ground-rent as fictitious capital (Harvey, 2013, pp. 233-236). However, in reality the opposite holds as most commercial real estate combines ownership with occupation of enterprise. There is a union of landownership with capital which is employed to garner a profit. As a result, the direct investment of working capital by enterprises to make a profit is what determines land price. The spatial fix hypothesis of Harvey assumes the exact opposite – that there is a divorce between functioning capital and landownership. This makes it unable to account for the formation and levels of land price in freehold. For why would a functioning capitalist pay such a high land price that he would be able to only recuperate his surplus profits at the rate of interest? In such a case, the actively working capitalist would be making a below average rate of profit.

Section 2.5 - Urban Applications of Absolute Rent

There are a number of theorists who have used Marx's category of Absolute Rent to explain rising urban rents. This is in itself perplexing because Marx did not apply this category to urban landlords in the case of industry. As I explained above, this would have meant an impediment to the free flow of capital within industry and the equalization of the rate of profit. Industrial commodities would sell then at their values instead of market prices of production. Profit rates amongst industrial sectors would be rendered incommensurable because of the immobility of capital. And given this immobility of capital, landlords would now be in a position to charge a monopoly rent which would retard accumulation in industry. Effectively, the capitalist economy would cease to exist.

Unthwarted by such considerations the concept of absolute-rent has too been inventively applied to the urban context by a large number of scholars. There are two different approaches here which in the case of individual authors may overlap. The first one emphasizes the source of absolute rent in the supposed low organic composition of capital. The second approach revolves around Harvey's Class Monopoly Rent thesis which combines elements Marx's theory of absolute and monopoly rents. Here the source of rent lies squarely with the power of a landed class to halt capital investment into urban areas and, thereby, extract a monopoly rent. I will first show how both analogies, although, fail to explain the sources of urban rents. Then I will move onto show how these theories distort the formational process of land price in freehold. As a result, they are unable to account for land price levels either.

Lipietz most clearly put forward the argument of a low organic composition of capital in construction which yields an absolute rent (Lipietz, 2018, pp. 145). Edel and Lauria also seem to entertain this as a possibility in the case of construction of buildings and even housing as an activity of individual consumption (Edel, 2013, pp. 73-74; Lauria, 1984, p. 19). Even if it is granted that construction as sector of industry has a lower organic composition of capital it not enough for absolute rent to arise. There needs to be a landed class to withdraw land either way. Not all

sectors with low organic composition of capital automatically yield a ground-rent. This was a point emphasized by Marx himself:

'The simple fact, however, of a surplus in the value of agricultural products over and above their price of production would in no way be sufficient in itself to explain the existence of a ground-rent independent of differences in fertility…or investments of capital" (Marx, 1991, 894).

Lipietz, in turn does not provide any rigorous evidence of the withdrawal of land from construction in his discussion. Edel and Lauria's application by analogy to the domain of housing as individual consumptive activity is even more bewildering. By stretching the analogy of absolute rent so far, they traverse new terrain of a low organic composition of consumption which yields extra surplus value. The analogy here ceases to make any sense.[23] In sum, even if it is accepted that there is a low organic composition of capital in construction this is not a sufficient condition for absolute rent.

The second line of reasoning then postulates that there is a landed class which withholds urban land in order to extract an absolute rent. The most famous work here is Harvey's study of Baltimore where he asserted the class monopoly-rent thesis. In his 1974 study of the Baltimore residential rental market, Harvey discovered the segmented nature of real estate. He asserts that the landed class conspires to concoct 'absolute spaces', thereby, forming a patchwork of distinct islands where specific demographic groups have to reside. As a result, they have to pay an absolute rent to the landed class. The landed class as a concept is asserted apriori and developers or realtors are also made a constituent part of it (Harvey, 1974, pp. 239-249, 254). A direct quote is of instruction here:

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[23] If the phrase 'the rising organic composition of capital' is made in relation to the sphere of circulation one can concede that technologies may not increase labor productivity in the actual sense but do curtail circulation time and costs through replacing labor occupied in such activities. However, even here if the phrase is taken literally it makes no sense. Once the analogy is stretched into the domain of consumption there is no room for such a charitable interpretation.

'Absolute spaces can be constructed by dividing space into parcels…All of these forms of absolute spaces create the possibility to realize class-monopoly rents' (Harvey, 1974, p. 249)

In other words, the gentry in Baltimore uses its monopoly power over land to price discriminate by artificially segmenting the housing market and, thereby, generating scarcity. This allows it to surcharge a monopoly-rent. Harvey uses the same reasoning to explain racial segregation of neighborhoods through absolute rent (Harvey, 1974, p. 246). Urban racial segregation is then part of a larger story of market segmentation carried out by a landed class. The evidence mustered for this claim are the institutional policies of the Federal Housing Administration, local governments, credit unions, individual landlords and developers (Harvey, 1974, pp. 243-249). Harvey also claims that the case of Baltimore can be generalized to all urban areas given there is segmented housing everywhere (Harvey, 1974, p. 250). It then follows that housing in and of itself would be a homogenous good without any segmentation if it were not for a landed class.

In effect, Harvey uses the well-known fact of the segmented nature of the residential properties to prop up the theory of absolute rent (Bandyopadhyay, 1982, pp. 176-185; Islam and Asami, 2009). Of course, commercial real estate is even more segmented given the plethora of activities firms engage in. The segmentation of real property markets is a necessary characteristic which derives from the variety of land-uses and demographics of its residents. It cannot be simply conceived as a concoction of a landed class. Let me take housing for example. Why would residences in Baltimore be identical for the retired, college students, young singles, nuclear families, undocumented immigrants, low-paid service workers, blue collar tradesmen, affluent professionals and business owners?

The segmented nature of residences can be a source of monopolistic pricing, but this is not orchestrated by a landed class. Property developers routinely look to differentiate units in new projects coming onto the market according to size and quality. They also use advertising to develop a brand image in order to segment the market, so their properties can command a higher price. This does result in price discrimination within a given market segment (Ball, Lizieri and

MacGregor, 2001, p. 61). Segmentation can also be furthered through policies of racial segregation by realtors and governments, neither of which have a monopoly over land supply.

But this is not a sufficient explanation for all the segmentation witnessed in housing markets. Such reasoning is also a nonstarter in the case of various property types for commercial-use. The reason for segmentation rather lies with the immense variety of uses land is put to because it is the universal condition of all human activity. The source is not a class with monopoly over land. Harvey is forced to explain everything through the prism of a landed class because he essentializes nineteenth century British agrarian land tenure. He then casts it onto freehold tenure conditions of 1970s Baltimore. As a result, the simpler argument of supply-demand imbalance as a source of rising housing rents is ignored in favor of an unproveable one. A landed gentry is imagined as the source of monopoly-rents which preplans the entire array of housing market segmentation.

There are a host of other scholars who too explicitly claim that absolute rent may arise in the urban context through a landed class withdrawing land. And neither do they restrict this absolute rent to the context of individual consumption such as housing (Lamarche, 1974, pp. 108-109; Walker, 1974, pp. 53-55; King, 1989, pp. 449-451; Edel, 2013, pp. 60-61, 70-75; Park, 2014, pp. 106-107; Ramirez, 2009, p. 89). The approaches here are identical to David Harvey's. Any discouragement to investment in urban areas is used as evidence of a landed class creating absolute rent by artificially generating scarcity.

The most systematic list here has been drawn by Edel. He lists seven potential circumstances where absolute rent may arise. The first, is the ownership of large urban estates and a refusal to sell or rental leases shorter than the life of buildings. Second, control over peripheral land of cities by transportation companies and their refusal to develop transport links. Third, fragmentation of urban land when larger plots are required for production. Fourth, speculative holding of land without construction being carried out. Fifth, concentration of landownership amongst few or a single capitalist such as company towns. Sixth, zoning and land-

use regulation. Seventh, high interest rates or financial monopolies limiting housing construction (Edel, 2013, pp. 60-61). Let me scrutinize each of these seven reasons for the urban analogue to absolute rent.

First, let us grant there are large urban estates which refuse to sell land which jacks up rents. How do those estate owners then garner a rent? Assuming freehold, why could not firms simply move to another part of the city just as they do in the case of public parks? As far as leases go, for commercial properties they usually span five to twelve years and most residential leases renew annually. Both types of leases are well short off the average building lifespan. I fail to see how this causes higher rents. Second, if transportation companies do not want to build in peripheral areas this might be due to low population density where they cannot recuperate the average rate of profit. No way is this prima facie evidence of land withdrawal. Also, there are cars and roads. That is the way most commute in the U.S.

Third, yes if land assembly is not possible because of landowners holding out, investment which may yield a higher ground-rent will be stalled. But why would this lead to a higher rent for current land uses? It does not. Actually, the possibility of higher ground-rent is stifled due to obstacles to land assembly. Fourth, speculative landholdings do occur when the average rate of profit cannot be recuperated. However, land has already been bought by the realtor and so it is no more a 'barrier to investment' of capital. Now the longer the capital advanced to buy land is tied up the higher the profit margin will have to be as compensation. Otherwise, the realtor will make below average profits. There is then no reason to believe that any surplus profits arise by necessity through delaying development. If anything, the realtor risks another competitor purchasing land in the vicinity and constructing the same type of property there. Speculative landholdings for future development should not be equated to withholding of land from development.

Fifth, yes in a company town setting there will be monopoly rents on workers, but this can be also the case where the demand for residences outstrips their supply. In either case, it is

the capitalist class in a freehold setting exacting monopoly rents from laborers. The capitalist class in the area chooses not to invest in more housing for its workforce. There is not another class inhibiting this investment.

Sixth, policies such as zoning and environmental laws do restrict the flow of capital. Affluent professionals in suburbia and workers elsewhere can pose successful legal impediments to capital investment. For better or worse, these are legal tussles between competing interest groups over land-use. The barriers to investment here are de jure, precisely, because no one has a monopoly over land. Furthermore, different segments of the capitalist class may find themselves on opposing sides in such debates. Seventh, high interest rates discourage investment generally. This phenomenon is not peculiar to land.

Each of the seven cases fails to make the analogy to a rentier class of landowners through prohibiting the flow of capital. Rather, these barriers arise in urban process itself and need to be understood on their own merits.

In sum, the urban application absolute rent has taken two lines. The first taken by Lipietz postulated a low organic composition of capital. This was shown to not be sufficient on its own to bring into existence absolute rent. The second line taken by Harvey, Edel and others focuses on the supposed class power of rentiers which manifests itself exacts an absolute rent through generating artificial scarcity of urban land. The final result is that any and all potential discouragements to property development come to be considered a conspiracy of a landed class which is never directly observable. Because of its ahistorical transposition of the concept of a landed class, the analogue is unable account for the sources of urban land price. Instead, it creates a distorted image of contemporary tenurial and class relations.

In terms of the process of land price formation the method of reasoning by analogy also succumbs to essentialism. There is no landed class which forces capitalists to pay a ground-rent. Owner-occupiers get to retain any surplus profits they make. Therefore, even if we grant that artificial scarcity creates monopoly rents and surplus profits for owners, these are all retained

within the capitalist class. The urban analogue to absolute rent does not explain how ground-rents or land prices come into existence in freehold. This analogue, thereby, fails to shed light on the contemporary process of land price formation. As a result, it is incapable of telling us how land price levels are determined either.

Section 2.6: Towards an Urban Rent Theory Without a Landed Class

The prior three sections of this chapter have shown that explanations of urban land price in freehold tenure by analogy to agrarian rack rent leaseholds fails on three accounts. First, it distorts the sources of urban land price. Second, it, obfuscates the process of as to how land prices are formed when owner occupation is dominant. Consequentially, it is unable to account for the differing levels of land price in an urban freehold setting. These three missteps arise out of the first analytical lacuna of urban rent theory which is its unwillingness to accept the nonexistence of a landed class in the United States. This is the reason for the imposition of extinct British nineteenth century land tenure conditions of short-term rack-rent leaseholds onto contemporary freehold.

Unfortunately, recent literature seems to have taken an even more dogmatic turn when it comes to ahistorical application of the concept of the landed rentier. Sandemose treats owner-occupiers as simultaneously part landlord and part capitalist (Sandemose, 2018, p. 61). Manning chastises recent scholarship for not strongly enough emphasizing the existence of a landed class in contemporary American real estate (Manning, 2020, p. 15). And Christophers ends up stretching the concept so far, he concludes that every homeowner in the U.K. is a rentier (Christophers, 2020, p. 332). This would make the majority of British households landed rentiers.

This line of reasoning is all the more strange given that Marx explicitly took the opposite approach. He argued that the union of functioning capital with landownership would mean the abolition of landed property and that this was exactly the case which had transpired in America and other colonies where a landed class absent (Marx, 1990, pp. 931-940; Marx, 1991, pp. 810, 885-886; Marx, 2000b, pp. 330-334). Acknowledging the essentialization of the landed gentry as a pitfall is the first step towards reconstructing land rent theory for an urban freehold setting. The next part of the dissertation begins to reconstruct a theory of urban rent by putting forward the central idea that a peculiar type of commercial capital specializes in the intermediation of

CRE. I call it realtor's capital. The next chapter analyzes various forms of physically immobile forms of capital on top which the realtor's capital arises as an intermediary.

Part II – Realtor's Profits

Chapter 3: Two Components of Commercial Property - Buildings & Land

3.1 Introduction

In part two, I cover the economics of realtor's capital as an intermediary of commercial real estate. Therefore, I begin with an analysis of the immovable forms of capital which constitute the produced commodity in which the realtor specializes. Marxian political economy has tended to treat all immovable forms of capital as synonymous to fixed capital. This seemingly assumes that all built structures are used for production (Harvey, 2018, pp. 224, 226-229, 236-237; Harvey, 2013, p. 131-132; Bryan, 1990, pp. 178-179). This forms the second analytical gap of urban rent theory which requires bridging.

As noted in my discussion of this lacuna, not all fixed improvements that generate income are productive capital. Commercial buildings and infrastructure can be utilized for activities of circulation and consumption. It then needs to be clarified why Marx referred to all buildings as immobile fixed capital. Buildings only have the physical characteristic of being fixed in place. Fixed capital, on the other hand, is a specific category of productive capital which does not transfer its entire value in a single turnover. It does not need to be replaced from scratch every time from the revenue earned through sale. It is the opposite of fluid capital composed of ancillaries, labor power and all material instruments which depreciate and entirely give off their value within a turnover. These need to be constantly rebought from the revenue earned from sale for the next turnover. Physical immovability is then not the defining characteristic of fixed capital (Marx, 1992, pp. 288-289).

Marx, nevertheless, did have a reason to use fixed capital as a shorthand for all fixed improvements. Circulating capital also turns over just like productive capital (Marx, 1991, pp. 417-420). And Marx considered one year to be the typical time period for a single turnover (Marx, 1992, p. 236). Therefore, not all capital outlays in circulation would be entirely consumed in a single turnover. Like fixed capital, commercial offices take several years to depreciate and

entirely use-up their value. Conversely, labor power and materials employed in the commercial office may be used up several times over within a year just like fluid capital (Marx, 1991, pp. 410-415). The long turnover time of fixed improvements was the reason, why Marx referred to them as fixed capital.

For clarity, I use the term buildings to denote all fixed improvements which generate income. This encapsulates all immoveable forms of capital. They may be used for production, circulation or individual consumption once purchased. Five points of clarification follow from the concept. First, immobile forms of fixed capital comprise only a subset of buildings. Second, all commercial land prices then derive from specific uses as determined by buildings. Third, commercial land price may be derived from unproductive uses. Fourth, buildings plus the land which is unproduced together comprise commercial real estate. Fifth, any merchant specializing in buildings also by definition becomes an intermediary of land. These five points serve as building blocks for the theory of realtor's profits and urban rent in freehold which is put forward in the rest of part two.

This chapter is comprised of two subsequent sections. In section 3.2, I expound the category of buildings. In Section 3.3, I analyze the relation between buildings and land. Section 3.3 offers a brief conclusion as to how this chapter lays the foundation for the rest of discussion of realtor's profits in part two.

Section 3.2 - The Scope of Commercial Buildings

In this section, I make four points. First, I clarify the specific meaning in which I use the term buildings as immobile capital. Second, I clarify the relationship between buildings or immobile capital and immobile fixed capital. Third, I correct the misconception that physically rooted forms of capital which last for longer than a single annual turnover only accrue interest. Fourth, I discuss the peculiar demand traits of buildings.

I begin here with the first point. I use the term buildings as a shorthand for all immoveable capital used for accumulation by the owner. By the term building then I mean specifically constructions which are put to commercial use. I ignore residential as well as public structures and infrastructure. The word building here takes on a particular meaning in contrast to the more general meaning of the term as commonly used.

Buildings may be used for production, circulation or consumption. A building can be utilized by its owner-occupier as a functioning capitalist to make the average rate of profit. This functioning capitalist could be a productive capitalist such as a mill owner or specialize in circulatory activities like an accounting firm. Both need buildings. Alternatively, buildings can also be sold for individual consumption. A newly constructed house being sold for a profit constitutes buildings. However, once a residence is sold for individual consumption by the owner-occupier it falls out of circulation and ceases to be capital. It is no longer a commercial building.

Buildings are capital because they are produced and are distinct from land which is unproduced. Just like any other product of purposeful labor, buildings are sold at their price of production which is composed of their cost-price plus average profit (Marx, 1991, pp. 254-257). Assuming equal quality of space, this price of production is evenly divided over the square footage of a buildings. If there are common areas (i.e. hallways, lobby, etc.) then these are paid for as a proportion of the total private space purchased in a building. If ten offices in a building can be made equal use out of then it makes sense that each buyer pays one-tenth for the

privately-owned space and one-tenth for the common space. Therefore, in this case each buyer would pay a tenth of the price of production for the whole buildings. Nevertheless, buildings are not the only component in the price of a commercial property. Immovability of buildings also accords land a distinct value in the commercial property. And unlike buildings, land is unproduced.

A building may also be lent in kind by their owner at the rate of interest. Here its price of production acts as the loan principal to which interest accrues. Additionally, the owner is remunerated for the physical depreciation of his commodity. The interest and depreciation combine to form building rent (Ricardo, 1996, pp. 140-141; Smith, 1999b, pp. 432-433). Assuming equal quality of space, the interest and depreciation will be evenly spread out across the square unit area of the property. If there are common areas, then these are paid by occupying tenants in proportion to the private space they occupy of the building.

Examples of this are multifamily apartment and single-family rentals, offices, warehouses and industrial plants. Tenants of buildings can be households, firms and non-profits. Building rent, however, is not the only type of rent commodities afford. Rent can also be drawn from loaned commodities which are mobile. In 2021, the equipment and machinery rental market in the United States was estimated to equal $48.9 billion in annual transaction volume (Mazareanu, 2021). This line of business is mainly comprised of commercial capitalists who specialize in the lending of moveable commodity capital such as earth-moving equipment, cranes and trucks.[24] Marx provides the example of in-kind lending of movable goods such as boats and machines which like a house also pay rent (Marx, 1991, pp. 465). He generalizes the case of rent drawn from commodity capital, stating:

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[24] Like real estate, this line of rental business has its own association, the American Rental Association and specialized commercial literature such as Rental Equipment Register. The magazine can be accessed here: https://www.rermag.com/

'all loan capital…is always simply a special form of money capital…the lender receives both a periodic interest and…an equivalent for the depreciation over this period' (Marx, 1991, pp. 465)

Buildings cannot be transported. The capacity of buildings to function is destroyed if uprooted. A wall or an erection cannot be moved without being demolished. Commodities such as a machine that are fastened into place which can be simply unfastened and moved to another location do not count as buildings. This is because transportation does not destroy their functional capacity. This is what makes them moveable. Commodities which are inputs to buildings such as paint, screws, nuts and bolts, bricks, steel beams, wires, floorboards, marble, etc. also do not then come under the classification of buildings. This is because they are portable. Such goods to be utilized do need to be fixed in place. However, they are not destroyed by transport as they do not require uprooting. These products only become a constituent part of buildings once assembled as part of a larger commodity that is fixed in place and which will be destroyed if uprooted. So, cement on its own is not immobile capital. But once it is poured in as foundation it becomes a constituent part of buildings.

Similar considerations apply to the primary sector. Seeds require to be fixed in place to be utilized. Nevertheless, they can be transported. As such, they are not covered under the term buildings as I use here to denote immobile capital. Seeds only become immovable capital once sewn into the soil. With trees the classification in terms of mobility is dependent on their use. A tree which is still planted and raised to bear fruits in an orchard is immobile capital as its use-value will be destroyed if uprooted. As such it is covered under the term building. On the other hand, a tree grown to provide wood is not immobile capital as Its functional capacity to provide wood is not lost when it is cutdown and trucked to market. The same applies to harvested products such as vegetables, fruits, grains and honey. They are not covered under the term of building. Contrarily, reinforced walls of a mineshaft operated for profit always comprise immobile capital.

There are two main types of buildings - structures and infrastructure. Structures are all improvements to land used for production, circulation and consumption which are disconnected

from one another. By structure I mean any sort of urban establishment as well as permanent improvements in farms, mines and forests. Infrastructure connects urban establishments with water, energy, transportation, communication and waste removal linkages. Examples are communication towers, sewage systems, roads, canals, railways, airports and shipping ports. Infrastructure, thereby, also connects structures with one another as well.

To be immovable capital, structures and infrastructure need to be used to accumulate capital by their owner. A public road is not covered under the term building. But if that road is sold to a private investor and held to make a return through tolls it becomes immobile capital. Whether it is now used for the for individual consumption by households in addition to production is not of relevance. What matters are the property relations of ownership and exchange. If one speaks of a private hospital run for profit in the U.S., then it is immobile capital. Conversely, if it is a government hospital not run for profit then it is not. If railways are run by companies to earn a profit, their tracks and tunnels become immobile capital. However, if they are run by the state they do not operate as capital.

To summarize, any construction only becomes capital if it is used for accumulation by their owners. No permanent improvement is inherently capital. But it does hold the potential to become it. This also means structures used for petty commodity trade whose circuit is not M-C-M' but rather C-M-C do not constitute capital. This is because the owners here use their establishments to subsistence through trade rather than accumulating capital. Only a small fraction of properties which are legally classified as commercial or income-producing engage in such petty commodity trade. Commonplace examples are 'mom and pop' stores or family-run diners and motels.

My second point is that the buildings should be differentiated from immobile fixed capital which is particular to production. As a result, crass physicalism where social relations are conceived of as natural characteristics of things is avoided.

Marx subjected this sort of reasoning on the part of classical political economists to a critique. He showed that Adam Smith and David Ricardo had fallen into exactly such a crass empiricism. Both Ricardo and Smith had attempted to differentiate between fixed and fluid capital (Ricardo, 1996, pp. 30-31, 45-46; Smith, 1999a, pp. 373-381). However, Smith consistently conflated fluid capital with commodity capital. At other points, he confused the movability or immovability of a commodity with its position as fluid or fixed capital in production. In like fashion, Ricardo erroneously reckoned that the physical durability of something determined if it was fixed or fluid capital (Marx, pp. 278-285, 298-305).

Marx's approach focused on relational categories within production instead of fixating on physical traits (Harvey, 2013, pp. 126-130). Capital which is entirely used up and transfers all its value within a single turnover is fluid. Therefore, makes variable capital is also a part of fluid capital as its value along with surplus value is entirely transferred to the product (Marx, 1992, pp. 243-245, 245-246, 291). In contrast, fixed capital takes more than a single turnover cycle to transfers its entire value. Part of the value of fixed capital returns as money capital while the rest continues to operate in depreciated physical form until all its congealed value expires (Marx, 1992, pp. 239-243). For Marx, the fluid portion of constant capital was composed of the objects of labor such as raw materials and ancillaries while fixed capital composed the means of labor (Marx, 1992, p. 241). Moreover, fixed capital could be found in both physically stationary forms such as factory buildings used for production or storage facilities and moveable forms such as airplanes, trains, ships etc. (Harvey, 2013, pp. 121-126).

Nevertheless, Marx himself referred to all immobile forms of capital with fixed capital (Marx, 1991, p. 908-909). If a fixed improvement was used to accumulate capital by its owner and was not unproductively consumed, he denoted it as fixed capital. For example, he considered rented homes as a type of fixed capital (Marx, 1991, p. 465; Marx, 1992, pp. 241-242, 256, 260, 288). At other points he generically referred to the built environment as fixed capital 'independent' of specific types of production (Marx, 1993, p. 686). The name he accorded to fixed improvements was La Terre Capital (Marx, 1976, pp. 151-153; Marx, 1991, p. 756). He writes:

'Capital may be fixed in the earth, incorporated into, both in a transient way as is the case with improvements of a chemical kind, application of fertilizer, etc., and more permanently, as with drainage ditches, the provision of irrigation, levelling of land, farm buildings, etc. I have elsewhere used the expression *'la terre-capital'* to denote capital incorporated into the earth in this way. This is one of the categories of fixed capital' (Marx, 1991, p. 756).

Marx here is using the term permanent improvements and immobile fixed capital interchangeably. Such wording has carried over in contemporary political economy. Harvey, for example, considers all buildings and infrastructure such as railways to be fixed capital. He envisions the built environment as composed of units of fixed capital (Harvey, 2013, pp. 118-119, 132, 137; Harvey, 2018, p. 224, 226-229, 232-235).

The reason for this general use of the category has to do with turnover time. Capital employed in circulation also has to turnover. And here too a distinction needs to be made between capital which is entirely used-up in a single turnover and which is not (Marx, 1991, pp. 417-420). For Marx the general turnover time for capital was the period of one-year revolving around the crop cycle and this length of time is what still constitutes the fiscal year today (Marx, 1992, p. 236). The categories of fixed and fluid capital in production from which circulation proceeds offer this insight. The ability of buildings to outlast several annual turnovers is the reason why Marx used the term of fixed capital for them in a more general manner (Marx, 1993, pp. 89; Marx, 1992, p. 266). Such permanent improvements even outside production behaved like immobile fixed capital. It is also why Marx did not use the term of fixed capital in the case of residential property owned for consumption. He acknowledged that the physical structure was not used as capital so there was no point in categorizing what was fixed and fluid (Marx, 1992, p. 288; Marx, 1993, p. 687).

Given the lack of explanation for this usage it can seem that Marx and others contradict themselves by confusing fixed capital in production with all physically fixed capital. From this misjudgment it would be easy to conclude that they fell into the same crass empiricism they warned off in the first place.

In order to avoid this terminological confusion, I simply use the term building instead. It captures the wider-use of structures and infrastructure outside production. Privately owned railways comprise a portion of the daily individual consumption of households while also being used for production and circulation of commodities. Other example are offices used by marketing firms as well as multifamily apartment complexes rented out to households. A cursory examination of the skyline of any global city reveals that buildings which are used to make a profit or are rented out do not necessarily carryout production. They may house law firms, accounting firms, stock exchanges, banks, institutional funds, consultants, marketers and real estate companies.

As stated above, buildings used to make a profit or lent out need not be productive capital. Thus, within the scope of buildings as a category also come forms of capital physically incorporated into land outside the production process. It is a broader concept and inclusive of all forms of immovable commodities which are either actively used by an owner-occupier to make a profit or rented out. To give another example, a building may house residential tenants, a retail shop and start-ups knitting designer clothes. It is in other words being used for consumption, circulation and production. However, in all three cases it is used as physically affixed capital. All three are buildings. Immobile fixed capital in production then comprises only a subcategory of buildings. Similarly, immobile fixed capital as defined more generally by its ability to outlast a single annual turnover in production or circulation also comprises a subset of Buildings. Finally, all forms of immobile capital whether fixed or fluid (e.g. planted seeds) do equate to the term Building. To put it symbolically:

Immobile Fixed Capital of Production ⊆ Immobile Fixed Capital in General
Immobile Fixed Capital in General ⊆ Buildings

My third contribution in this section is to correct the misconception that any immoveable capital which lasts longer than a single annual turnover only accrues interest. This misconception stems from the writings of Smith and Ricardo who stipulated that any construction affixed to land

could only yield interest (Smith, 1999a, p. 256; Ricardo, 1996, p. 45). Marx carried over this assumption into his own system under the category of la terre capital discussed above. He, similarly, assumed that immobile fixed capital incorporated into the soil could only ever yield interest (Marx, 1991, pp. 756-759). However, the question to ask is why would functioning capital of any kind only yield interest? What dramatically changes when capital is fixed into the ground for a period of longer than a year to cause it to only yield interest while all other functioning capital outlays return a profit? Dick Bryan has called attention to this inconsistency in Marx's value theory and its implications for the analysis of rent (Bryan, 1990, pp. 176-181).[25]

The failure to distinguish different historical forms of land tenure is the culprit here. It led political economists including Marx to naturalize property relations in land as an innate aspect of immovable objects. Capital physically rooted into the land does not yield interest as a natural trait. Buildings only yield interest along with a sum for the depreciated portion when rented out. However, in the heyday of classical political economy such 'permanent improvements' could only be rented out as the landed gentry had a monopoly over all land. Freehold property at the time existed only in exceptional cases because land had been monopolized by a rentier class. The form of land tenure was that of short-term rack-rent leaseholds. Therefore, any buildings (e.g. barns, fences, irrigation work, ditches, roads, etc.) made by farmers would be repossessed at the end of the lease by the gentry. It would be appropriated by the landlord without equivalent. Once the farmer's lease was renewed, the same improvements would now be lent back out to him as the landlord's property (Marx, 1991, pp. 756-760). As a result, immoveable structures were used to garner a passive income by the idle aristocrat. It was this historically specific system of tenure that led classical political economists and Marx to mistakenly consider all improvements as only capable of yielding interest in and of themselves.

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[25] Bryan reasons that fixed improvements could also increase productivity and lower the individual price of production below the governing one, thereby, yielding surplus profits. This would make fixed improvements akin to the second form of differential rent arising from the intensive use of fluid capital. Therefore, why would the landlord be happy with just charging an interest and let the farmer retain the rest of the surplus profit in the case of la terre capital? Unfortunately, Byran looks to resolve this problem through spuriously conflating all ground-rent drawn from landownership with interest on capital (Bryan, 1990, p. 178-180). The simple solution rather is to accept that fixed capital can also add to the intensive margin of ground-rent. This is what Marx seems to have hinted at himself in a brief fragment (Marx, 1991, p. 879-880)

This thinking has now become orthodoxy in political economy. Harvey, for example, explicitly stipulates that all privately owned buildings are in the hands of an idle class of rentiers to which an interest accrues. This forms the fulcrum of his theory of spatial fix (Harvey, 2018 p. 226-229).[26]

However, if there is no landed class and owner-occupation of land is dominant then permanent improvements or buildings in today's lexicon need not only yield interest to their owner. There is nothing innate about capital anchored into the land which necessarily leads it to yield interest. Today, buildings maybe used directly by functioning capitalists to earn a profit or rented out at the rate of interest. In freehold, renting becomes a choice for enterprises instead of a necessity.

I will now move onto discussing the three particular demand traits of buildings. The demand for buildings is heterogenous in quality, small-scale in quantity and irregular in its rhythms. I will detail each demand trait in turn.

Buildings are heterogeneous because of the specifically local character of its demand as well as the multifarious varieties of land-use. The design of the built space has to meet the requirements of a particular local end-user (Geltner and Miller, 2001, pp.4-9). These aspects combine to create a non-standardized product which is highly non-fungible. Let me provide some examples. The four main core property types are office, industrial, retail and multifamily buildings. Nevertheless, in each case sub varieties abound because of the segmented nature of the demand for buildings. Office space for law firms will be different to those of tech start-ups due to distinct business needs. Similarly, Industrial plants are highly specialized and as a result their demand is also heterogeneous. Demand for oil refineries is distinct from that of steel plants. In both cases a mass-produced standardized commodity is out of the question. Similarly, retail

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[26] It is worth quoting Harvey on this point: 'Capital invested in large-scale infrastructures (no matter whether financed by the state or by joint-stock companies can indeed, and generally does, circulate in this way, commanding interest only – in effect subsidizing profits elsewhere' (Harvey, 2013, p. 233).

stores will be different in high density areas to low density areas and will also differ according to income and other demographic characteristics of the neighborhood. High end shops and malls are likely to be found in commercial districts and affluent suburbs. While working class neighborhoods might have to do with low end grocery stores which also cater to the working poor. The same goes for multifamily buildings. Demand for apartments generated by affluent retired personnel will be unlike the requirements of nuclear families still raising children. Locations which are tranquil and away from the bustle of urban life will be demanded. Here locational preferences almost always factor in the quality and quantity of schools nearby. The young and single will also look to have different needs met as well as their own locational preferences. Even in the case of single-family homes the demand is heterogenous dependent on income, location and the quantity of space sought amongst other factors (Islam and Asami, 2009).

The demand for buildings is also small in scale. Owing to their immovability they have to be locally consumed and cannot be exported like other commodities abroad. Immobile capital always forms the domestic stock of an economy and is non-tradable (Marx, 1992, p. 288). This local demand can then only be met on land parcels in the specific area (Ball, Lizieri and MacGregor, 2001, pp. 273, 285-286). The segmented nature of the demand for buildings only reinforces this aspect. An additional factor is that buildings are a highly durable good for which most sales occur out of secondhand stock (Fainstein, 2001, p. 198). Therefore, if the supply of a type of building happens to outstrip the small-quantity demanded the impact on the property's price can be substantial and long-lasting.

The third trait of the demand for buildings is irregularity. This is because it is a derived demand. The demand for buildings stems from the changing patterns of the agglomeration and dispersion of capital. It is derived from the needs of local businesses and residents. Since these patterns are irregular in their rhythm so is the demand for buildings (Sivitanidou and Sivitanides, 2020, pp. 22-25). Here durability also plays a role. Given the long-term durability of buildings they are able to fulfill a need for decades. Once the need for a specific type of buildings has been met it is uncertain when demand will rise again for a similar sort of property because of demographic

or economic changes in an area. The final result is an unstable pattern of demand where history is of little guide.

I will sum up now. The main advantage of using the term buildings instead of immobile fixed capital is that it sidesteps the terminological confusion where all immobile capital may become equated with fixed capital in production. Buildings can be used for circulation and consumption while generating an income for their owners. It also avoids the connotation that physical characteristics of immobility and durability past a single year make an object only capable of yielding interest. Therefore, the crass empiricism where social relations are conflated with the natural properties of things is avoided. I will now move to clarify the relation between buildings and land.

3.3 - Buildings and Land

Contemporary microeconomics as well as macroeconomics conflate land with capital as a foundational principle. Land is accorded only a distinct role in Urban Economics, Real Estate Economics and Land Economics. However, these are considered tangential to pure theory and highly specific sub-disciplinary pursuits. Their focus on land markets and land prices are treated as an unnecessary complication for pure microeconomic theory to consider (Gaffney, 1994a, pp. 39-42). But even in these subdisciplines neoclassical economics reduces land to just its price and, therefore, the opportunity costs of acquiring land (Ball, Liziieri, MacGregor, 1998, pp. 21, 58-62, 65-66). This makes land seem interchangeable with other forms of capital investment and, consequently, capital itself. By reducing land to the price of acquiring it, neoclassical economics obliterates all the particularities traits of land which distinguish it as an independent factor of production.

In contrast, Classical Political Economists took pains to differentiate between the improvements to land through the outlay of capital and the land itself. And was considered an essential factor of production in its own right distinct from capital (Smith, 1999a, p. 256; Ricardo, 1996, p. 45; Ramsay, 1835, pp. 258-259).

As covered above, in Britain at the time land was represented by a distinct landed class which comprised one of the three great classes of society along with capitalists and wage laborers. As a result, land could not be omitted from any general theory as some sort of practical complication. It also could not be thought of as mutually substitutable with capital. Marx took over this tradition and stressed that land was entirely distinct from the products of human labor (Burkett, 2014, p. 90). He understood well that land boasted its own set of unique and contradictory attributes which distinguished it from capital and labor.

In this section, I further elaborate on this conception of land and examine its relation to buildings. I cover five aspects of the relationship between buildings and land. First, unlike all other

commodities, land is unproduced. Second, land determines if buildings can be built and at what cost. Third, land impacts the risk premium of buildings through physical location. Fourth, land price derived from current-use only rises above zero when demand for that use outstrips supply. Fifth, I look at the historical trends in the aggregate values of buildings and land which together form commercial real estate.

I will begin now with the first point. Land is the ubiquitous and unproduced condition of existence. I use the term land to denote all forms of unproduced physical space and its qualities whether it be the soil, bodies of water, subterranean deposits, the atmosphere or outer space. These qualities may be sensible such as mineral ore, river streams, fish and game. Or they could be intangible such as electromagnetic spectrum waves utilized for communication. Land as a category underscores all properties of nature found at a certain point in space. Land in general may be improved for the sake of industry, depleted of its vitality or resources and transformed altogether through the intervention of human labor.

When land is sold as an input it functions as a flow and when it is used an input it operates as a stock. But in either case, land and its properties do not depreciate or be amortized like capital as they are not a product of past labor (Ryan-Collins, Lloyd and Macfarlane, 2017, p. 52). This physical space may partially be an outcome of the human influence on the environment, but it is not an immediate product of purposeful activity (Burkett, 2014, pp. 25-27). For example, the part of a forest which is yet to be cut down will undergo noticeable ecological changes due to the extraction of timber at its borders. However, it would be wrong to consider it as a product of human labor just like the felled timber. Similarly, unmoved soil next to a fringe suburban development will be always influenced by the encroachment of the built environment. However, it should not be classified as a product of human labor identical to the paved streets right adjacent. The work of influence and indirect impact on the environment by humans need to be differentiated from purposeful direct labor (Burkett, 2014, p. 80). Otherwise, land and capital as concepts collapse into one another.

Even without the impact of labor all environments ceaselessly undergo evolutionary and geological changes on their own. The atmosphere, topography, geology and climate are constantly evolving and not static. Therefore, there is nothing necessarily 'original' nor 'indestructible' about land as stated by Ricardo. For these reasons Marx rejected Ricardo's conception of a pristine nature (Marx, 2000b, pp. 244-246). Land is not eternal but rather a product of social history and environmental change. Physical space itself is subject to contortion because of the force of gravity. Physical space can never exist outside time.

Land is a heterogeneous good. Individual locations always boast unique geophysical, social and legal characteristics. The peculiarities of any one location makes it a poor substitute for other locations and vice-versa. The heterogenous quality of land makes it a highly non-fungible asset. The total supply of land in any one area, thereby, is always fixed in quantity and perfectly inelastic. These differences from one area to another create the 'relational' quality of land which is the time required to move from one location to the next (Harvey, pp. 281-285, 2013).

Nevertheless, the supply of land for a particular use within a location such as a neighborhood or commercial center can be increased at the expense of other uses (Neutze, 1987, pp. 379-380). This is the point of land-use conversion through redevelopment. However, once again the total supply of land available in that location forms the upper bound of supply for any particular-use. After that point the supply of land even for a single-use becomes perfectly inelastic. For example, the supply of office-buildings in Midtown Manhattan maybe increased by demolishing parking lots. But the total area of Midtown Manhattan forms the absolute limit to how many office buildings may be built there. Putting up offices in another area is possible but that area will not be the same as Midtown and instead will have its own unique set of characteristics and demand for commercial property.

To sum up, land forms the primordial condition of production through a wealth of unproduced use-values. This wealth is accessed through the carrying out of human labor within

a specific social division of labor (Burkett, 2014, pp. 28-29). Land then also forms the basis of buildings just like mobile commodities. However, unlike moveable commodities, buildings need to be rooted into the surface and so each new building also requires a new plot of land.

This takes me to my second point. Land determines if buildings can be built on top of it and also impacts the costs of production of buildings. One aspect stems from the fact that land availability is a necessary condition for production of new units of buildings. This is a condition unique to buildings as immobile objects. If land parcels are not available in sufficient size or in the correct shape in an area, buildings cannot be constructed. Buildings suffers this condition because land is unproduced and irreproducible. The case of homebuilding serves as an example:

'Architectural development guidelines typically deem areas with slopes above 15% severely constrained for residential construction.' (Saiz, 2010, p. 1256)

Another factor is that land impacts the price of production of buildings because of heterogeneous physical conditions. The character of the ground itself varies enormously making locations remarkably dissimilar for construction. Soil composition, topography, hydrology and climactic conditions play a considerable role in determining construction costs at a site (Burchfield, et. al., 2006; Combes, Pierre-Philippe, et al.; Malpezzi, 1996; Malpezzi, Chun and Green; 1998, Saiz, 2010; Rose, 1989a; Rose 1989b). This leads to differences in the production methods and cost-prices of, otherwise, even identical designs. And different cost-prices lead to different prices of production once average the profit is added on. Land, thereby, contributes to the non-fungibility of buildings.

Third, land impacts the risk premium of buildings and, consequently, the capitalization rate when leased. A location may provide above or below average or mean-level risks for apartments, offices, industrial plants and retail outlets. It, thereby, can increase or decrease their risk premia. Risks vary from location to location because of heterogeneity in economic, social and natural conditions. The risk of vacancies and nonrepayment will be higher in economically depressed areas with a large amount of distressed properties. Such an area will also have higher

risk of property theft and damage. In a similar vein, cross-border investment has to consider political turmoil in the given country. The risk of property damage from natural disasters also needs to be assessed. All these aspects can raise the risk premia and, therefore, the discount rate of buildings (Dasgupta and Knapp, 2008; Hollies, 2007; Lieser, 2011; Sivitanidou and Sivitanides, 1996, p. 10; Sivitanidou and Sivitanides, 1999, pp. 20-21; Sivitanides, et. al., 2001; Hendershott and Macgregor, 2005, p. 320; Chichernea, Miller, Fisher, Sklarz and White, 2008, p. 283; Chuangdumrongsomsuk and Fuerst, 2017, pp. 278-279).

Location is, however, not the only factor impacting risk premia. Each type of land-use requires a certain type of buildings which carries its own set of risks. Therefore, in any given location, the magnitude of risks and, therefore, risk premia vary across property types. For example, in the same city, retail shops may do poorly during a recession and fall behind their rent while student housing fills up as more youth turn towards undergraduate education amidst an economic downturn. As a result, vacancy rates will rise for retail shops but decline for campus apartments in each recession. Owners of retail outlets will, therefore, look to compensate themselves for the higher vacancy levels by charging a higher discount rate for their property over its lifespan. This higher rate of return will reflect the higher risk premium due to greater vacancy rates in retail compared to student housing.

I come now to the fourth argument. Land price in freehold does not arise from capitalized ground-rent extracted by a landed class by blocking the ownership of land by capital. Land is rather invested in and owned by capital which is the direct opposite case. Therefore, in chapters six and seven I develop a novel argument for understanding land price in freehold conditions. What follows here is an outline of this innovative approach.

Lack of a landed class does not mean that the supply and demand for a particular land-use always match. Land, therefore gains a positive price from current-use when the demand for that particular land-use outstrips the supply of it in the area. This is because the property now

sells above the price of production of the building on it. In freehold, the exclusive monopolization of land is then a necessary but not sufficient condition for a land price to arise from current-use.

Commercial property is composed of two component parts – buildings and land. When the supply of the current stock of property in a location equals demand, the property sells at the price of production. Land price from current-use here is zero. In such conditions, land and its qualities are appropriated as a free gift of nature by purchase of a building from the current stock of an area.

But when the demand for a type of property outstrips its supply in a location then a land price for its current-use arises. The property price now equals the price of production of the buildings plus a positive land price. The imbalance of supply versus demand for a land-use can results from two reasons. It can be due to superior advantages of an area for businesses and residential-use. This brings into existence a real land price which exists even when there is equilibrium of supply and demand across all sectors. This is a real land-price not dependent on market fluctuations in the good or service supplied but the advantages offered by the location. Second, demand outstripping supply in a sector can also generate a land-price for a given land-use. This imbalance of supply and demand generates a market price of land above zero. I will discuss both in turn.

A location can have advantages which are unique to it. The irreproducible and heterogeneous character of land, therefore, combine to create scarcity (Burkett, 2014, p. 93, 94-98). It is the limited availability such locations which generates a bidding contest between buyer through which a land price through a bidding contest between buyers. Examples of this are central business districts and commercial centers within a city or an especially beautiful neighborhood. Through this process a real land-price arises for a land-use in an area even amidst sectoral equilibrium. The direct market prices of land for a current-use always fluctuate around their real land-price. The real price of land from current-use forms the subject of my investigation in this work.

A market land price may arise even when a location boasts no superior characteristics for a given land-use and its real land-price is zero. This is due to the demand for certain goods and services outstripping supply to the point there is a shortage of properties. Development of new properties lags behind rising demand for the land-use. Here it is not irreproducible advantages, but the supply shortage for certain goods and services offered by a sector which generate the land-price. The direct market-price of land for a given use then rises above its real price. In areas of average profitability or living conditions, the market land price will decline back to its real price of zero once enough land is converted towards that use across the economy. An example can be offices built during a boom in a neighborhood adjacent to a CBD. Once the new office buildings end the supply shortage of certain goods and services surplus profitability is eliminated the land price goes back to zero. In the rest of the work, I will only deal with the real price of land and ignore the case of the market price of land deviating from the real price of land from current-use. This is because I assume equilibrium conditions.

Real and market prices of land can rise above zero for any type of land-use as land price need not be only derived from production. But land price is never autonomous from land-use (Ball, Lizieri and MacGregor, p. 67, 2001). It is rather determined by the supply and demand for a definite sort of land-use in a given location. Land price from current-use is always determined by the specific types of buildings in an area.

Commercial land prices from current use can be derived from both commercial and residential uses. Positive land prices derived from commercial occupiers are limited to the degree the location offers surplus profitability. Commercial land prices derived from residential use depend on the income of prospective buyers and renters who engage in bidding wars against one another. The willingness of workers to part with a larger or smaller portion of their income depends on the access available to jobs in an area. This is not the case with owners of large businesses who engage in luxury consumption. To sum up, in freehold conditions land price from current-use is a result of scarcity which may or may not be overcome.

Nevertheless, land price need not only be derived from its current-use. It can be derived from an alternate use that a plot may be put to. The projected land price from an alternate-use is derived from redevelopment of land so a different type of building replaces the present one. The land price here again is determined by the kind of building which will be built on the plot. I call the price of land at which a new development sells at the retail price of land. Once the newly developed property is sold its retail land price becomes its land price from current-use.

The money paid by the realtor to buy land for such land-use conversion is what determines the wholesale price of land for development. This is the price paid to repurpose vacant or occupied land towards a new use. The wholesale price of land is then calculated at a discount to the retail price of land from the alternate-use after redevelopment. For land-use conversion to be possible two conditions need to be satisfied. First, the wholesale land price has to be equal to or greater than the current price of the commercial property as a whole. Second, the difference between the wholesale land price and retail land price should be enough to leave the realtor with an average profit.

I will now move onto the final point. Having covered buildings and their relation to land I want to assess the historical trend of their aggregate value. CRE. As of 2016, CRE had a value of 12 trillion (Ghent, Torous and Valkanov, 2019, p. 154). This was the combined value of both buildings and land in total in the United States. In absolute terms, CRE has seen a dramatic rise in its price since 1990 onwards (FRED, 2021).

This rise has been partially due to rising construction costs due to a decline in productivity in the sector (Lepatner, 2007, pp. 35-37). However, partly this has also been due to a low interest rate environment and deregulation of capital controls which has fueled speculative short-term booms.

Still part of the reason lies with the methodological issues stemming from the sparse nature of CRE transaction data and the subjectivity of individual appraisals which inform commercial property price indices. Transaction based indices are constructed from data gathered on individual deals. These samples, therefore, are biased towards more liquid markets where commercial property prices are more likely to rise. On the other hand, in depressed markets there are fewer transactions. Such regions hold distressed commercial real estate where buildings might be selling at a discount to their replacement cost due to their supply outstripping demand. However, they offer comparatively sparse amount of data points for sample collection. As a result, transaction-based samples end up having an inflationary bias. The alternative method of appraisal-based valuations of CRE brings in the danger of subjective bias. The heterogenous nature of buildings along with that of land only compounds the problem (Silver and Graf, 2014, pp. 4-7; Devaney and Diaz, 2011, pp. 269-271).

In spite of such inflationary bias in estimates, the relative value of CRE stock as a proportion to GDP declined between 1980 to 2016. At the same time, treasury notes, corporate debt, common stocks and residential real estate have grown in ratio to GDP. Moreover, residential real estate and common stocks are now greater than GDP. On the other hand, in 2017 the projected value of all CRE stock was still under the GDP. This can be surmised from Figure 2a below on the left.

a As share of Gross Domestic Product (GDP)

b As share of total assets

Legend: Treasury | Common stock | Commercial real estate | Corporate debt | Residential real estate
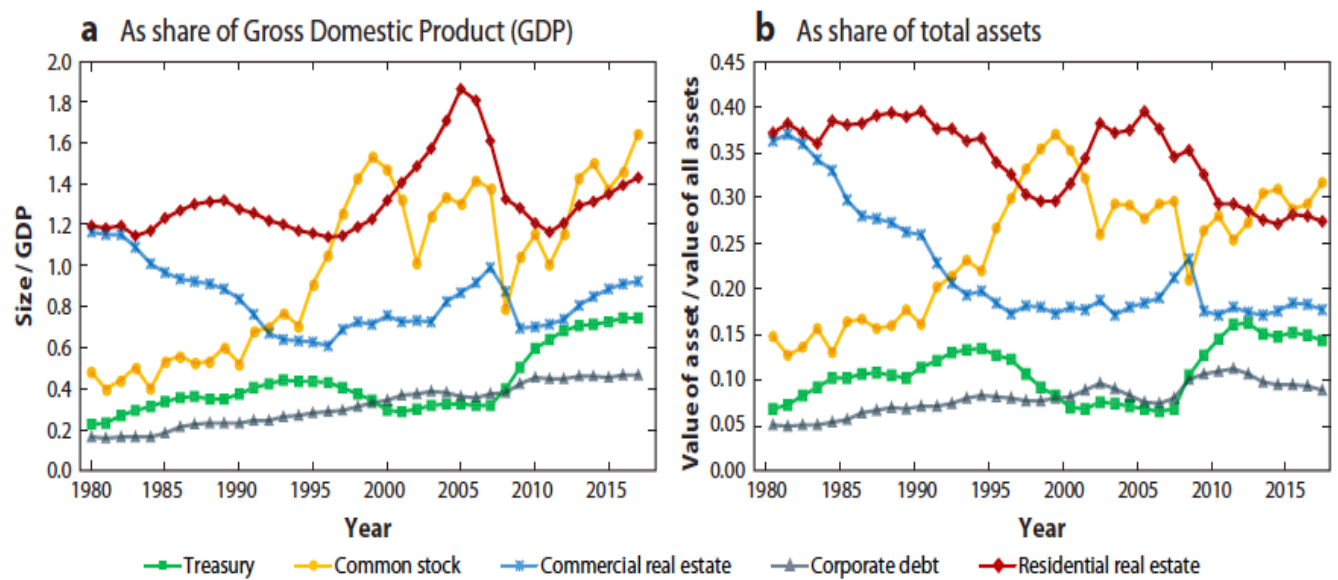
Figures 2a – CRE as proportion of GDP & and Figure 2b - CRE as proportion of total assets in the economy (Ghent, Torous and Valkanov, 2019, p. 154)

The value of CRE stock as a fraction of total financial assets also declined between 1980 to 2017. In 1980, it was 36% of all stock (the data ignores machinery and equipment). Along with residential real estate, CRE comprised to the largest forms of stock in the U.S. By 2017, the share of CRE dwindled to 18%. Even residential real estate declined to about 27 percent of all assets. Figure B encapsulates the decline of both property types along with the concomitant rise of common stock as the greatest asset class comprising 30 percent by 2017. Nonetheless, CRE is still a crucial portion of the economy and vitally necessary for its stability. This is even more so the case with residential property.

This data also calls into question Harvey's spatial fix hypothesis in the commercial and residential property markets from the 1980 onwards. There is no clear evidence, that property booms in the short-run act as the primary pressure release valve for the glut of money capital through development loans. The proportion of real estate as part of financial assets has declined while interest-bearing securities have grown. The two real estate booms of the late 1980s to the early 1990s and then between 2001 to 2007 did not reverse this trend. Moreover, while the

1980s real estate bubble was a development boom, this was less so the case with the boom in the 2000s. The latter in many areas had the characteristics of a price boom with limited amounts of new construction. Simply put, more empirical work is needed to assess the role of CRE in the economy.

3.4 – Conclusion

I set out in this chapter to amend the second analytical gap of urban rent theory which is its lack of clarification between the categories of fixed capital and fixed improvements. I did this through two contributions which lay the groundwork for the rest of part two.

First, I clarified the use of the term building to denote all immovable commodities that lose their functional form if uprooted from the land. I distinguished buildings as a broader category than immobile fixed capital which comprises only a subset of it. Buildings may be used for production, circulation or individual consumption once it has been purchased or rented. Buildings can be used directly by the owner occupier as part of his functioning capital or rented out. There is also no reason to think that buildings can only earn the rate of interest. Due to their immovability and the variegated nature of land-use, buildings have three peculiar demand traits. The demand for them is heterogeneous or segmented in quality, small-scale in quantity and unstable in its rhythms.

Second, I differentiated buildings as capital from land and also analyzed the effect land has on buildings and the price of commercial property. Unlike buildings, land is unproduced and cannot be depreciated. It also determines whether there is adequate space for buildings to be built and impacts construction costs. Land through physical location also impacts the risk premia of buildings. Commercial property prices are then the sum of two components. These are the price of production of buildings and the price of land. In freehold, land only gains a positive price from current-use when the supply of land for a certain use is outstripped by the demand for it in a location. As such, land price is always tied to the specific land-use made by a building. Lastly, a positive land price can be derived from both productive and unproductive uses. With the nature of both buildings and land clarified, I will now move to analyzing realtor's profits drawn from the circulation of commercial properties.

Chapter 4 – Realtor's Capital & Profits from Buildings

4.1 - Introduction

In this chapter, I respond to the third analytical gap which is based on my third observation that commercial real estate firms specialize as merchants of income-producing property. Marx differentiated merchant's capital from productive capital and critiqued political economists for conflating the transportation industry as a productive enterprise with capital employed in circulation. Merchant's capital comes to specialize in the functions of circulation as an autonomous offshoot from productive capital. Without merchant's capital these functions would otherwise have to be carried on by productive capital itself. Merchant's capital, therefore, reduces the time and costs of circulation. Marx split the category of merchant's capital into two parts, commodity-dealing or commercial capital and money-dealing capital. Commercial capital reduces the costs and time of circulation associated with commodity capital (Marx, 1991, pp. 379-380, 391). Likewise, money-dealing capital reduces the costs and time associated with the functions of money capital. Marx considered banking capital to be a further evolution of money-dealing capital once it begins to specialize in the functions of credit money (Marx, 1991, pp. 431,528).

Property developers and commercial property firms, more broadly, then should be considered to be a peculiar subcategory of commodity-dealing capital. I refer to both as realtor's capital or realtor for short. The term realtor signifies the immovable character of the commodity of realty, from which the autonomous and specialized functions of this merchant arise. The realtor is a distinct commercial capitalist because the nature of his commodity stops him from simply buying and selling commodities in wholesale quantity. The characteristics of realtor's capital are reminiscent of, but not identical, to the merchant manufacturer of the putting out system. Here I assess the profits of realtor's capital which are drawn from the sale and lending of strictly buildings. I assume that all owner-occupiers are functioning capitalists competing for

profit. I ignore the role of land price in my analysis as no explanations for its sources or how it forms have been provided at this point.

In section 4.2, I analyze the profits of realtor's capital drawn from the sale of newly produced units of buildings. I show how realtor's capital provides services as a peculiar sort of commercial capitalist and in turn draws the average rate of profit. Alternatively, the realtor might enter the market as a lender in kind of buildings. I detail various aspects of building rent and the leasing of buildings in section 4.3. In section 4.4, I analyze the four sources of moral depreciation of buildings. In 4.5, I offer a synopsis of the chapter. Chapter four is linked in two ways with my broader argument. First, I demonstrate that in freehold there is a type of merchant capital specializing in the circulation of immovable capital and land instead of a class monopolizing land. Second, the analysis here sets the stage for ascending levels of complexity in subsequent chapters where the sources and formation of land price are analyzed along with realtor's profits drawn from it.

4.2 - Realtor's Profits from Sale of Buildings

In this section, I first outline the process of buildings intermediation and outline the essential functions provided by realtor's capital. Second, I discuss the sources and forms of realtor's profits garnered in return for these services. Third, I detail the peculiarities of the turnover cycle of realtor's capital and the additional functions that arise from it in comparison to the ordinary commercial capitalist. Fourth, I clarify that realtor's profits from the sale of secondhand stock are a distinct form of commercial profits. I begin below with the first point.

As discussed in the previous chapter, buildings are a commodity with three particular demand traits. Qualitatively, the demand for it is deeply segmented. The heterogenous nature of its demand stems from the variegated nature of land-uses themselves (Geltner and Miller, 2001, pp.4-9). In addition, the quantity of buildings demanded is small-scale owing to its immovability. The only demand that it can satisfy is on specific land parcels where certain land-use is demanded. Buildings erected in the wrong location may have no use at all (Ball, Lizieri and MacGregor, 2001, pp. 273, 285-286). The demand then by definition is local as it cannot be moved around. The highly durable nature of buildings only further lowers demand as well (Fainstein, 2001, p. 198). Third, as the demand for buildings is derived from changing patterns of agglomeration in an area it also unstable (Sivitanidou and Sivitanides, 2020, pp. 22-25). Moreover, the durability of buildings means that they can satisfy demand for decades. This also makes it hard to predict when new demand will arise in a locale again.

Due to these three demand traits of buildings, its producers depend on the realtor as the merchant to initiate production. This is what leads to the peculiar process of property development. It is composed of a sequence of four steps through which realtor's capital turns over. First, the realtor advances his own money capital to purchase a specific plot of land. Second, the realtor commissions design firms to create a blue-print for buildings. Third, the realtor commissions a construction contractor to physically build. Fourth, the realtor promotes the newly finished unit for sale or rent (Peca, 2009; pp. 65-69; 74-86; 134-150; Brown, 2015, pp. 61-

72). Each step acts as a precondition for the next, sequentially honing in on the targeted demand segment.

The peculiar demand traits of buildings and heterogeneity of land parcels generate unstandardized design. Their designs exhibit a high degree of non-fungibility because of the heterogeneity of demand and locational features. Buildings, therefore, cannot be circulated in wholesale quantity as if they were a one-size fits all mass-produced good.

Realtor's capital distinguishes itself as a specialist intermediary for buildings through this four-step process which arises out of the peculiar demand traits of immoveable commodities. Through its turnover process realtor's capital provides seven essential functions. These seven functions are as follows. First, it initiates production through advancing money capital for land acquisition and subsequently commissioning productive capital. Second, it lowers the circulation time of buildings. Third, it reduces the circulation costs of buildings. Fourth, it lowers production time by acting as the central coordinator between design and construction of buildings. Fifth, it lowers the production costs by sourcing the cheapest design and construction contractors. The realtor is obligated to carry out the latter two functions because unlike a conventional merchant his money is tied up in production. Sixth, the realtor decreases the circulation time of land. Seventh, the realtor also curtails the circulation costs of land. Realtor's capital like any other commercial capital exists only to the degree it can provide these essential functions.

This brings me to the second point of this section. In return for these seven services the realtor draws the average rate of profit through the sale of buildings. The source here of the profits of the realtor is the production price or the 'wholesale' price of production at which he purchases buildings and the final or retail price of production he sells it. In this regard, realtor's profits from the sale of buildings are the same as commercial profits of other commodity-dealers. Realtor's capital does not produce any value or surplus-value. Buildings are bought below its retail price of production by the functioning capital of circulation because the realtor's capital shares in the surplus value in proportion to its capital outlays along with the productive capitalist.

More specifically, the realtor purchases the blue-print of a building at its wholesale price of production from design firms. Subsequently, the realtor purchases the construction at its wholesale price of production from the contractor.

Moseley provides a succinct formula for commercial profit which also applies to realtor's profits drawn from the sale of buildings (Marx, 1991, pp. 392-393, 396-400, 423; Moseley, 2016, pp. 95-98). I will use Moseley's formula here with slight alterations. Assuming a single annual turnover we have:

(1) WP = Kp + R' (Mp)

(2) PP = WP + R' (WP)

Where the wholesale price (WP) is equal to the cost-price (Kp) composed of the constant and variable capital consumed plus the average rate of profit (R') on total productive capital outlays (Mp). Retail Price (PP) is then equal to the wholesale price (WP) plus the average rate of profit (R') charged on the wholesale price of production (Moseley, 2016, p. 97).[27] Nevertheless, the commodity-dealer's capital outlays are composed of not just buying and selling the good itself but also the faux frais of production that arise in circulation. These capital outlays made by the commercial capitalist may be less than, equal to or larger than the total wholesale price of production of a sector depending on the nature of its commodity trade. In either case, commercial capital will look to share in the total surplus value in ratio to its proportionate capital outlays.

In the case of realtor's capital, the commodity he is dealing in has niche demand and is immovable. Therefore, the realtor has to make considerable capital outlays upfront on the circulation costs of buildings besides the purchase of design and construction at the wholesale

[27] Moseley uses the term 'commercial price of production' for the final production price. I have changed the term here to Retail Price of Production for greater clarity through contrast to the wholesale price of production which is the intermediate production price.

price of production. To begin with, the realtor has to carryout marketing studies to hone in on an end-user demand segment. This is followed by a feasibility studies to gauge profitability of the project. Only a single project emerges as profitable and practical for the realtor after researching ten to twenty. Subsequently, the realtor has to find design firms as well as consult expertise. Then come the circulation costs tied to how the bidding process through which the construction contract is awarded. In the model above, I ignore the role of lenders, but it is common to take up construction loans. This creates legal costs tied to loan negotiations.

The circulation costs for a plot of land are also inextricably tied to the production of buildings. The realtor also has to pay out of pocket for these distinct costs of land which arise in property development. These include land surveys, soil composition analysis, site surveillance and security, subdivision or land assembly fees, environmental impact report filings, land title registration and insurance fees as well as the costs of the 'entitlement process' such as development fees, building permits and inspection fees through which zoning regulations are met. And similarly, to any business there are insurance and accounting costs. These can outweigh the wholesale price of production of construction. They may even exceed the wholesale price of production of design and construction combined (Peca, 2009, pp. 95-97, 105-112, 114-115, 138-141; Harvard, 2014, pp. 52-54, 62-79; Kone, 2006, pp. 130-131; Brown, 2015, pp. 198-199). The realtor also recoups the circulation costs of land with an average profit by buying buildings at its wholesale price of production and selling it at its retail price of production.

Equation two above makes a simplifying assumption that there are no faux frais expenses incurred by the commercial capitalist. Therefore, the merchant just draws an average profit on the wholesale price of production and no other capital outlays are made such as the office building, computers, desks, etc. In order to make equation two more accurate I will add the cost of expenses (e) in circulation upon which the realtor also charges an average profit. Furthermore, a portion of these expenses is entirely used up (u) annually. The the retail price of production (PP) then needs to also compensate the commercial capitalist for the part of the expenses that are entirely consumed. This gives us our third equation:

(3) PP = WP + R' (WP + *e*) + *u*

Part of the capital consumed (*u*) is due to wear and tear. Physical depreciation is not restricted to the sphere of production and it also comprises a portion of overhead costs. However, physical depreciation in circulation does not transfer value to the commodity as it is unproductively consumed. Examples of this are utility bills and all other ancillary supplies consumed by the realtor's capital which need to be replaced annually. Moreover, depreciation of equipment such as computers, stationary, furniture, etc. also count as unproductively consumed capital that the realtor looks to be compensated for. Another portion of the capital consumed are wages and salaries for the realtor's agents who carryout research, advertising, book-keeping, legal compliance and sale. Capital laid out for agents, accountants, analysts and lawyers is entirely consumed and the realtor will look to be reimbursed for these costs. They also comprise a portion of *u*. However, this work only lowers circulation time and costs. It is in and of itself not directly productive. No value or surplus value is produced (Marx, 1991, pp. 408-415). Furthermore, all regulatory fees and insurance costs which arise in the sphere of circulation also comprise a part of *d* as these capital outlays are entirely consumed. The retail price of production then needs to be high enough to compensate the realtor for the portion of his capital which is consumed along with an average profit on his total outlay.

The retail price of production of a building may be below, equal to, or above its value, depending on the organic composition of capital in its production process. If the retail price of production of buildings is above its value, then a part of productive capital and realtor's profits will accrue from surplus value produced in industries with below average organic compositions of capital. This aspect of buildings is no different than that of any other commodity capital. And neither does it alter the character of commercial profits drawn from the realization commodity capital.

Commercial profit gives off the appearance of an arbitrary mark-up on the price of a commodity. And it gives rise to the misconception that prices are simply mark-ups above the value of commodities (Marx, 1991, p. 397; Moseley, 2016, pp. 97-98). The greater the capital consumed and capital outlays then the greater will be the wholesale price of production. Consequently, the mark-up on the wholesale price has to be that much greater in order for commercial profits to equal the average. Furthermore, the longer the turnover time of commercial capital then the greater will this subjective markup seem (Beitel, 2020, p. 228- 233). This is exactly the case with mega-projects with multiple buildings or large-scale infrastructure. Therefore, the illusion given off by commercial profits becomes even more pronounced here. For example, it is routine for realtor's capital to add twenty to twenty-five percent profit margin on the design and construction costs of a shopping mall which comes to equal $100 million. What in fact has happened is that the realtor has bought a commodity at its wholesale price of production below its retail production price in order to make the average profit. Nevertheless, the illusion that the profits of the realtor come from intuitively judged premium on development cost outlays is textbook orthodoxy today. In real estate parlance, commercial profit of the realtor is called 'developer's profit' or 'developer's fees' (Geltner and Miller, 2001, p. 799; Wyatt, 2013, pp. 190-191,403-408; Appraisal Institute, 1992, pp. 327-328; Brown, 2015, pp.39-40; Peca, 2009, pp.29-30, 79, 114-115).

It may also seem that the workers who are agents of the realtor receive a commission from the sale or renting of a building and, therefore, pocket a portion of its sold price. This is only an illusion caused by the realtors in the U.S. and U.K. employing a piece wage-system when it comes to the leasing or selling of properties. In this regard, it is worth noting:

'The piece-wage is nothing but a converted form of the time-wage, just as the time-wage is a converted form of the value or price of labor-power…piece wages…become the most fruitful source of reduction in wages and, and of frauds committed by the capitalists; (Marx, 1990, pp. 692-694)

In cases where a productive capitalist does not need a commodity-dealer then there is no distinction between the retail price of production and the wholesale production price. The productive capital realizes its average profit through selling the commodity at it final price of production as there is no separation of commercial profit from that of the producer. The producer here realizes all the surplus value congealed in the final price of production. Superficially it then seems that productive capital is better off with a higher average rate of profit when there is no commercial capital (Moseley, 2016, p. 96). Nevertheless, this assumes circulation costs and circulation time would remain the same in the absence of a functioning capital specializing in the sphere of circulation. However, in reality, the time and costs of circulation would become much greater if there was no merchant. Commercial capital only exists when it raises the rate of profit for productive capital through specializing in circulation. Therefore, productive capital benefits through paying for the autonomous specialization of commodity-dealers by parting with a part of the surplus value (Mandel, 1970, pp. 189-191). This is the case with design firms which produce blue-prints for buildings and construction contractors who build it. Both types of productive capital, thereby, increase their profits through the realtor specializing as an intermediary for buildings. Nevertheless, if more buildings are used for the purposes of circulation in an economy the greater also becomes the proportion of capital stock which is unproductively consumed.

Unlike the ordinary commercial capitalist, the realtor does not only lower circulation time and costs of commodity capital. It also carries out another five essential functions. This bring me to the third point.

Realtor's capital is a commercial capitalist who accrues commercial profit from the sale of buildings. However, the turnover of realtor's capital is highly distinct. It should not be conflated with that of the merchant who buys wholesale and sells en masse, remaining unconcerned with production (Banaji, 2020, pp. 3-5). The turnover of realtor's capital is different in three key aspects in comparison to the normal commodity-dealer as depicted in political economy. It is through these three differences in its turnover cycle that the realtor performs its five additional

functions as an intermediary. Below I lay out each of the three differences in the turnover cycle of realtor's capital and the additional services which arise from it.

First, the realtor can only initiate his turnover cycle by also igniting the turnover cycle for productive capital that he functions for as a merchant. This is because of the three demand traits of buildings which are instability, small-scale quantity and segmented quality. The realtor, therefore, has to commission productive capital which then designs and builds to order. The turnover of productive capital here is entirely dependent on realtor's capital. This makes the turnover of realtor's capital more akin to the merchant of the putting out system (Banaji, 2020, pp.89-98). However, in the case of the realtor it is not workers from families or guilds but rather construction and architectural companies which are contracted. Nevertheless, this crucial aspect of the turnover of realtor's capital is unlike that of common commodity-dealers. Normal wholesalers buy goods en masse which have been already produced and the producers do not dependent on the merchant to commission them (Marx, 1991, pp. 417-420, 424). Unlike them, the realtor performs the additional service of initiating production.

Second, the turnover process of realtor's capital requires the purchase of land. This is because the realtor specializes in immovable goods. So, each new unit also requires a new plot of land for its production. And the producers of buildings do not produce unless if commissioned by the realtor. Therefore, the realtor has no choice but to advance his own money to purchase land and hold it until the production of buildings on top of it is finished. Consequently, it is necessary for the realtor to specialize in the intermediation of land in order to lower its circulation time and costs. All other merchants buy and sell mobile goods which do not require land per new unit produced. (Marx, 1991, pp. 418-419). Therefore, these commodity-dealers do not have to buy land for their capital to turnover. Expertise in the intermediation of land then makes realtor's capital a unique subvariant amongst commodity-dealers. The realtor provides the two additional services of lowering the circulation time and costs of land.

Third, realtor's capital becomes tied up directly in the production process of the commodity. This is a direct result of the necessity to commission production. The realtor now finds his money capital tied up in the land acquired along with the production process happening on top of it. As a result, his money cannot return to him augmented with a commercial profit until production is finished. The capital of the realtor then cannot circulate multiple production processes at once as in the case of the wholesaler who buys and sells en masse without his capital ever getting tied up in production. The one exception here are presold buildings (Peca, 2009, pp. 120-121).

The capital of the normal commodity-dealer, on the other hand, as described by Marx is autonomous of production and it can facilitate the realization of values of multiple production processes at once (Marx, 1991, pp. 418-420). The proverbial commercial capitalist is not at all concerned with production time:

'Commercial capital certainly facilitates the turnover of productive capital; but it only does this in so far as it cuts down the latter's circulation time. It has no direct effect on the production time, which also forms a barrier to the turnover time of industrial capital' (Marx, 1991, p. 418)

This circumstances then in which the realtor finds himself during the turnover process are entirely unlike the wholesaler who squarely stays in the realm of circulation by just buying and selling. Therefore, the realtor is forced by necessity to provides the two additional services of minimizing production time and production costs. It lowers the time of production by coordinating between design and construction firms (Miller, et. al., 2009, pp. 8-11; Peca, 2009, pp. 103-104, 145-147). And it lowers production costs by sourcing the cheapest design solutions and construction contractors (Lepatner, 2009, pp. 16-27).

These three unique aspects of the turnover cycle of realtor's capital are what make it carryout five more essential functions in addition to simply lowering the circulation time and costs of commodity capital.

The schemas below help summarize the differences in the turnover cycles of the two types of merchants. The first circuit is that of the normal commodity-dealer who buys wholesale and sells en masse unconcerned with the production process and land acquisition (Marx, 1991, p. 419). The second schema outlines the turnover cycle of Realtor's Capital:

(1) Turnover Cycle of Common Commercial Capital:

C-M … M-C

(2) Turnover Cycle of Realtor's Capital:

$$M - C_{land} - C_{design} - C_{construction} - C'_{Buildings+Land} - M'$$

The distinct turnover process of realtor's capital is what is responsible for the commonly recognized idiosyncrasies of the property development process. It has four basic phases of land acquisition, design, construction and promotion of the finished development. In part three I will examine in detail each of the four phases of the turnover cycle of realtor's capital. I will now move onto the fourth and final point of this section.

Realtor's profits drawn from brokerage of secondhand stock of buildings should not be conflated with commercial profits. Buildings are a very durable commodity and, therefore, it is more common for such transactions to occur than actually new commodity capital coming onto the market in any single year.

In such instances the realtor does not buy a commodity but simply acts as an intermediary between the owner and the customer. Whether the building is bought by the customer or rented does not change how such brokerage profits drawn are determined. The crux of the matter is

that here realtor's capital acts as an intermediary of secondhand stock. The building has already been sold previously at its final or retail price of production. Therefore, it would be erroneous to claim that realtor's profits here also accrue from the difference between the wholesale price of production and the retail production price of a building.

Nonetheless, the realtor does lower the circulation costs and time of the transaction as the middleman. And this is precisely why he is hired. He may be hired by the owner looking to sell or rent by a prospective customer looking to purchase or lease a building. In either case, realtor's capital lowers cost outlays and the time required for the intermediation of used buildings. As a result, the realtor recoups a profit on his total cost expenses and an additional sum to replace the capital consumed. The realtor only acts as a catalyst quickening and cheapening the circulation of used buildings. He does not expend his own money capital on the purchase of buildings. Therefore, the source here of the realtor's profits are not linked at all to the surplus-value congealed in the product. Rather, the source of these profits is surplus-value in circulation from elsewhere in the economy. This is what replaces the money paid in wages by the realtor to his workers and other consumed capital while also returning a profit on the capital outlay.[28]

Alternatively, the realtor might purchase a secondhand building himself and then look to lease it as the landlord. This does not change the substance of the matter. Brokerage profits will still be charged to the lessee in the form of fees and commissions attached to the lease.

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[28] Assuming a single annual turnover, the formula for brokerage profits may be symbolized as: $P = R'(e) + u.$ Where brokerage profits (P) from the intermediation of secondhand stock equal the average rate of profit (R') reckoned upon the realtor's expenses (e) plus the portion of capital used up (*u*).

Section 4.3 Realtor's Profits from Building Rent

When the realtor looks to lease a building rather than outright sell it he acts as a lender in kind. This section investigates the returns of the realtor from renting. I make four contributions here. First, I discuss the category of building rent. Second, I show there is a trade-off between renting and owning. Third, I consider the case when rent is charged for operational expenses in the rental lease on top of the building rent. Fourth, I discuss how a differential building rent may be charged in a lease due to a drop in the rate of interest.

I begin now with the first point. The realtor charges a building rent for the lending in kind of buildings. I assume here the tenant is a functioning capitalist competing for profits. The case of residential rent is ignored. Additionally, land price is assumed to equal zero.

When buildings are lent out the building rent now becomes its price and its price of production instead acts as the loan principal. The building rent is composed of two parts. The physical depreciation and the interest on the retail price of production of the building. Here a crucial distinction needs to be made in terms of which price of production the realtor buys at and afterwards lends at. The realtor pays the wholesale price of production for the buildings. But he lends in kind at the retail price of production. Therefore, he first marks up the commodity bought from the design and construction firms with a commercial profit. He then looks to lend in kind this commodity capital which has been augmented with commercial profit. The loan principal of buildings then reflects the realtor's compensation of an average profit. Lending in kind does not change the fact that he is a working capitalist who provides essential intermediary functions.

In real estate phrasing, he adds a 'developer's profit' to the newly built units he seeks to rent out just as he would if he was looking to sell outright instead (Peca, 2009, pp. 29-30, 79, 114-115). The developer's margin is a distinct result of the property development process and does not occur simply through the purchase of the currently existing stock of buildings. If the realtor was to simply buy a second-hand building to lend then he would be acting purely as a lender. This

is not the case here as he is providing essential services to productive capital as a commodity-dealer.

Thus, the markup compensates him with a commercial profit for his capital outlays along with a reimbursement for the portion of the capital which is consumed. In sum, although, he acquires the building at its wholesale price of production he lends in kind at its retail price of production. This is why the loan principal is equal to the retail price of production of buildings. As stated above, the turnover schema below of realtor's capital when he sells was:

(1) Outright Sale:

$$M - C - C_{design} - C_{construction} - C'_{Buildings+Land} - M'$$

Here *M'* stands in for sale at the final price of production through which the realtor recouped his average annual profit. The turnover schema of building rent then is distinct than from the case of an outright sale for one reason. In the vending stage *M'* is not recouped through sale as the commodity it is lent out while ownership of it is maintained. The schema for building rent can instead be represented as:

(2) Building Rent:

$$M - C_{land} - C_{design} - C_{construction} - C'_{Buildings+Land} - d + m$$

In the case of building rent, the realtor instead lends in kind at the retail price of production. The tenant at the end of the year returns to him the building as the loan principal in depreciated form. And the realtor in return is remunerated for the annual depreciation (*d*) of his commodity along with an interest (*m*) on top of it. The price of buildings now becomes the building rent while its retail production price acts as the loan principal upon which a discount rate is calculated to determine the building rent (Marx, 1991, p. 465).

Assuming equal quality of space, the depreciation and interest will be evenly spread out across the square unit area of the property. If there are common areas, then these are paid by occupying tenants in proportion to the private space they occupy of the building. The formula for building rent then can be presented as:

(1) $B = d + m$

I will now examine the two components of depreciation (*d*) and the interest (*m*) garnered in turn. I want to clarify the depreciation considered here is purely physical depreciation due to wear and tear (Marx, 1990, pp. 508-509). This is distinct from the moral depreciation or devaluation which is referred to as obsolescence in architecture (Marx, 1990, p. 528; Abramson, 2016). In real estate economics, the distinction between physical depreciation from wear and tear is purposely muddled with moral depreciation due to introduction of newer superior buildings. The underlying reasoning is that both lower the price of the current stock of buildings (Baum, 1990, p. 161; Hulten and Wykoff, 1981, p. 81-90; Dunse and Jones, 2005, pp. 208-209). 'Physical obsolescence' from wear and tear is considered to add to depreciation of a buildings just like 'functional obsolescence' which stems from changes in technology and aesthetic preferences (Bokhari and Geltner, 2019, p. 563). I reject this line of thought as it conflates two separate economic variables in the quest for price discovery and respite from taxation. I will deal with moral depreciation of buildings separately in the next section.

The rate of physical depreciation can take a variety of patterns over the lifetime of a building. It may accelerate as the building ages over each year or it may decelerate. Or it may be a combination of both over the lifespan of a building. Conversely, it may remain constant over the lifespan of the building forming a straight-line deduction from its price of production. In all three cases, the amount of depreciation can be calculated as:

(2) $d = PP * (k)$

Where in any given year, the magnitude of depreciation (*d*) of buildings will be equal to the remaining fraction of its price of production (PP) multiplied by the current annual rate of depreciation (k). Through wear and tear the value and surplus-value congealed within the price of production of buildings is given off piecemeal (Marx, 1991; p. 465; Marx, 2000c, pp. 458-459). This formula, however, is not particular to buildings and can be used for other produced commodities.

I will now move onto the second component of building rent which is the interest recouped on the price of production of a building. The source of this interest is different to the source of the depreciation. The interest accrues from the average profit of the tenant enterprise and, therefore, surplus-value. However, this surplus-value is external to that congealed in the production price of buildings itself (Marx, 1991, pp. 460, 480- 481; Marx, 2000c, p. 459). Assuming building rent is paid in annual arrears, the amount of interest in a single year equals the current price of production of the building multiplied by the rate of interest. This gives us equation three:

(3) $m = PP * (i)$

Where the interest (*m*) as a portion of building rent equals its price of production (*PP*) or the remaining portion of it in a given period multiplied by the rate of interest (*i*) or capitalization rate. While

Building rent then equals the price of production multiplied by the current rate of depreciation plus the rate of interest charged on the price of production as the loan principal:

(4) $B = (PP * k) + (PP * i)$

The easiest method to calculate building rent then would be based on two simplifying notions. First, assume straight-line depreciation. Second, equate the capitalization rate to the average rate of interest as if it were loanable money capital (Lapavitsas, 2013, pp. 162-163). This equation is as applicable to moveable capital which might be loaned out as it is to buildings. Nevertheless, buildings form a very specific sort of interest-bearing asset when leased. And it is the only sort of asset which by definition is always lent together with land in a specific location. This warrants a brief overview of the determining factors of their capitalization rate.

The major types of interest-bearing assets can be compared to one another through their place on the risk-return curve. The lower the risk the lower the return. As risk per individual investment rises so does the required return. Treasury securities form the base here with the lowest risk-free interest rate. Then come commercial mortgages which have a higher return for a higher risk followed by corporate bonds. Real estate investments are placed next, higher in terms of risk than corporate bonds but of lower risk than common stock which follow after. Real estate is considered riskier and, therefore, garners a higher return then commercial mortgages because it is a physical asset (Brueggeman and Fisher, 2019, p. 308):

'when properties are leased, tenants are, in a sense, substituting lease obligations created by renting for loans that would be used…Therefore, in addition to credit risks, because real estate investors take the added risk associated with operating real estate, they should earn a greater return than the interest rate tenants would otherwise pay on mortgage debt' (Brueggeman and Fisher, 2019, p. 308)

To summarize, the estimated risk and, consequently, discount rate for buildings is higher than its equivalent in money capital. Its exact place on the risk-return curve is between corporate bonds and common stock. However, commercial property as an asset class is composed of an immense variety of buildings given the variegated nature of land-use. And this means differing risk and return profiles per building type. Table one provides some evidence as this to be the case over a twenty-four-year period.

Property Type	Average Discount Rate, 1994 – 2018
Apartments	12.6
Freestanding Retail	13.2
Industrial	14.1
Office	12.3
Regional Malls	13.8
Shopping Centers	10.3
Health care	12.5
Lodging-resorts	9.4
Manufactured homes	12.9
Self-storage	16.4
S&P 500	10.0
10-year U.S. Treasury	4.2

Table – 1 Monthly Real Estate Investment Trust index returns by property type (Ghent, Torous, Valkanov, 2019, p. 164)[29]

This establishes that all commercial property is lent at a premium to the risk-free rate. These premiums also differ by property type. They vary for two reasons. First, due to the inherently higher risk arising from the lending and operation of a specific sort of buildings. Second, because of fluctuation in the price of land of property already under lease. This may accordingly diminish or increase the capitalization rate of a property. Furthermore, there is evidence that risk premia per property type vary over time. Figure one below graphs the returns by property type in comparison to the risk-free rate from 2001-2018. It shows that as the risk-free rate declines so do the capitalization rates of all commercial property. However, there are differences by how much risk premiums decline. Clearly, there are other factors which influence the premium charged by each type of property.

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[29] The authors used data from the National Council of Real Estate Investment Fiduciaries (NCREIF) to compile the data. These are REIT index level returns as data from property level returns is sparse and far from systematic. (Ghent, Torous, Valkanov, 2019, p. 165). Other common sources for CRE data are reports collaboratively produced by National Association of Realtors (NAR, Deloitte and the Real Estate Research Corporation (RERC), available here: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Real%20Estate/expectations-and-market-realities-in-real-estate-2020.pdf
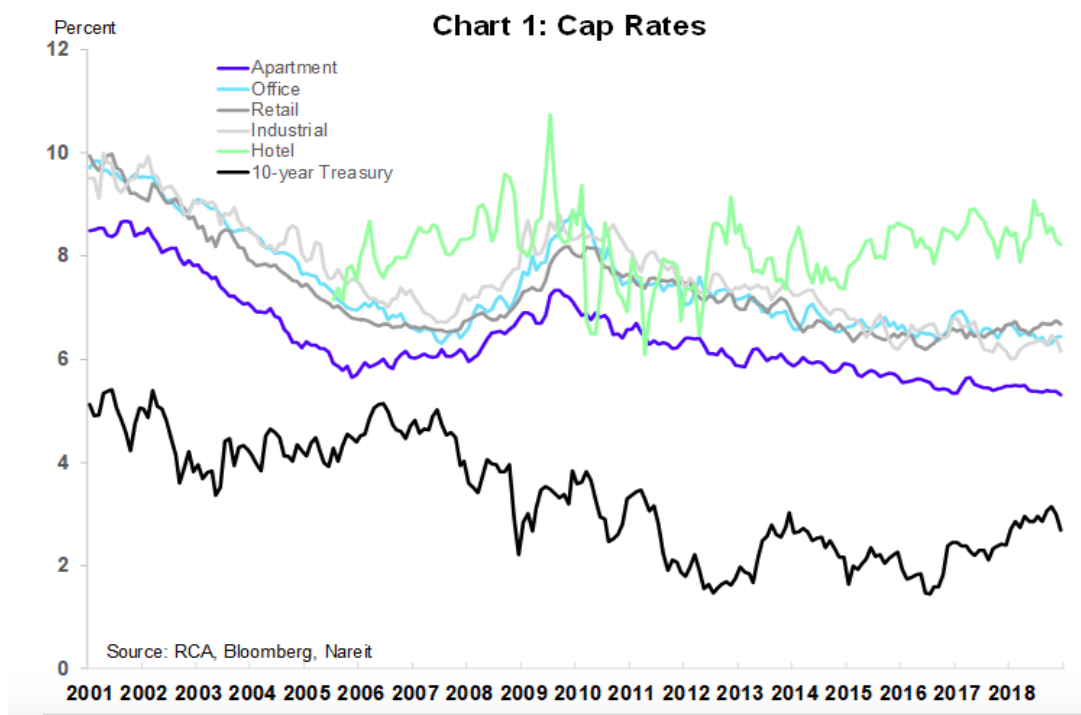
Figure 1 – CRE Cap Rates By Property Type graphed against ten-year treasury note (Schnure, 2019)

One factor impacting capitalization rates here again is the fluctuation in the price of land of leased property. I will, however, ignore this aspect and assume land price to equal zero in order to solely hone in on the determinants of building risk premia.

The capitalization rate (r) for buildings at any point can then be said to equal the sum of the real risk-free (R_f) rate plus a risk premium (R_p) at any point in time. This can be expressed as:

$$(5)\ i\ =\ R_f\ +\ R_p$$

This is the same formula as offered for commercial property with land price. However, the assumption that land price is zero does not change anything. The risk-free rate (R_f) is determined by supply and demand in the treasury markets and is entirely external to commercial real estate (Archer and Ling, 1997, p. 10). The rest of the risk premium (R_p) for buildings can be further divided into three categories.

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First comes the supply and demand in the rental market for a specific type of building in a location. If supply outstrips demand, then the capitalization rate will decline. On the other hand, if demand outstrips supply then the capitalization rate will rise. Finally, if supply and demand balance out there will be no impact on its cap rate. This is the same for buildings as it would be for money capital put up as a loan (Marx, 1991, p. 465). The difference is that a building is a commodity which is lent in kind and fixed in a location. Earlier work on capitalization rates emphasized this aspect of localized supply and demand. Imbalances between the two were used to explain rental growth. Vacancy and absorption rates for a specific property were used to gauge supply and demand for it in a given area (Sivitanidou and Sivitanides, 1999, pp. 20-21; Sivitanidou and Sivitanides, 1996, p. 10; Sivitanides, et. al., 2001).[30][31]

The second category is of microeconomic risks tied to the location and the functioning of the building itself. I will briefly analyze each in turn. Risks vary from location to location because of heterogeneity in economic, social and natural conditions. A location may provide average, above-average or below-average risk for a type of building. It can as such increase or decrease the attendant risk premia. The risk of vacancies and nonrepayment is higher in areas of higher unemployment. Such areas also bear greater risk of theft and damage. In a similar vein, cross-border investments in buildings have to consider political turmoil in the given country. The risk of loss from natural disasters is also always the result of local climate conditions. All these aspects of location can raise risk premia and, thereby, the discount rate. Nevertheless, risks stemming from the physical operation of buildings matter too. There are differences in vacancy rates across property types over their lifespan. This results in differing levels of risk premia for distinct types of buildings in the same location. For example, office vacancy levels are far more volatile than

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[30] Absorption rates are determined by dividing the amount of a particular type of property sold or leased in a given period by the total amount of those properties available. Usually, the period considered is a month. Through this realtor can estimate the collective circulation time of a specific type of property in a location after which its stock will be exhausted (Sivitanidou and Sivitanides, 2021, pp. 24-25).

[31] Commercial property is by definition a long-term illiquid investment. Therefore, for long-term projection of vacancy rates real estate economists rely on the concept of an equilibrium level of vacancies per property type in an area. I am entirely skeptical of the concept. For a defense and empirical application of the concept to office space see Sanderson, Farrelly and Thoday, 2006.

those of industrial buildings. More so, creditworthiness of the tenants renting the building also impacts risk premia. Tenants with strong credit will lower risk premia while those with weak credit will raise it (Dasgupta and Knapp, 2008; Hollies, 2007; Lieser, 2011; Sivitanidou and Sivitanides, 1996, p. 10; Sivitanidou and Sivitanides, 1999, pp. 20-21; Sivitanides, et. al., 2001; Hendershott and Macgregor, 2005, p. 320; Chichernea, Miller, Fisher, Sklarz and White, 2008, p. 283; Chuangdumrongsomsuk and Fuerst, 2017, pp. 278-279; Wheaton, 1987; Wheaton and Torto, 1990, pp. 530-532; Wheaton, 1999).

Finally, the third category is the broader systemic or macroeconomic risk which exists across the economy. Unlike the first two micro-level risks of a property, macroeconomic risk cannot be gotten rid of by reducing portfolio exposure to commercial property. All interest-bearing assets with risk premiums exhibit a degree of systemic risk (Archer and Ling, 1997, p. 10). After the global financial crash, the study of risk premia began emphasizing systemic risk factors in commercial property such as the destabilizing impact of global capital flows which increased the supply of loanable capital (Chervachidze, Costello and Wheaton, 2009, p. 51; Chervachidze and Wheaton, 2013). Newer work has also shone light on how investor sentiment may misprice commercial property and, thereby, impact risk premia (Clayton, Ling and Naranjo, 2008).

These are then the three factors which impact the risk premia of buildings. The equation for building rent can now be rewritten as:

(6) $B = (PP * k) + [PP * (R_f + R_p)]$

Having provided an overview of building rent drawn f I will now move to consider the trade-off between renting and owning. In freehold tenure, renting is not a necessity for enterprise but rather one of two choices. The other choice is that of ownership of property by its occupier who is the functioning capitalist. Today, owner-occupied commercial real estate accounts for sixty-four percent of all CRE. Once purchased, it is held by the owners for long

periods of time as proven by the sparseness of transactions in the market (Ghent, Torous and Valkanov, 2019, p. 156).

Of course, in any single year renting will appear as cheaper than owning. However, the two options can be only compared over a period of time as renting costs add up over time while owning costs are large upfront but made only once. Here I draw a basic conclusion upon four assumptions. First, I ignore the role of land price and only focus on the price of production of the buildings. Second, the discount rate of the building is equal to the average rate of interest. Third, all tenants are commercial firms. Fourth all else holds constant.

The cost of building rent then for a new property will cumulatively add up to the price of production of the buildings after a certain span of years. This length of time is referred to as the years' purchase (Ball, Lizieri and MacGregor, 2001, p. 275). At this point in time the capital outlays from renting equal that of outright purchase of the building. Holding all else constant, at this time the rate of profit from renting is exactly equal to outright purchase. This is because the cost outlays encumbered by the renter over a certain period now equals the price of production of the buildings made upfront by the buyer outright. For a period less than the year's purchase then a commercial tenant will have a higher rate of profit than he would have if he had outright bought the building. This is because during this period he would have made less capital outlays on building rent in comparison to buying. However, the interest payments as a portion of the building rent will be recurring costs on an annual basis unlike in case of outright purchase. The depreciation costs are identical whether one rents or buys but the interest component of building rent does add up. Therefore, with the passing of each year, the rate of profit of the commercial tenant continuously drops until at the length of time equal to the year's purchase it comes to equal rate of profit which he would have from buying the building. After the period of the year's purchase, renting becomes more expensive than owner-occupation. The rate of profit of the renter declines below what it would have been from purchase because the recurring cost outlays on building rent rack up to a larger amount than the price of production.

So, there is a trade-off here. It will make sense for a firm to rent a building when they plan to be in a location for a timespan under the length of the years' purchase. However, if a firm plans to be in a location for longer than the years' purchase length it makes sense for it to purchase the property outright instead.

If a firm does not do this and continues to rent beyond the years' purchase length of time, then it is willing to receive a make a lower profit in order to maintain liquidity. The functioning capitalist makes this sacrifice in order to keep his capital in the form of a money hoard instead of investing in buildings which are a highly illiquid asset. This subject has to do with firm theory and, more broadly, competition. Any further investigation of It lies outside the scope of my argument.

Harvey ignores the concept of years' purchase. He, therefore, always looks at the rate of profit from renting and owning for a period no longer than a single year. As a result, he posits that the rate of profit rises through idle owners of money capital making investments in buildings which are then rented out by functioning capitalists. He uses this to show how spatial fix provides a permanent boost to the rate of profit (Harvey, 2018, p. 228). In fact, such a situation in the long-run would depress the rate of profit. Harvey entirely ignores empirical reality that most commercial real estate is owner-occupied for long periods and there is no landed class. This essential error pervades much of his work on real estate.

There is an additional trade-off between commercial mortgages and rental leases. Renting can be considered to be a substitute for mortgage obligations (Brueggeman and Fisher, 2019, p. 308). However, there is no preset answer here as can be provided using the years' purchase length of time. The rate of profit of the firm can be higher if it rents or if it draws a mortgage. The rate of profit will depend on the lifespan of the property as determined by its average rate of depreciation, the length of the mortgage, and the difference in the discount rate from renting and owning over the course of the mortgage. Considerations pertaining to competition once more arise. Short-term fluctuations in profitability between sectors, and the lower the rate of profit of newer firms impacts their access to commercial mortgages. Firms

which are new or in depressed industries may have no choice but to rent due to a lack of access to credit and capital.

I now turn to my third point. In cases where the landlord pays upfront for the operational costs of buildings, he is remunerated for the capital consumed along with an interest on top of it. This amount is entirely distinct to building rent and should not be confused with it.

All types of buildings have operational expenses which are incurred annually. The final payer here is always the commercial tenant when the building is rented out. Where there are multiple tenants, the operational costs are divided up between them according to their proportionate share of private space of a building. This is the same as how building rent is calculated per tenant for common areas. Tenants with a larger privately usable space pay proportionately more for the building rent of common areas and overall operational costs.

Operational expenses can be thought of as two kinds – variable and fixed. For buildings, usual variable expenses are utility bills such as for electricity, gas, as well as repairs, common area maintenance, security, snow shoveling and grounds upkeep. On top of these variable operating costs are the fixed annual operating costs of insurance and taxes. The capital outlay on all these costs is entirely consumed. Lease structures then differ depending upon whether the landlord or the tenant acts as the first payer for all or a portion of these costs. If all the operating expenses are directly paid for by the tenant, it is considered to be a pure net or 'triple net-lease' (NNN). Here the risk of fluctuations in operating costs is borne solely by the tenant. If some costs are paid upfront by the landlord and others by the commercial tenant, then the lease is of a hybrid variety. Alternatively, in a gross lease, all category of costs are paid upfront by the lessor. This relieves the tenant of all responsibility as first payer and the risk of fluctuations in operating costs is shouldered exclusively by the landlord (Geltner and Miller, 2001, pp. 804-805; Brueggeman and Fisher, 2019, pp. 272- 273). In turn, the lessor looks to recover the capital consumed as the first-payer in hybrid and gross leases with interest. Therefore, in hybrid and gross leases, the

tenant, pays back the operational expenses for the property along with an interest charged on top of them, in addition to the building rent.

It would be erroneous to consider the interest charged on operational expenses as a part of building rent. This is because this interest is added on the capital consumed in operational costs. The principal here is the annual costs arising from the functioning of buildings and not the price of production of buildings which forms the loan principal for building rent. The capital consumed by these costs and the interest charged on top of this capital consumed forms a distinct category. Two buildings of equal price of production may have very different operational expenses and, thereby, the amount of interest charged on them. Nevertheless, the capitalization rate which applies to operational costs is the same as that for the specific property. To simplify matters, it can be assumed that it equals the average rate of interest.

I will now move onto the fourth and final point in this section. A differential building rent may arise because of a fall in the rate of interest after a lease is locked in. In order to develop my argument here, I will first provide a brief summary of lease buildings and how they transform buildings into a financial asset.

Leases for commercial tenants in the United States usually span a length of seven to twelve years. Building rent covered above forms inevitably a descending sequence as each year depreciation is deducted from the price of production of buildings which constitutes the loan principal. Nevertheless, the cumulative sum of building rent over a period of years in a lease always comprises an average. This can be represented as a mean:

(7) $\overline{B} = \frac{\Sigma B}{n}$

A commercial lease then does not have to follow a declining series of building rent for buildings. It can take up a number of forms which simply add up to the average building rent over the given duration. The lease might just outright charge a flat rent level which is equal to the

average building rent over the course of a period.   Alternatively, in graduated leases, building rent forms an ascending series to entice prospective renters. In such a case the below average rent in the first years of the lease is compensated for by above average building rents in its final years. Moreover, in more volatile lines of business such as retail, building rent may be calculated as a base plus percentage fee of sales. Here the base level of rent along with the percentage charged for sales is calculated by the lessor as such to equal the average building rent over a duration. Nevertheless, during offseason the commercial tenant is allowed to pay a lesser rent and such flexibility in the lease retains tenants, thereby, lowering vacancies (Geltner and Miller, 2001, pp. 806-807; Brueggeman and Fisher, 2019, p. 270; Peca, 2009, pp. 152-153).

It is these varying lease structures and the length of the lease which transform buildings from a physical asset into an interest-bearing asset. It is only through the lease buildings then of commercial property that it may be compared with other interest-bearing assets such as stocks and bonds (Peca, 2009, p. 151; Ball, Lizieri and MacGregor, 2001, pp. 271-272). Otherwise, there is nothing innate about immovable capital which makes it a financial asset that yields interest. Most commercial real estate is in fact owner-occupied.

Commercial leases represent a form of loan capital where the building rent forms their price. Leases, therefore, exhibit characteristics similar to that of bonds. For example, the security of commercial leases depends on the creditworthiness of the tenant. This is similar to how the risk of a bond purchase is dependent on the solvency. A fall in the rate of interest after the lease is locked in for a number of years will then make the commercial property be valued at a premium to its price of production. The interest garnering now on the price of production of the building will be at a higher rate than the current prevailing one in the market. Therefore, the building will yield an above average building rent for the given period. This is akin to how a bond sells at a premium to its face-value because of a drop in the rate of interest after its issue (Ball, Lizieri and MacGregor, 2001, pp. 271).

I term this differential building rent. As a result, the building will now sell above its price of production due to its particular lease characteristics. As a result, the property will also sell above the price of production. This rise in the property price cannot be attributed to a rise in the price of land. Rather, the building of the property will sell at a premium to its price of production due to its lease generating a higher cap rate and consequently building rent in comparison to the current market. Conversely, if the rate of interest rises the leased property will sell as a financial asset at a discount to its price of production. This is similar to bond selling at haircut to their face value if rates rise.

Section 4.4 – Moral Depreciation of Buildings

Buildings is heterogeneous in its design because of variations in land parcels and the variegated uses of land from for which it is made-to-order. This makes it highly non-fungible. Nevertheless, specific types of buildings are comparable in terms of how well-built they are for a specific land-use. This makes one office building comparable to another and one warehouse comparable to another. In this regard, it is evident that newer buildings devalue older existing buildings through implementation of technological advances and changes in aesthetic tastes and technological advances such as fiber optics, automation, etc. This is termed 'functional obsolescence' in real estate economics (Bokhari and Geltner, 2018, p. 563; Baum, 1991, p. 61; Abramson, 2017). Marx referred to this as moral depreciation (Marx, 1992, pp. 250-251, 264).

In this section, I analyze four sources of moral depreciation of buildings which arise from newer designs. I ignore here moral depreciation from cheaper costs of production. This is already well understood in the case of all commodities. The first source of moral depreciation I focus on are structural flaws in a building which cause it to physically depreciate at a faster than average rate. The second source lies in above average operational expenses due to design and build inefficiencies. The third source is design inefficiency which hinders the labor process, thereby, lowering productivity or reducing the efficiency of labor in the circulation process. The fourth source is change in aesthetic tastes which devalues older designs.

In each case, newer and superior designs of buildings selling at their price of production devalue other similar types of buildings. Older or poorer designed buildings comes to sell at a discount to its price of production. It, consequently, also receives a proportionately smaller building rent. The owners of older buildings are still compensated for the annual physical depreciation due to wear and tear, but, the interest now accrues on a smaller loan principal due to moral depreciation.

I begin with analyzing the first two sources of moral depreciation in buildings. At any given time then there can be differences within buildings in regard to their rate of depreciation and operational costs. Above average rates of depreciation result in the building becoming morally depreciated for two reasons. First, the amount of annual depreciation is above the socially necessary level. Second, the poor build quality causes higher repair and maintenance costs for upkeep. This aspect increases operational expenses. Another source of higher operational costs in buildings are higher electric and heating costs. In the U.S., energy costs account for approximately 30% of all operational expenses for office buildings (Eichholtz, Kok and Quigley, 2013, p. 52). Moreover, the design of the building can be inefficient because it reduces the privately usable area of tenants because by instead having larger common areas such as hallways and lobbies. This can mean that two buildings with identical external shells and energy consumption can boast different amounts of internal floorspace. A building's efficiency ratio is judged by dividing its total rentable space by its privately usable space by prospective tenants and buyers. Buildings with higher than average efficiency ratios will become morally depreciated as they offer lower floorspace without a reduction in operating costs (Peiser and Frej, 2003, pp. 231, 245).

In the quest to reduce energy costs, the U.S. government has launched a number of programs which incentivize capital expenditures to 'green' buildings. This is turn has accelerated the moral depreciation of buildings. The government initiated two key voluntary programs to retrofit buildings with energy-saving equipment. The first was the EPA's EnergyStar Program which was launched in 1992 and formally extended to CRE buildings in 1999 and the US Department of Energy's 'Better Buildings Challenge' inaugurated by Obama in 2011 (Kok, McGraw and Quikgley, 2011, p. 3; White House, 2011). And in 1993, the private Green Building Council initiated 'Leadership in Energy and Environment Design' (LEED) challenge to provide ratings for energy efficiency in buildings (Asensio and Delmas, 2017). These programs have greatly increased the inventory of 'green' CRE across the country as well as achieved savings in energy-use from anywhere between 18-30% (Kok, McGraw and Quigley, 2011; Asensio and Delmas, 2017). To help CRE owners overcome various hurdles in cost there also exist a plethora

of incentives such as tax deductions, low interest loans and direct subsidization for green retrofits and new construction. Simultaneously, state building codes as a legal requirement set the bare minimum floor (Peterman, Kourula and Levitt; 2012, p. 419). Nevertheless, in 2011, the Environmental Protection Agency (EPA) estimated that approximately 30 percent of energy in commercial buildings was being wasted (EPA, 2011, p. 3).[32]

However, there is mounting empirical evidence that lowering of operational costs due to energy efficiency of certified 'green buildings' means a higher property value in comparison to normal building stock. An OLS study using a large cross-sectional dataset from 2009 for EnergyStar and LEED certified commercial office buildings concluded that:

'even when controlling quite rigorously for quality differences and incorporating a much larger set of observables, we find that green buildings have rents and asset prices that are significantly higher than those documented for conventional office space…analysis shows that within the population of certified buildings, attributes associated with greater thermal efficiency and sustainability contribute to increases in rents and asset values.' (Eichholtz, Kok and Quigley, 2013, p. 61)

This conclusion is also echoed by other studies which have estimated that LEED certified buildings sell at a thirty-one percent premium and EnergyStar approved buildings sell at ten percent premia to comparable properties (Fuerst and McAllister, 2008, p. 23). In sum, outdated types of buildings become morally depreciated due to their faster than average rate of physical depreciation and higher than average operational expenses. The rise of green buildings in the U.S. and elsewhere has only exacerbated the devaluation of older builds. Let us move onto the third aspect of internal building design and its impact on rents and property value.

The third source of moral depreciation lies in design flaws which reduce labor productivity or increase circulation time and costs. As a result, the building has to compensate for the loss in profits. At any point in time there are differences amongst buildings in terms of their internal

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[32] There is a growing literature on the topic of green buildings. Critical commentators have pointed out that energy-efficiency through making energy cheaper may increase the overall use of energy instead. In other words, the Jevon's paradox might be at play in the case of buildings just like machinery (Copiello, 2017).

design. These differences in the internal layout of and materials used in buildings constructed become a source of moral depreciation. For example, office buildings with certain ceiling heights and type of ceilings, acoustical barriers, floorplans, better natural and artificial light as well as air ventilation will be of greater assistance to work and increase labor productivity (Shumake, 1992).

On the other hand, office buildings made of poor-quality materials, lack of airflow, shoddy lighting and consistent leaks have widely been known to cause repeated episodes of nausea, dizziness, skin irritation, allergies and fatigue that are collectively termed sick building syndrome (Murphy, 2006; Jansz, 2011) Of course, more serious building related illnesses such as asthma among others may also be caused by a poor working environment. Worse yet, according to the BLS in 2019 there were a total of 642 lethal and 36,840 nonlethal injuries in the United States due to exposure to harmful substances and environments. Of these 5,770 were in manufacturing and 27,840 were in the service sector (BLS, 2020a; BLS, 2020b). More generally, buildings can have a variety of characteristics which may either increase the stress of employees through overstimulation, lack of personal control and overall poor layout which may catalyze the onset of fatigue (Evans and McCoy, 1998). According to one study, poor quality of buildings may be reducing GDP by between $20- $160 billion a year through lower productivity while medical illnesses caused by work environment are estimated to cost another $17- $48 billion annually (Fisk, 2000).

Finally, the rise in smart buildings which use AI due to the ongoing 'Prop Tech' revolution is also changing the basic thinking about the built environment. Future buildings are now being conceptualized as intelligent devices which gather data and communicate with one another rather than just simply being brick and mortar (Baum, 2017; Poleg, 2019). This technological revolution is still at an incipient stage, but it is set to further accelerated the moral depreciation of buildings in the coming years through increasing labor productivity and curtailing the costs and time of circulation. In sum, buildings with subpar internal design and physical conditions sells and leases at a discount to market rates.

The fourth source of moral depreciation are the aesthetics of a building which may be judged to be obsolete as tastes in architectural design evolve (Baum, 1991, pp. 65-66). To a degree, this has historically been the product of marketing of the American commercial real estate industry. The lack of newness has been considered reason enough to tear down a building and put-up a new one. Although, far more subjective than other sources, evolving aesthetic patterns have been a palpable source of moral depreciation. They are greatly responsible for the constant demolitions of buildings no older than generation in American metropolises throughout the twentieth century (Abramson, 2016, pp. 30-31).

Section 4.5 – Conclusion

By putting forth the concept of realtor's capital, this chapter responded to the third analytical lacuna in urban rent theory which stems owes to the fact that commercial real estate firms act as merchants. Realtor's capital is a peculiar sort of commodity-dealer who specializes in the intermediation of buildings and, thereby, land. The seven essential functions provided by realtor's capital are as follow. It initiates the production process of buildings by buying land and commissioning producers. It lowers the circulation costs and time of buildings. And it lowers the circulation costs and time of land. The realtor also lowers the costs of production and production time of buildings by sourcing the most inexpensive design solutions and construction contractors. In turn, the realtor draws an average rate of profit for these seven services. The form of realtor's profits from buildings is the same as that of commercial profits. If the realtor looks to lease the property after its development, then he then still rents it at its final price of production after he has added to its his profit margin.

To keep the analysis simple land price was assumed to be zero throughout the chapter. This allowed for a sole focus on the profits of the realtor drawn from the intermediation of buildings. Now, the analysis will move towards an ascending level of complexity by considering realtor's profits from land price. However, in order to first get there, I need to cover the sources which give rise to urban land prices. This is what I do next in chapter five where I cover agglomeration as a source surplus profits for urban firms. This in turn will set the stage for an analysis of urban land price in a freehold setting and realtor's profits derive from it in chapter six.

Chapter 5: Surplus Profits from Agglomeration

5.1 - Introduction

Before I move to analyzing realtor's profits which accrue from the intermediation of land, I need to discuss the sources of urban land price. Identifying the sources of urban land price is then the goal of chapter five. In this regard, I already detailed in my literature review that arguments by analogy of agrarian rent categories miss the mark. Instead, an empirical approach is required when assessing the sources of urban land price. Therefore, here I use the fourth observation that firms economically benefit from agglomeration to develop a new theory of surplus profits for the urban context. This chapter then fills in the fourth gap in urban rent theory which Is its lack of understanding of the economic advantages of agglomeration of capital.

The general idea here can be summed in two propositions. First, spatial agglomeration generates surplus profits by creating advantages through clustering of functioning capital. Therefore, the logic of agglomeration cannot be reduced to the features of the technical division of labor internal to a firm such as rising capital intensity. Rather, agglomeration is the spatial form of the social division of labor (Marx, 1990, pp. 471-473). As Feldman puts it:

…urbanization economies come from scale effects that are external to industries but internal to geographic units such as cities. (Feldman, p. 384, 2000).

Second, these benefits of agglomeration decline with distance from the center of agglomerations.[33] Therefore, the rate of profit of firms also declines. The final result is that in the center of an agglomeration firms make surplus profits. At a certain distance from, profitability

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[33] By the center of an agglomeration I do not mean a Von Thunen type idealized center of a circle with uniformity of space as used in Alonso-Muth-Mills spatial equilibrium models (Fujita and Thisse, 2002, p. 64). Rather, what I have in mind are actually existing commercial districts, CBDS and central hubs of transport and found in conurbations. Within urban theory it is well acknowledged that cities can take a number of shapes and can have multiple central nodes (Florida, 2018, p. 142). Cities may be better conceptualized then not as a circle with smoothly declining profit gradient but rather as a mountain range with a number of peaks around which the rate of profit decline at varying gradients.

for functioning capital declines to average rate. Finally, outlying areas make below average returns due to the lack of agglomeration.

To be clear, clustering as a whole uplift the rate of profit for all areas than what would be the case if there was none of it. However, the nature of land ensures that this is an uneven process with greatest benefits achieved in the core that then begin to wane akin to the field of gravity of a planet.

In the chapter sections which follow, I analyze how agglomeration increases profits respectively for a given type of capital and, finally, through the vast concentration of labor-power in cities. In Section 5.2, I explain how the agglomeration of production generates surplus profits. Then in section 5.3, I depict the advantages of agglomeration of commercial capital which yield surplus profits. Section 5.4 covers the benefits which accrue to financial intermediaries through dense concentration that lead to above average profits. Lastly, in section 5.5 I cover how cities generate surplus profits for every type of capital through a vast coalescence of labor-power. Section 5.6 sums up the arguments for the sources of land price and sets the stage for chapter six where I cover realtor's profits which are derived from the intermediation of land in freehold.

Before, I move onto the next section I would like to make a clarification. First, I only propound here how the positive effects of agglomeration on functioning capital generate surplus profits. I do not analyze why patterns of spatial agglomeration and dispersion of capital occur. There is a voluminous literature on the topic in the areas of agglomeration economics, economic geography, regional economics and economic history which covers the multitude of push and pull factor which cause these dynamic patterns (Massey, 1987, p. 85; Markusen, 1985; Walker and Storper, pp. 71-98, 1989; Feldman, 2000; Eckes, 1995, pp. 216-218; Lewis, 2013, pp. 279-292; Sugrue, 2014, pp. 125-130, 138-139, 140-141; McDonald, 2015, pp. 105-133, 180-184, 212-213, 247; Schulman, 1991).

However, here I restrict myself here to covering how agglomeration has a beneficial economic impact. This approach is similar in spirit to agrarian ground-rent theory. It looks at economic effects of natural fertility or the intensive application of capital or agglomeration. It does not delve into agronomy to discover the sources of natural fertility or understand the actual methods through which farmers augmented capital intensity. The same point stands in the case of an inquiry into the sources of urban land price. Nevertheless, in the case of urban areas there are differing types of functioning capitals present. It is not just productive capital which is there. So, I show how the benefits of agglomeration will vary by the type of functioning capital. The benefits which accrue to productive capital are distinct from those of commercial and financial capital.[34] Lastly, in each of the following sections, I also consider the role of public investment and land-use policies which can augment the benefits of agglomeration for a specific type of capital.

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[34] This is a point entirely ignored by agglomeration economics which universally applies production functions to all species of capital.

<u>Section 5.2 – Surplus profits from agglomeration of productive capital</u>

The main point of this section is that agglomeration of productive capital generates advantages for urban firms which fall off with distance from its center. Therefore, areas in the center of an agglomeration enjoy surplus profits. Areas at a further distance receive the average profit and further outlying ones have below average returns. In this section I make three points as to how surplus profits arise from the clustering of production. First, I discuss how the agglomeration of capital creates economies of density in transport costs and lower the time required for transport. Second, this creates a positive feedback loop where the lower time for transport also curtails circulation time and costs for goods. Third, I consider how public investment in transport infrastructure may further increase these advantages.

I want to clarify that by the term productive capital in this section is the production in secondary and tertiary sectors which coalesces in urban area. I leave out production in the primary sector which by nature is dispersed. I begin now with the first point.

There is no naturally occurring cheaper location extraneous to an industry which attracts physical clustering. This is a close-ended model I rejected in my discussion of the urban applications of the first form of differential rent. Instead, the process through which productive facilities locate is endogenous to the industry itself. It is, thereby, an open-ended process. At any point in time there are a variety of areas where industries can relocate or expand towards. Storper in his work has referred to this as the windows of locational opportunity Once the industry locates there it ends up determining the region's economic character. In sum, industries produce regions rather than it being the other way around (Storper and Walker, 1989, pp. 71-75, 83-98).

The more an industry locates to a region the lower do its costs and time for transport as well as storage become. This occurs for two reason. First, cost for freight and storage are achieved through spatial proximity of productive enterprises to one another and other clusters. Firms

located in proximity to one another have far lower costs of transport between each other. And it is also cheaper to ship goods coming from a variety of other locations to a single cluster of firms in area than if they were dispersed. Therefore, transportation costs are lowered as the number of production facilities increase. Similarly, bulk shipments to a central node save time in transport than if the same quantity of goods had to be shipped to several dispersed outlying areas before returning back. Additionally, time for transport is saved between firms themselves who comprise this agglomeration. Second, the new clustering induces demand for the development of transport routes and freight facilities. As such infrastructure comes into existence which further reduces overall time and costs of transport. The clustering of firms through inducing demand for further transport networks generates a positive feedback loop that further reinforces itself. In agglomeration economics, these two mutually supportive factors are in combination referred to as 'economies of transport densities' (Elisson and Glaeser, 1997, p. 917; Mori and Nishikimi, 2002, pp. 167-168, 194-195; Holl, 2004, p. 709; Xu and Itoh, 2018; Rosenthal and Strange, 2001).

The agglomeration of productive capital by creating economies of transport density also lower the risk of supply shortages. Such circumstances accidentally extend production periods and quicken the pace of depreciation of machinery as it goes unused (Marx, 1992, p. 308). At farther out distances from a production cluster where an establishment might be dependent on a few suppliers, the dangers of lack of stock stalling production are greater for three reasons. Shipments take longer, as first goods are shipped to regional productive clusters before being rerouted for their final destination. Second, this makes shipments also more infrequent. Third, such transportation activities are carried on by fewer companies in remote locations in comparison to regional commercial centers.

Either of the two factors which generate economies of transport density cannot be equated to the rising intensive application of capital. First, transport costs are lowered not because of rising investment of capital but rather economy in the use of capital during transport and the curtailment of freight times. Endogenously arising geographic proximity of firms is the initial source of cheaper costs. Only once this clustering has reached a certain threshold of

geographic density does the production of further transport infrastructure become profitable. Without concerted demand for larger transport facilities in the area further economies of density through physical concentration of the means of transport could not be attained. Rising capital intensity in the form of transport infrastructure, therefore, is not the source but only the means through which agglomeration is reinforced. If a large enough number of factories in the area were to relocate after the new transport infrastructure had been already, the economies of density that cheapen freight and storage would be wiped out. This is exactly the case with much of the rust belt today where large empty infrastructure lies unused in ruins next to closed factories. Therefore, any parallels to agrarian rent theory's intensive margin become misleading here. Rising organic composition of capital in the transport sector through further development of technology universally applies to all locations. It is a constant factor, and, consequently, cannot explain geographical variations in agglomeration patterns.

I will now move onto the second point of this section. The agglomeration of productive capital through cheapening transport also lowers the circulation costs of circulation and time for itself. The time and costs of transport occur within the sphere of production. They are productive activities and add to the value of the commodity. Production time is, therefore, lengthened by freight (Marx, 1992, pp. 225- 229). But the development of transport simultaneously also develops the means of communication. Frequency of transportation from one city to another several times a day also lower the costs and time of communication between them. Such communication costs such as that of travel and time required for them do not add to the value of commodities and should not be thought of as productive activities. They are rather expenses required for the sale and realization of value of commodities. Therefore, they compose the costs and time of circulation. The development of transport in the productive sphere then has as a positive reciprocal impact on the sphere of circulation. The expenses and time of circulation generated by travel, meetings, and unproductive labor, are curtailed through frequency of physical transport. Marx acknowledged this in regard to how the development of railways could lead one town to boom as a transport hub while leading another to fall from regional importance due to its relative isolation (Marx, 1992, 326-333).

Although, circulation time and costs do not exist as distinct categories in the neoclassical corpus, the reduction of travel time has also been well documented in microeconomic studies on transport density. Meeting with suppliers, customers and branches of a company located away is a quotidian business practice (Mori and Nishikimi, 2002, p. 168). Studies of American airline industry also have shown that frequency of passenger flights between locations is instrumental in reducing of fare costs. This is also part of the reason that smaller airlines can at time compete successfully with larger firms (Brueckner, Dyer and Spiller, 1992; Caves, Christensen, Tretheway, 1984, pp. 472, 482-483).

By lowering the circulation time and costs, the clustering of productive capital reinforces itself in two distinct manners. First, surplus profitability rises for production firms in the center of the cluster. Second, the lower circulation time and costs provide an inducement for commercial capital to move into the cluster. The more commercial capital agglomerates into the area the further does the dense network of merchants reduce circulation time and costs. This further raises profitability for production and trading capital, thereby, becoming a self-generating force which attracts more production and commercial establishments. The cluster now grows through exerting a gravitational pull from its center. I will detail in the next section how the agglomeration of commercial capital engenders surplus profits.

The advantages stemming from agglomeration of productive capital decline with distance from the central nodes. The farther a firm is located from the center of such an agglomeration the less it benefits from the reduction in transportation costs and time as well as circulation costs and time. This results from the greater remoteness of the location of the firm which increases the time and costs required for transport as well as in-person communication. Surplus profits then only come to exist in the center for productive capital through a reduction of these benefits with distance. As distance rises, profits decline to average levels and at a greater length become below average.

I will now move onto the third argument of this section. Public investment in transport infrastructure and taxational policies can increase or reduce productive capital agglomeration in an area. Nevertheless, public investment can also cheapen transport costs in the economy as a whole. This is achieved by generating economies of transport density through public works. There is a voluminous literature in urban and regional planning which seeks to estimate the beneficial impacts of public investment in transport on agglomeration economies (Chatman and Noland, 2011; Gramlich, 1994; Graham, 2008; Jenkins, Colella and Salvucci 2011; Rivera, Sheffi, Welsch, 2014). Some scholars have also explored how clustering may be induced in peripheral areas of a region through temporarily worsening transport connections to the center (Fujita and Mori, 1996, p. 97).

Perhaps, the most prominent example in American history of public investment in transport infrastructure is the interstate highway system. It developed suburban industries at the expense of inner cities. It also marked the switch from railways as the chief form of transport to trucking. It, thereby, also allowed for the Japanese method of just in time production to become adopted in the United States. Studies have found that public investment in highways has overall increased productivity of manufacturing across the U.S. as a whole. (Lewis, 2013, pp. 286-287; Nadiri and Mamuneas, 1996, p. 115; Eberts and McMillen, 1999, p. 1487).

To the degree, that taxes upon productive capital are exceeded by its savings in transport such infrastructure acts as a subsidy for production. And, therefore, to the degree that workers shoulders part of the tax burden for such projects they provide a free gift to capital from their wages.

Section 5.3 – Surplus Profits from agglomeration of commercial capital

My central claim in this section is that agglomeration of commercial capital generates advantages for urban firms which fall off with distance from its center. This generates an area of surplus profits in the center of a cluster. The rate of profit declines to average levels with distance and even more remote location receive below average returns. I divide my argument into three points which follow.

First, the effect of a dense concentrations of buyers and sellers is to circulation costs and time. This leads to the faster turnover of commercial capital, consequently, generating surplus profits in the center of the cluster. Overhead costs of circulation are also minimized due to faster turnover of commercial capital.

Second, lower circulation time also raises the rate of profit of productive capital in three ways. The magnitude of capital required to be advanced declines. The annual rate of exploitation of labor-power rises. And pauses in the production process that cause excess capacity are minimized. The clustering of commercial capital, thereby, has a reciprocal effect on production and generates the agglomeration of manufacturing activities. This in turn further reinforces the agglomeration of commercial capital creating a circular dynamic of positive feedback loops.

Lastly, the third point considers how public investments and policies can promote or inhibit the rise in profits from the coalescence of commercial capital. I begin now with the first point.

I wish to first make a brief observation on how commercial capital comes to coalesce before moving to covering its positive impacts on the rate of profit. Similarly, to productive capital, commercial capital can also come to coalesce in a central location where then spatial proximity creates surplus profits. At the most general level it can be said that dense markets form where there is a break in the mode of transportation for geographic, political or technical

reasons. This can be the meeting of two rivers, beginning of a mountain or hill range, coastlines or the border between two countries. Moreover, it can be where one form of transport gives way to another such as where railway cargo is offloaded onto trucks. In each case cargo is removed and reshipped. This in turn requires machinery as well as buildings to house workers and store commodities. Therefore, a central market place as a middle point between where commodities are produced and where they are sold as a commercial hub. The geographical concentration of commodities leads to the clustering of commodity-dealing capital on top of it. This is how market towns and cities emerge overtime. Nevertheless, the process is open-ended, full of historical accidents and tied to the nature of the commodity-trade itself (Cooley, 1894, pp. 91- 100; Konishi, 2000, pp. 1-4).

This general fact can in no way predetermine exactly where or why commercial centers emerge or how they rank or against one another or displace each other in a region. The concept of locational windows of opportunity which emphasizes open-endedness in the patterns of agglomeration is once again important to keep in mind. A prominent example of this in U.S. history is how Chicago over the course of the second half of the nineteenth century came to displace St Louis as the central wholesale hub performing the role of a 'gateway' to the expansive western frontier for Eastern cities (Cronon, 1992, pp. 279, 300-309).

The effect of agglomeration of commercial capital at a point in space is to curtail the time and costs of circulation. This is accomplished through a dense network of buyers and sellers in close proximity to one another (Lojkine, 1976, p. 127). First, I will describe how circulation time and costs outlays required for purchase are reduced. Second, I will show how the circulation time and costs of selling are reduced too.

The circulation time needed for purchasing commodities in the area is reduced because there are many sellers at one's disposal. if one or a few sellers are unable to supply the commodity there are several others which can take their place instead. Delays which would be caused, otherwise, due to the differing turnover times of various trades are overcome through a

vast collection of merchants in a singular location. Spatial proximity itself acts as progressive development on the means of communication. This quickens the pace of information buyers can collect about market conditions. The impact of accidental risks on buyers such as short-term supply shortages are also more easily overcome through the clustering of sellers. This lowers the circulation time required by merchant buyers to transform their money into commodities. The speed of the turnover of commercial capitalist is therefore, quickened. This faster rate of turnover, thereby, also reduces the labor costs and the capital consumed due to depreciation amidst purchase. The quality of wares and prices are also far easier to compare with one another in order to avoid unnecessary losses (Marx, 1992, p. 328).

The circulation time of selling is also lowered. The friction of differing turnover times of commodity trades which may cause delays in sale is overcome through the dense packing of buyers in the area. In a commercial hub, if one merchant cannot buy another's goods due to differences in the turnover period the seller can simply move onto numerous other potential buyers. The danger of the elongation of turnover time due to supply gluts is also lowered because a commodity-dealer has a larger number of customers looking to buy at all times. A thick market naturally allows for a faster substitution of one buyer by another. The bringing together of many sellers also acts as an improvement on the means of communication. Through it more information can be collected by merchant at a faster pace allowing them to adjust their prices according to market fluctuations. Larger markets also allow commercial capital to profitably sell goods in bulk quantity. This is why wholesale activity agglomerates in regional commercial hubs while smaller towns are almost exclusively composed of retail trade. As regional trading hubs develop they in turn attract a population of buyers who are not necessarily merchants but rather end-users of commodities like productive capitalists or individual consumers. As a result, circulation time shrinks even more. This is why even the retail trade of commodities which turnover more slowly like specialized machinery, jewelry, books, etc. is only profitable in larger clusters (Marx, 1991, p. 422; Fujita and Thisse, 2002, p. 93; Cronon, 1992, pp. 280-281).

The lower time of circulation also means less capital is consumed in the form of wages and depreciation. In busy commercial centers the agents of the commodity-dealer are frantically working to sell all day. The periods of idleness are reduced if not entirely eliminated. This hectic pace of business activity in larger cities in comparison to more remote locations is universally recognized. The faster pace at which he sells allows the commercial capitalist to go through more turnovers during the lifetime of furniture, buildings and equipment. Their depreciation costs then come to form a smaller portion of the costs for the commodity-dealer per turnover. Similarly, it is only in clusters of a certain density and size that highly specialized firms in circulatory functions such as legal, insurance and accounting firms can exist profitably. The existence of such highly specialized producer services further lowers circulation costs for commercial capital in larger cities (Cronon, 1992, p. 281; Sassen, 1991, 90-125). The higher demand for such producer services in central business districts leads to a surplus rate of profit. This rate of profit, however, drops off with distance to average levels as demand declines. In more remote locations such as smaller towns where demand is lacking, the rate of profit for producer service firms is below average.

I will now sum up the first argument of this section. In both purchase and sale, the impact of one commercial capital's turnover on others is greatly eliminated through agglomeration. This is all achieved through the large volume of transactions occurring in a location due to the dense agglomeration of commodity dealers there. Neither of this would be possible in sparsely populated remote locations. The dense network of buyers and sellers reduces the costs and time of circulation for commercial capital as a whole. As a result, commercial capitals in the location collectively have a faster rate of turnover. They, therefore, make a surplus profit. These surplus profits increase further to the degree the faster rate of turnover lowers the magnitude of capital required by trading capitalists for buying and selling (Marx, 1991, p. 430). However, these benefits decline with distance from the dense center of any cluster of commercial capital.

Large commercial hubs such as New York, Chicago and London have also historically seen the coalescence of industrial manufacturing within them (Konishi, 2000, pp. 1-3, 7-8; Cronon, 1991, pp. 59-63, 310-313; Engels, 2009, pp. 36-37, Levison, 2011). More generally, it is well

acknowledged that cities as market centers attract productive enterprise by reducing circulation costs (Storper and Walker, 1989, pp. 139-141; Lojkine, 1976, p. 127).

My second thesis then is that the lowering of circulation time through clustering of commercial capital has three positive reciprocal effects on production. First, the magnitude of capital required to be advanced diminishes. Second, the annual rate of exploitation of labor-power rises. Third, unnecessary pauses which increase the length of the production period are minimized. All three effects raise the profitability of productive capital. However, these benefits to productive capital wane with distance from the center of commercial capital clusters. This is because circulation time itself rises with distance from the core of a commercial hub. Therefore, what results once again are areas of surplus profits for productive capital followed by locations with average profit. At a greater distance still, below average profits obtain for production. I will now examine each of the three subpoints in turn.

My first subpoint is that agglomeration of commercial capital lowers circulation time which then decreases the amount of capital needed to be advanced for production. The conditions of surplus profitability which are generated, thereby, for productive capital induce it to agglomerate as well. This positive effect on production declines with distance from the center of commercial clusters.

The circulation period is composed of the activity of transforming commodities produced by an enterprise back into money which can then be used to buy labor-power and the means of production. The longer the time of circulation then the more money a capitalist would have to advance for production out of pocket. Otherwise, his enterprise would be shut down for the period of circulation and he would have to restart things altogether after every single turnover cycle (Marx, 1992, pp. 334-368; Harvey, 2013, pp. 287-292).

Holding all else constant, then productive enterprises located in or near commercial centers can carry on business with a smaller amount of capital than in farther out areas. The

cause of this is the lower circulation time in comparison to surrounding areas. The lower circulation time leads to a reduction in the turnover period. As a consequence, productive capital garners an above average profit in these centers. The clustering of commercial capital then induces productive capital to relocate in its vicinity because the area offers surplus profits for it as well.

As productive capital moves in, the market demand for capital goods and consumer goods expands further. This creates a positive feedback loop reinforcing the original clustering of commodity-dealers. These advantages of agglomeration, however, too decline with distance from the center. As the farther out you go the longer the circulation time becomes. Therefore, in the center, productive capital recoups surplus profits but then the profit rate declines with distance to average levels. In more remote locations still, circulation time is so long than productive capital located there makes below average returns.

The second subpoint follows from the first. The agglomeration of commercial capital by lowering the magnitude of capital which requires to be advanced increases the annual rate of exploitation of labor-power. The conditions of surplus profitability which are generated, thereby, for productive further capital induce it to agglomerate in the area. This positive effect on production, too, declines with distance from the center of a commercial hub

The reduction of circulation time lowers the turnover period for productive capital. And a faster turnover period means less money needs to be advanced in the form of wages or variable capital. This faster reflux of money assures liquidity for the operations of the enterprise. Then, holding all else constant, a productive enterprise needs to advance a smaller amount of variable capital in the center of commercial clusters than in areas at a distance from it. This results in a higher annual rate of exploitation of labor-power. More of the variable capital advanced is applied immediately in production (Marx, 1992, pp. 371-375, 381-382; Harvey, 2013, pp. 292-296).

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Conversely, as turnover time increases with distance from the center, the productive capitalist has to advance more money for wages of labor-power out of his own pocket. The result is a higher magnitude of variable capital outlay on an annual basis. The higher this amount the lesser the proportion of it which is immediately applied or consumed in the production process as labor-power. And the higher the amount which remains idle and unutilized in the creation of new surplus vale. Therefore, the annual rate of exploitation of labor-power declines with distance from the center of a commercial cluster (Marx, 1992, pp. 371-375, 381-382; Harvey, 2013, pp. 292-296).

As more productive capital agglomerates in adjacency to commercial capital, it has a positive reciprocal effect on the commercial hub by expanding the market for capital and consumer goods. Nevertheless, the turnover time for productive capital rise with distance from the center as circulation times take longer. Therefore, productive capital, in the center of the cluster makes surplus profits but at a greater distance it only receives the average returns. In still more distant location where the circulation times are lengthiest, productive capital receives below average profits.

My third subpoint is that faster circulation time of commodities in commercial centers minimizes needless pauses in production. Unnecessary delays due to economic crises, accidents, operational failures and supply shortages are a constant risk for production given market anarchy. Such situations can cause work stoppages altogether due to inventory running out which increases production time. The whole turnover period, therefore, takes for longer. Moreover, wear and tear of machinery can quicken due to a lack of running (Marx, 1992, p. 308).

The clustering of commercial capital forms a line of defense against such risks for productive capital by agglomerating a plethora of sellers. If one merchant cannot advance the goods needed for production, the firm still has a myriad of other sellers to buy from. The dense clustering improves the means of communication by acting as a node of information about market conditions. Productive capital can, therefore, act pre-emptively by stocking up inventory

in as well as access previously unknown sellers if there are supply shortages. Thus, the amount of unnecessary delays which elongate the period of production are reduced. This advantage which arises for production from commercial hubs also declines with distance from the center. As the number of trading capitalists wanes farther out from the center, the quantity of information available for productive capital to make transactions decision upon declines. Furthermore, the speed at which this information travels is also slower. Both these aspects of market information stem from the relative lack of face-to-face contact with vendors.

As a result, once again the center of commercial hubs offers irreproducible conditions of surplus profits for production. At a distance, production firms recoup average profits and more remote locations have to do with below average returns. The more productive capital tends to relocate toward the inner core of a commercial hub the further it reinforces the pattern of commercial capital agglomeration by expanding demand for its inputs and supply for its outputs. This covers the three subpoints which comprise the second argument of this section.

I will now move onto to my third contribution. Public investment and policies can promote or inhibit the agglomeration of commercial capital in a locality. Public infrastructure projects such as railways, canals, ports, roads, internet and phone lines cheapen and quicken the means of communication. This lowers the costs and time of circulation. However, the impact of such public works is uneven because one location by definition always benefits more from infrastructure in comparison to others at a greater distance from it. Therefore, areas which do not benefit as much or at all from the public investment become relatively more expensive in terms of circulation costs and have comparably slower circulation times. Collectively, public infrastructure forms a subsidy for commercial capital, if the taxes it pays for it are outstripped by lower circulation costs and time. Such public works are, therefore, an in-kind subsidy made out to capital from the wages of workers. The literature on this topic is the same as that on the agglomeration benefits derived from public investment in transport. This is because neoclassical microeconomics fails to differentiate between transport occurs during production and circulation of commodities (Chatman and Noland, 2011; Eberts and McMillen, 1999, p. 1487; Gramlich, 1994).

Section 5.4 – Surplus Profits from Financial Capital Agglomeration

In this section, I cover how the agglomeration of financial capital generates economic benefits. These benefits to intermediaries fall off with distance from the center. Consequently, surplus profits obtain in the center of a firm but with distance firms recoup only the average profits. And at a greater distance still the profit levels are below-normal.

There are four channels through which financial agglomeration generates surplus profits. First, the geographic concentration of production and circulation of commodities generates a higher demand for credit and financial services in the central business district of a cluster.

Second, as intermediaries concentrate in the area, it becomes a nerve center for information gathering on the economy as a whole. This further attracts in financial institutions and idle funds seeking investment. This positive feedback loop develops a virtuous circle expanding the agglomeration.

Third and in turn, financial clustering also has a reciprocal positive impact on production and commodity-dealing. As the agglomeration grows so do the quantity of credit and financial services along with access to information. This induces productive and commercial capital to move into the cluster as well. To the degree, these capitals move in they further reinforce the cluster by expanding the demand for finance.

Fourth, the state can augment or diminish financial agglomerations through two means. First, through public investment in infrastructure which furthers the means of communication. Second, the state through its taxational and subsidy policies can create a safe haven for financial agglomeration or remove an area from being as such.

Before I begin two caveats are in order. First, by financial capital I mean all firms such which provide services and act as intermediaries in relation to money and loanable money

capital. What I have in mind are financial institutions which act as intermediaries in the credit and capital markets by providing loanable capital and services. Examples are money-dealers, commercial and investment banks, shadow banks which extend credit, financial brokers, stock and commodity exchanges, etc. (Lapavitsas, 2013, pp. 123-132, 133-137). This wording should not be conflated with Hilferding's category of 'Finance Capital' as the union of banking and industrial capital (Hilferding, 2006, pp. 223-226).

Second, I do not mean this to be a deterministic account of how exactly a hierarchy of financial centers in history happens to occur in regions. History is full of accidents and open-endedness not least because of state-making and war-making. The point here is to only show the general needs for and effects of financial agglomeration.

I begin now with the first point. We have already seen in the preceding section, that commerce tends to agglomerate in certain areas. Such market cities are distinguished by wholesale activity of trading capital looking to buy and sell goods. Nevertheless, the circulation process juxtaposes commodities on one side and money on the other. The greater volume of transactions in the center of commercial hubs then engenders greater demand for money-dealing services and credit. Money-dealing services lower the circulation costs and time attached to the technical operations of money. Credit, on the other hand, helps lubricate the friction of varying turnover times by lowering the time required for circulation of commodities. It also spurs investment by allocating idle capital and endogenously creating new loanable money capital. (Marx, 1991, pp. 431-439, 566; Cooley, 1894, pp. 91- 100; Lapavitsas, 2013, 109-110, 112-118; Harvey, 2013, pp. 231-232). As Kindleberger writes:

The geographical pattern of banking is linked to commerce. Cities are typically located at a break in transport.... London, Paris, Cologne, Rome, Montreal lie on the first ford or shallow part of major rivers up from the sea. Berlin lay at the point of transshipment of bulk cargos… Lyons and Frankfurt were historic fair towns on international caravan trails…the coming of the railroad…changed…the location of some financial centers, and only timely action by other communities to influence the shape of the railroad network prevented other adverse changes (Kindleberger, 1973, pp. 9-10).

The higher demand in the center of a commercial hub for both offers surplus profits for money-dealers and credit intermediaries, pulling them into the center of the cluster. Thus, along with commodity-dealers there crop up money-dealers and lenders in a central business district. However, as the volume of transactions wanes with distance from the center so does the demand for money-dealing services and credit. This creates again a declining profitability gradient where in the center surplus profits obtain for money-dealer and lenders. However, with distance profits decline to the average level. In more remote locations only below average profits can be recouped for these two intermediary services.

This directly leads to the second channel of surplus profitability through financial agglomeration. As intermediaries concentrate in the area, it becomes a central node for gathering information on economic conditions. The core of the cluster serves offers the greatest volume of information at the fastest speeds. The discernment of fluctuations in the rate of profit between sectors is best carried out through such a nerve center. And this is an essential need for lending institutions in order to allocate credit in a knowledgeable manner (Itoh and Lapavitsas, 1997, pp. 91, 117-120; Harvey, 2013, p. 231; Lapavitsas, 2013, pp. 121-123; Marx, 1991, pp. 298, 566).

The need for access to information on market developments is, however, not limited to credit intermediaries. Financial institutions, more broadly, seek knowledge of economic conditions in order to remain competitive with one another. Investment banks and institutional investors which operate in capital markets and allocate idle capital also need to stay abreast with market fluctuations. As a result, capital market institutions also are induced into locating within central business districts. Spatial proximity to other intermediary firms here serves as an improvement of the means of communication (Kindleberger, 1973, p. 86; Lapavitsas, 2013, pp. 110, 133-137).

Idle capital from surrounding regions which seeks passive investment follows the credit and capital market intermediaries into the agglomeration. And the financial cluster now begins

to serve as a collecting point for the 'common capital of the class' (Marx, 1991, pp. 490-491; Harvey, 2013, pp. 192-193). As a result, this is where firms looking for loans and equity investment also coalesce. The financial cluster now serves as the geographic point where the supply of idle funds meets the demand for investment.

The largest of such financial hubs end up becoming regional and international financial centers which centralize trading of securities and commodities through stock exchanges and commodity future exchanges. This has been the case with New York as the premier financial hub of the country since its inception and Chicago since the late nineteenth century which served as a gateway city to the frontier. Both acted as point of the pooling and reallocation of capital (Cronon, 1992, pp. 301-309).

Although, today New York City's dominance in terms of stock trading is indisputable, Chicago still continues to serve as the center for commodity futures trading through the Chicago Board of Trade which first opened in 1848 (Cronon, 1992, pp. 120-123). Similarly, in the second half of the nineteenth century, London and Paris were instrumental in financing the development of railways within their own country as well as internationally. They served as the only international centers capable of financing such megaprojects while simultaneously also having stock markets. Other financial centers could not do both at once due to a lack of idle funds and information (Cassis, 2006, p. 55). Today, of course, London along with New York and Tokyo continue to serve as the premier financial hubs of the world market (Sassen,1991).

I will now sum up my second point. As intermediaries cluster into a commercial hub it become a central point for gathering information about the economy. This attracts more financial intermediaries into the area. Subsequently, idle money capital requiring intermediation flows into the cluster. It, thereby, becomes a regional locus for accessing finance. This series of effects act as positive feedback loops and become a self-reinforcing cycle. The more financial firms which move in, the more the speed and volume of information increase as well as the quantity of idle capital seeking investment. Once this self-reinforcing cycle has been effected, financial

agglomeration becomes independent of the original historical accidents and economic factors which caused it (Bourgain and Pieretti, 2006).

The pace and quantity of information, however, decline for financial intermediaries with distance from the central business district which is the densest point of the cluster. As a result, the same profit gradient come into existence. There are surplus profits in the core followed by average profits at a distance and below average returns in farther flung areas.

My third point is that financial clusters have a positive reciprocal impact on industrial and commercial capital. This is because of the reduction of three factors. First, because of better access to intermediary services for non-financial establishments. Second, non-financial firms through proximity to financial establishments have access to greater knowledge of economic developments at rapid speeds. Both these aspects reduce the costs and time of circulation for non-financials Third, non-financial firms located within the cluster also have access to greater quantity of credit. This is, especially, true of lending which requires intense monitoring of the borrower as is the case in the venture capital industry today which finances start-ups (Chen, et. al, 2009, p. 92; Cumming and Dai, 2010, pp. 362-363, 378; Moretti, 2013, pp. 136-137). To the degree, such advantages induce non-financial capital like law and accounting firms to locate into the cluster it further reinforces the financial hub by expanding the demand for intermediary services (Sassen, 1991, 90-125).

Finally, governments can promote or inhibit financial agglomeration through two ways. First, through improving the means of communication with new transport and communication link which lower circulation time and costs. A contemporary example is the installation of fiber optic networks in central business districts to improve internet speeds. If the taxes paid by financial firms for such projects are less than the benefit received this acts as a boon to their profitability. To the degree such projects are paid from wages they are an in-kind subsidy made out to financial capital by labor.

Second, government policies at both the international and domestic level can promote financial agglomeration through geographically uneven through taxation of financial assets and capital flows. This may incentivize financial firms to move into and coalesce into one region versus others (Aalbers, 2017). The final result is higher profitability through less or nonexistent tax payments. To the degree such policies impact non-financial firms, it can also induce them into clustering their headquarters and certain branches into specific regions.

In both ways government policies can promote unevenness of profitability for financial capital and, thereby, channel it into certain clusters. This is because more investment is made in infrastructure in one place in comparison to others or a specific country is allowed to act as a tax haven in comparison to others. This is the case with London in the U.K. today in comparison to the E.U.

<u>Section 5.5 - Surplus Profits from Labor Pooling</u>

In this section, I discuss how the pooling of labor within urban areas benefits functioning capital as a whole. There are four distinct agglomeration economies derived from the dense concentration of labor-power in one place. First, the circulation costs and time of hiring as well as replacing labor-power are reduced. Second, skills within the labor-force are transferred far more rapidly and in greater quantities through cooperative labor within and amongst firms. The result is a higher skilled workforce with greater specialization. Third, labor-pooling creates a vast market for personal services and consumer items creating miniature commercial centers which dot urban areas. This serves as a profitable outlet for capital. Fourth, governments further extend the benefits of labor-pooling for capital by providing access to public education and public transport infrastructure.

These benefits of labor-pooling are highest in the center of a conurbation and decline with distance from it as the overall labor pool shrinks. The result is the same profit gradient with surplus profits in the center which decline to average levels with distance. Finally, remote and sparsely populated areas make a below average return.

I will begin now with the first point. Labor-pooling decrease the circulation time and costs of hiring workers in an agglomeration. To begin with, the value of labor-power is bought not for a lifetime but over short periods of time. In order to be replenished it needs to be continuously repurchased. Moreover, each job requires a specific set of skills and experience (Marx, 1990, pp. 270-80).

This means if one worker leaves or is fired a substitution needs to be found. The hiring of workers on the labor-market then entails its own set of circulation cost and time, just like other commodities. The longer the time it requires to hire a worker, the greater the circulation time and circulation costs for the purchase of a unit of labor-power that are required. The longer circulation time will directly elongate the turnover period in any case, but it can also lead to

suspension of operations altogether due to labor shortages. To avoid this, companies might have to hire labor-power without the right skill-set or work experience. As a result, the lower level of skill will likely lower labor productivity and efficiency in circulation. A company, therefore, might look to layoff and rehire for the position until finally a laborer who can fulfill the desiderata is found. All this, however, only further adds to circulation costs and circulation time. Large concentrations of workers allow for faster substitution of one skilled worker by another. They also allow for better 'matching' of the skill set of workers with job requirements. This reduces the probability of the firm firing the worker as well as the worker leaving the firm for a more suitable occupations This is then how the first agglomeration economy results from the pooling of labor-power. It is referred to as labor market thickness (Rosenthal and Strange, 2004, pp. 2152-2154; Bleakley and Lin, 2012, p. 101, Moretti, 2013, p. 129).[35] This effect becomes reinforcing because the more firms which move to an area due to lower circulation costs and time of buying labor-power, the more the labor pool grows. As a result, costs and time of hiring workers are further curtailed.

In any cluster, the density of the laboring population declines with distance from its center. As a result, there is less of a labor-pool available in comparison to the center. The circulation time and costs of hiring workers increase with distance from the center. The benefits which, therefore, stem from labor-pooling become attenuated with distance from the center of a cluster. As a result, the same profit gradient forms of surplus profits in the center which fall to average levels with distance and in more remote sparsely populated locations firm receive a below-average return.

The second effect of labor-pooling is to increase the general skill level of workers. Cooperation in the labor process allows for the transfer of accumulated knowledge and skill from one worker to another through on the spot practical study and guidance. This can happen within

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[35] An interesting exception to this rule is the labor market for college graduates in the IT and computer industry of California. Their labor market thickness seems to increase employee turnover. Why exactly this is the case might have to do with the nature of the sector as well as California law. Further research is required (Fallick, Fleischman and Rebitzer, 2006).

a single firm or among multiple firms working on the same project. Either way, the technical division of labor through cooperation boosts the productivity of workers. Nevertheless, there are limits to how much skill can be passed on through cooperation. And this limit is the size of the workforce itself in an urban area. The higher the population density of workers, the larger is the pool of skill and experience accumulated in one place. And the more workers who come into contact with one another as they leave jobs and find new ones. Skills learned in previous employments are passed down to others in new ones. Therefore, the divorce between urban and agrarian areas provides a social division of labor which densely pools labor-power in one place. This in turn boosts skills and productivity in the cooperative labor process. The higher level of skill also leads to greater specialization in various lines of work, creating, thereby, a more diverse labor force. With urbanization this division only increases further creating thicker labor market where more skills are transferred from workers at greater speeds (Marx, 1990, pp. 439-454, 470-480; Rosenthal and Strange, 2004, pp. 2134-2136; Combes and Gobillon, 2015, pp. 278-282; Diamond, 2016, Henderson, 2003). Marx emphasized the favorable role played by the dense accumulation of workers in one place, writing:

'Just as a certain number of simultaneously employed workers is the material pre-condition for the division of labor within manufacture, so the number and density of population…is a precondition for the division of labor in society' (Marx, 1990, pp. 472-473).

There is a wide array of neoclassical microeconomic literature which has studied how the effect of labor pooling is to increase the skill-set of the workforce through positive 'knowledge spillovers' and 'human externalities' (Duranton, 2004, pp. 2065-2067,2077-2081). Firms which are highly dependent on patent innovation such as in the IT industry, especially, tend to cluster together (Jaffe, Trajtenberg and Henderson, 1993; Feldman, 2000, pp. 386-388, Carlino and Kerr, 2015; Fallick, Fleischman and Rebitzer, 2006, Henderson, 2003, pp. 24-25). Research from establishment level dataset of manufacturing plants also reinforces the conclusion that the pooling of labor increases productivity. And areas with a higher skilled workforce also tend to have a wage premium for workers (Moretti, 2004b, pp. 681-683; Glaeser and Mare, 2001; Rosenthal and Strange, 2004, p. 2140; Diamond, 2016). Similarly, there are also studies

corroborating that agglomeration of financial managers also boosts their skill-set and fund performance (Christoffersen and Sarkissian, 2009).

The higher level of skill due to the pooling of labor becomes a self-reinforcing effect. It attracts more companies to the area which, thereby, further grows the labor pool. On the other hand, newer clusters suffer from a dearth of accumulated knowledge which creates a disadvantage for them when it comes to attracting more firms (Henderson, 2003, pp. 20- 21; Glaeser, 1999).

It also then follows that as the labor pool shrinks with distance from the center of a cluster so does the level of skill of the workforce. This means productivity and specialization found in the interior of a cluster drop in levels with distance from it. As a result, the same profit gradient forms as with other patterns of agglomeration. The center witnesses surplus profitability which then declines to average levels with distance Sparsely populated hinterlands form the other extreme here where below average profits obtain.

Dense pools of labor also concentrate demand for an array of retail and personal services which create profitable outlets for capital. This is the third benefit which derives from the concentration of workers. Urban landscapes are dotted with retail clusters. These can be loosely characterized into a three-tier hierarchy according to the perishability of the commodities sold. Generally, the more durable the commodity which is being vended the greater the need for retail to cluster in high density populations. This is because the retailing of goods which take a long-time to consume is, otherwise, unlucrative in areas of lower population density. First then come the main streets which are composed of local convenience stores, cafes, bars and restaurants. Here almost exclusively food for daily or weekly consumption is what is sold. Other personal services such as barbers here are also consumed on the spot. In small towns or at the outskirts of a conurbation this is all what is available. Next in the hierarchy come strip malls and shopping malls where more durable items such as clothes, electronic appliances, toys, etc. are the main commodities sold. These require a higher level of population density and, therefore, are located

in suburbs or neighborhoods within a city. Finally, an entire commercial district or two exist in the center of a large metropolis where populations from dozens of miles away come to shop (Schiller, 2001, pp. 65-79, 80-91). In all three cases, the pooling of labor in the region shortens the circulation time and, thereby, vending costs for retail goods and services consumed by labor-power. Marx writes in this regard:

All branches of production which, owing to the nature of their product, are oriented principally to local outlets, such as breweries, thus develop to their largest dimensions in major centers of population (Marx, 1992, p. 329).

Labor-pooling by attracting in retail goods and services expands the number of jobs in the area. This further expands the labor-pool becoming a self-reinforcing cycle. Here a profit gradient here too arises as circulation times and costs rise with distance from the largest of retail clusters. Retail stores in the commercial center will make surplus profits. However, profits will drop with distance as population density of workers declines leading to a decline in demand. Moreover, circulation times in retail grow far more rapidly with distance. This partly reflects the pedestrian nature of traffic. Shopping in-person always requires some amount of walking. As a result, shops even a few blocks away from the center of a commercial district might have much longer circulation times because of far less visits (Schiller, 2001, p. 30). The entire turnover period is, consequently, lengthened.

My fourth point is that governments can further extend the benefits of labor-pooling for an agglomeration by investing in public education and public transport and public education. infrastructure. The first policy increases the size of the labor-pool available for capital to draw upon in the center of a cluster (Chatman and Noland, 2011). The second policy increases the skill-set of the workforce. As much of these fiscal expenditures are shouldered by workers in the form of taxes they act as an in kind-subsidy made out to capital. Interregional dynamics are also at play as cities such as New York, Washington D.C. and L.A. collect workers which have been educated and trained elsewhere, using taxes from other states. What then occurs is a 'brain drain' where

taxpayers in smaller cities and towns subsidize the costs for attaining skills utilized by firms in 'superstar cities' (Moretti, 2004a; Diamond, 2016, Florida, 2002a; Florida 2018).

5.6 – Conclusion

Before making an argument as to how land price is formed in freehold conditions I needed to analyze the sources from which it emerges. This is what I have done in this chapter. The preceding four sections analyzed how the clustering of production, commerce, finance and labor-pooling produced benefits through dense proximity. These benefits become attenuated as distance grows from the center of a cluster, thus, forming a profit gradient. Surplus profits accrue at the center of the cluster which then drop to average levels with growing distance from it. In the case of each type of functioning capital I have tried to show how agglomeration becomes a self-reinforcing cycle. Moreover, the coalescence of specific types of capital and labor-pooling benefit also other types of functioning capital in the locality.

Agglomeration is the spatial form that the social division of labor takes. Profitability of independent functioning capitals is maximized through proximity. It is not an outcome of the technical division of labor within a single unit of functioning capital. The economic benefits of clustering cannot be, therefore, reduced to higher levels of capital intensity or the rising organic composition of capital. A lack of understanding of this aspect is the major pitfall of urban rent theory when it comes to ascertaining the sources of land price and ground-rent. The other major pitfall is, of course, hypothesizing a universal existence of a landed class which I will show in the next chapter to be erroneous.

Through this chapter I have tried to account for agglomeration in a political economy framework in order to fix the fourth analytical gap in urban rent literature. In closing I would like to make two additional observations in regard to government policies which act as an in-kind subsidy to capital agglomeration.

First, there also exist diseconomies of agglomeration in the urban environment. Clustering of any type generally increases pollution, congestion, noise-levels, crime and the spread of disease. Personal travel and transportation times increase. With them so does the risk

of traffic accidents. There is also more property loss due to crime. As a result, insurance costs for both moveable and real property rise. Moreover, labor-power is physically weakened due to far higher levels of environmental and noise pollution in comparison to the sparsely populated countryside. Population density also heightens the spread of all sorts of diseases. This translates to lower productivity and also more missed days of work creating output losses. This increases circulation time and costs as well as production time and costs. The turnover of capital, thereby, is not only made more expensive but is also slower. The diseconomies generated, thereby, offset the gains made through agglomeration to varying degrees. To counter these diseconomies, governments expend money on public infrastructure and regulations for sanitary living. Public sewage and water infrastructure and medical facilities along with environmental regulations all reduce the diseconomies of agglomeration. The role here of urban planning, civil engineering and architecture as a science also cannot be overestimated. The portion of the tax burden of public infrastructure and land-use regulation shouldered by working class then acts as in-kind subsidy to capital as a whole. Moreover, capital freely appropriates all scientific advances which reduce the diseconomies of scale as well (Kahn, 2010, pp. 351-353; Higgins, et. al., pp. 186-187; Wheeler, 2003; Eberts and McMillen, 1999).

Second, public subsidies provided to capital for specific research and development projects through public-private partnerships and universities may also boost capital agglomeration for various industries in a locality (Feldman, 2000, p. 386; Feldman and Lichtenberg, 1997). Working-class taxes also in this case become a free gift to capital.

Chapter 6: Land price, Ground Rent & Realtor's Profits

Section 6.1 - Introduction

In chapter four, I ignored the role of land price in how realtor' capital makes the average rate of profit through intermediation of commercial property. In this chapter, I move to a higher level of complexity and show how the realtor makes the average rate of profit through land. My argument is made in three steps.

In section 6.2, I show urban land price from current-use is a function of the profit gradient formed through the declining economies of agglomeration with distance from the center. Capital flows into areas of surplus profitability and out of areas of below average profitability. The profit gradient, therefore, leads to a land price gradient. Areas with surplus profits have a positive land price from current-use. In locations with average profits, land price is equal to zero from current-use. In locations, with below average profits land has a negative price from current-usage.

In 6.3, I describe how land price from a current-use yields ground-rent when the property is leased. To simplify matters, I assume that the capitalization rate is equal to the average rate of interest.

In 6.4, I analyze how realtor's capital carries out land conversion towards the alternate-use with the highest land price. The realtor buys land at its wholesale price for development and sells land at the retail price derived from the alternate-use. Once the development is sold the alternate-use becomes the current-use to which land is put under. The point of land-use transformation initiated by the realtor is always to accord land to the use with the highest units of surplus profits. The realtor in turn makes a commercial profit of the average amount from the intermediation of land.

I conclude the chapter with a summary of the argument in 6.5. Through this chapter, I provide an answer to the fifth analytical gap in the literature which derives from the observation that land prices decline with distance from urban centers.

Before I begin, I would like to clarify that this chapter only analyzes land price and ground-rent drawn from capitalist use in freehold. I only consider here land price which is derived from commercial uses made by functioning capital competing for profit. The sources of realtor's profits derived from the intermediation of commercial properties for residential-use are analyzed subsequently in chapter seven.

Section 6.2 – Urban Land Price From Current-Use In Freehold

In this section I present the freehold model of urban land price drawn from current land-use. I ignore the case of the land price paid to develop a plot for a new use. The discussion is broken down into eight points.

First, I discuss how the decline in land prices with distance from the center is linked to decreasing agglomeration economies. This tells us that urban land price is a function of the rate of profit. Next, I look to formalize this relationship.

Therefore, my second point is to discuss the four assumptions which undergird the model. The first is the absence of a landed class. The second is the free flow of capital. Third, I assume declining rates of profit with distance from the center of an agglomeration which create areas of surplus, average and below-average profitability. The fourth assumption is that equilibrium of supply and demand holds in the economy with all goods and services selling at their price of production.

Third, I show that as a consequence, capital flows into areas of surplus profitability and flows out of areas of below average profitability. In areas of surplus profitability, capital flows in and land price rises until the higher cost outlays counterbalances surplus profits. In freehold, surplus profits are retained by the owner-occupiers. But the higher costs of land eliminate surplus profitability and bring back the rate of profit to the average level. In areas of below average profitability, capital flows out and land prices become negative. As a result, commercial property sells at a discount to its price of production. This compensates for the below average rate of profit by lowering the capital outlay required, thereby, bringing the rate of profit back up to the average rate. The profit gradient formed by declining agglomeration economies in turn generates the land price gradient.

Fourth, I discuss the main implications of the model that land price aids in the equalization of the rate of profit across space. It is an indicator of the relative profitability of a current land-use in an area. The positive land price derived from areas of surplus profitability is balanced out by the negative land price derived from areas of below average profitability. Negative land price in depressed areas is the mirror image of positive land prices in booming centers. Holding all else constant, land price in freehold derived from capitalist use is cumulatively zero.

Fifth, I contrast this freehold model of land price to how land price arises from rack rent leaseholds of Marx's day. How land price arises is qualitatively different in freehold and this results in quantitative difference in the magnitude of land price as well.

Sixth, I point out that circulation costs incurred on vacant land create the image its price has increased when it is sold. This is, however, an illusion and should not be conflated with land price derived from the relative profitability of current-use. These circulation costs of land are paid for through commercial profit of the realtor made upon buildings.

Seventh, I outline how the channel through which interest rate fluctuations impact the sale market for owner-occupation is distinct to the rental market. A change in the rate of interest can cause a deviation here between the direct market price of land and its land price.

Eighth, I show how this freehold model of land price is consistent with the literature on land price taxation.

I begin now with my first point. Studies have shown repeatedly that land prices decline from the city center. There is debate as to the rate of decline or the sharpness with which land prices drop off. Moreover, controversy also exists regarding the impact of land parcel size on land price. Cities also may be of a polycentric nature with multiple center. This is usually due to them having a commercial district as well as a central business district. Additionally, a city of could have multiple central business districts and commercial districts. In either case, there is a broad

consensus that land prices decline with distance from city centers. The spatial form of urban land prices can be imagined as a range of mountains which are surrounded by shorter peaks which fall in height towards sea-level (Hodge, Sands and Skidmore, 2017; Colwell and Munneke, 1995, 2003, 2009; Colwell and Stirmans, 1980; Colwell and Stirmans, 1993; Brownstone and Vany, 1991; McMillen, 1996; Ecker and Isakson, 2005; Clapp, Cohen and Lindenthal, 2021, pp. 1-5, 5-9, 40; Nichols, Oliner and Mulhall, 2012, pp. 17-18; Albouy and Ehrlich, 2014, pp. 10-14; Barr, Smith and Kulkarni, 2018, p. 6; Haughwout, Orr and Bedoll, 2008, pp. 2-6).

In urban economics, this observation is referred to as the rent gradient after Alonso's bid-rent spatial equilibrium model (Alonso, 1964). The microeconomic foundations of this model have been subject to criticism (Martin and Sunley, 1996; Dymski, 1996; Harvey, 2009, pp. 162-178; Storper and Walker, 1989, pp. 3-4, 34-35, 52-53, 70-73; Massey, 1973). It is, however, not sufficient to simply criticize the microeconomic assumptions underlying this model. An alternative explanation for the urban land price gradient as an empirical regularity needs to be provided by political economy. Dropping land prices with distance from city centers mirrors the declining economies of agglomeration. This suggests that the price of land from current-use is a function of declining rate of profit as the benefits of agglomeration become attenuated. Land prices are a product of unevenness of profitability which results from clustering. This is what I seek to capture in the freehold model of urban land price I present below.

My model is based on four assumptions. The first assumption is that there is no landed class as postulated in the Classical Political Economy and Marxian theories of ground-rent. As I said in my discussion of the first analytical lacuna, these models were based on the historically specific tenurial system of short-term rack-rent leaseholds. Landed property acted then as a barrier to the investment of capital. This served as the first and foremost necessary condition for a distinct class of landlords to be able to charge a ground-rent. And the capitalization of ground-rent yielded a land price. Land price here derived from the blockage of capital investment (Marx, 1991, p 762). In contrast, today freehold tenure is what dominates the U.S. commercial property market. Functioning capitalists are not obstructed from investing in land. Which means the

ownership of land is combined with the ownership of capital. Renting is a choice and not an unavoidable necessity. Consequently, land price in freehold is derived from the flow of capital into land. This is precisely the opposite case as to the form of tenure which Smith, Ricardo and Marx had in mind. The flow of capital into land, rather than its blockage, is what should be the underlying assumption for analyzing land price in freehold.

My second assumption for the model is the free flow of capital. This is an extension of the concept of the equalization of the rate of profit through which values are turned into prices of production (Marx, 1991, pp. 254-265). The corollary of the free flow of capital across sectors is its unhindered movement across space. If land price is a function of the rate of profit, then capital cannot be blocked from fleeing areas of lower returns or channeling into areas where surplus profits obtain. Otherwise, it would be hard to make sense of the urban land price gradient because land price would then not be an indicator of relative profitability in an area. Relative profitability of a locality can only be determined in relation to the rest of the national economy. Nonetheless, my model is of a closed economy where the transfer of capital across space is demarcated by sovereign political boundaries. I do not consider the impact of capital flows across nations and their impacts on land-values.

The third assumption is that declining agglomeration economies create three zones of surplus, average and below average profits across all urban areas. I justified this assumption in detail in chapter five. All the urban areas of an economy then in combination create a weighted average rate of profit. Nevertheless, this still means all clusters can be compartmentalized into three tiers according to their relative profitability. First come their centers where the rate of profit is above average due to agglomeration economies being at their peak. Then with rising distance from the center of a cluster, the rate of profit falls to average levels. Finally, farther out areas where agglomeration economies are at their weakest yield below -average profits.

The total supply of land in each of these three zones of relative profitability is then limited at any given point in time. Nevertheless, agglomeration economies are always in flux. Capital

from a given industry will be increasingly clustering in one area while dispersing from another. Therefore, certain cities such as New York may boast very large and growing areas of surplus profitability while others like Detroit can have a much smaller and dwindling area in the city center where surplus profits obtain.

The assumption of the free flow of capital in combination with the three zones of relative profitability means my model holds across all urban sectors. Functioning capitals engaged in production, commodity-dealing and finance all exist within these three zones of profit.

My fourth assumption is that there is equilibrium throughout the economy and supply meets demand in all sectors. Therefore, all goods and services are sold at their price of production and no sector sees surplus profits. By ignoring market imbalances within a sector, I am able to hone in on the real price of land which derives from locational conditions. Otherwise, a lack of supply can create surplus profits for all firms throughout an industry regardless of location. In such an instance even the most disadvantaged areas in terms of agglomeration economies could witness temporary surplus profits. Such surplus profits will only disappear once supply of a given land-use expands to catch up with demand. Alternatively, even the best located areas in terms of agglomeration economies may make a below average profit due to a sudden downward shift in demand for a particular good or service. I want to ignore such cases of sectoral disequilibria, which lead market prices for a land-use to deviate from its real price. This allows me to show how declining land prices with distance from the center are a function of the negative profit gradient formed by agglomeration. The negative profit gradient generates the real prices of land from current-use which exist at equilibrium.

I will now move to the third point. Given these four assumptions, land price from current-use comes to arise in in the following manner. Capital flows into locations of surplus profitability and out of areas of below average profitability. Areas with surplus profits gain a positive land price. In areas with average profits, land price is equal to zero. And locations with below average profits suffer a negative price. The profit gradient, thereby, creates the land price gradient.

In areas of surplus profitability, the inflow of capital leads to the demand for commercial property outstripping its supply. As land is a rivalrous good a bidding process is ignited amongst functioning capitals. The current landowner then looks to sell to the highest bidder. And the maximum bid each functioning capitalist can make is what still leaves an average rate of profit.

Consequently, land price rises until the higher cost outlay for it, counterbalance the units of surplus profits which accrue to the new owner-occupying firm. This restores the average rate of profit. The capital gains in land act as a counterweight to surplus profitability. In freehold, capitalists as owner occupiers of land retain their surplus profits. However, surplus profitability is eliminated by a rise in land price.

The price of commercial property, therefore, rises above the price of production of buildings. This additional price increment is owing to the capital gains generated by the bidding process amongst competing enterprises for a location. Land, thereby, gains a positive value and forms an additional component of the property's price besides buildings. Positive urban land price is the result of irreproducible advantages of agglomeration which generate zones of surplus profitability.

The rise in land price of the commercial property allows the current owner-occupying firms to pocket the capital gains through its sale. And other owner-occupying firms in the area witness land gains in their commercial property. But through this process the cost outlays on land rise for functioning capital which is moving into the area. This works to equalize the rate of profit across the economy as a whole.

Next comes the area at a distance from the center of a cluster where average profits obtain from current use. Here the supply of commercial property equals its demand. The current stock of buildings will continue to sell at the price of production, minus any depreciation. Land will have a zero price.

In locations of below average profitability, capital flows out towards areas of average and surplus profitability. Functioning capital is not willing to pay the price of production for buildings here as that would leave it with a below-average return. So, the supply of commercial properties on sale outstrips the demand for them. Commercial property, therefore, sells at a discount to its price of production. It is devalued because of locational disadvantages. These locational disadvantages generate a negative land price. Land price continues to plummet until the lower cost outlay on commercial property compensate for the deficit units of profit. Average profitability is restored because each unit of missing or deficient profits generates a proportionately negative land price. This cuts back cost outlays for working capital. The ratio of the mass of profits to cost outlays, thereby comes to equal the average rate of profit.

The decline in land price of the commercial property means current owner-occupiers suffer capital losses through sale. And other owner-occupying firms in the area witness a loss in the value of their commercial property. But the cost outlay on land for incoming firms, thereby, declines which restores average profitability. However, once the negative land-price comes to equal the price of production of the building then the commercial property will have a total price of zero and it will shut down.

In practice, the negative land price appears as a building selling below its replacement or construction costs. Moreover, due to environmental clean-up costs enforced by the state on owners a commercial property can come to have a purely negative value below zero. In other words, the current owner would have to pay a prospective buyer the clean-up costs in order for them to acquire an otherwise worthless property (Huber, 2020). I ignore the impact of such state imposed cleanup costs here.

The three zones of positive, zero and negative land price gradient then are a function of the negative profit rate gradient. Through impacting cost outlays, land price restores average profit across urban clusters. Otherwise, there would continue to exist three areas of surplus,

average and below-average profitability. In freehold, the price of land derives from the units of surplus / deficit profits accruing at average rate of profit. Put algebraically:

(1) $\quad L = \dfrac{s}{r}$

Where the price of land (L) from its current-use is equal to the units of surplus or deficit profits ($\pm$ s) accruing at the average rate of profit (r). At any point in time this is the real price of land around which the direct market prices of land fluctuate. Holding all else constant, positive land prices which accrue from surplus profits must equal negative land prices that derive from deficient profits. Cumulatively, land price then of all commercial enterprises is a zero-sum game.

I want to differentiate here between the surplus rate of profit and units of surplus profit. Within the zone of above-average profits where land-price is positive, land is awarded to the current-use with the highest units of surplus profits. This means land need not be accorded always to the firm with the highest rate of profit. If two firms have the identical surplus rate of profit, the firm accruing the higher units of surplus profits will be able to outbid the other. Similarly, a firm which accrues higher units of surplus profits will be able to outbid its competitors if they have a higher rate of profit but generate lower units of surplus profits. This will owe to the differing cost outlays of the two respective firms upon which the rate of profit is reckoned. Land within the zone of above-average profitability is, therefore, awarded to the firm which most intensively accrues surplus units of profit over a given square area. The zone of above average profits can then be imagined as having at its core the greatest concentration of units of surplus profits. And this density of the units of surplus profits declines with extension outwards from the core towards the zone of average profits. Positive land-price is still a function of the profit rate gradient, but its exact determination depends on the units of surplus profits and not the rate.

I will now move onto my fourth point of discussing the implications of the model. Land price of a commercial property is not a passive residual price but rather an active indicator of the location's relative profitability under current-usage vis-à-vis other potential uses. The more

profitable the current-use of land the higher will its value be (Ball, Lizieri and MacGregor, 2001, pp. 65-66).

Land prices from current-use also play a pivotal role in the equalization of the rate of profit. However, the tendency for the equalization of profit rates works differently for land in comparison to sectors. Now, in both cases where there are surplus profits capital will flow in, and where there are below average profits capital will flow out. But this is where the affinity ends.

In the case of a sector, the produced goods and services need to be selling above their price of production for there to be surplus profits. The cause of surplus profits in a sector is the demand outstripping the supply of produced commodities. The influx of capital decreases their price by expanding the quantity of supply. And an outflux of capital will increase their price by lowering the quantity of supply. By lowering or raising the price of produced commodities, profit rates adjust towards parity. The price of produced commodities always moves inversely to the rise or decline of investment in a sector. The same holds for commercial capital and financial services. If the demand for them outstrips supply, surplus profits will obtain. Therefore, capital will stream in until supply catches up with demand and equilibrium is reached.

The case of land is different for two reasons. First, land is unproduced and altogether an irreproducible condition necessary for all activity. Second, land as an input for functioning capital is not homogeneous. The rate of profit across land is always uneven due to agglomeration economies. The advantages of clustering wane with distance which makes them irreproducible. This creates areas of surplus, average and below-average profits. These three zones of relative profitability exist along with the equilibrium of supply and demand across sectors.

Capital cannot change this unevenness of profitability across space. Capital can only invest more in land where the rate of profit is above average and less in land where the rate of profit is below average. The three zones of profitability, thereby, ignite bidding competition between functioning capitals. This in turn leads to higher cost outlays on land in areas of surplus

profitability. The resulting influx of capital where there are surplus profits raises the price of land above zero. Similarly, the outflux of capital where there are below average profits lowers the price of land below zero.

The price of land, therefore, moves directly with the rise or decline of investment in it. This is the exact opposite of produced commodities. Land, on the other hand, is an unproduced commodity of heterogeneous quality. The price of land by rising or declining, increases or decreases cost outlays upon which total profit is reckoned. It, thereby, counteracts the surplus or deficit units of profits. This equalizes profit rates across space.

The tendency for the equalization of profits across space does not mean that all functioning capitalists at all times make only average profit. Where agglomeration economies are generating a rise in surplus profitability, owner-occupying firms make capital gains through selling their commercial property. And owner-occupiers who do not sell their property also see land gains on their balance sheets. Conversely, in areas of below-average profitability, firms selling commercial property do suffer a loss. And those who don't sell still suffer losses on the balance sheet.

However, this is same case as in the tendency for the equalization of the rate of profit across sectors. Firms in sectors witnessing surplus profitability continue to accrue above average returns until supply rises enough to bring the price back down. And in sectors where there are below average returns the situation continues until supply is brought back down with demand for the commodity, thereby, raising its price. In either case, some firms pocket surplus profits and others make a below average return. Nevertheless, it is through this process that the tendency for the equalization of the rate of profit across sectors takes hold (Marx, 1991, p. 274). As Marx puts it:

'This constant equalization of ever-renewed inequalities is accomplished more quickly...the more mobile capital is' (Marx, 1991, p. 298).

It is the same in case of the tendency for the equalization of profit across space. The rise or decline in the land price means surplus profits for certain owner-occupying capitalists and losses for others. But it is through this process that cost outlays on land adjust such as to equalize the rate of profit. The parity in profit rates across land as in the case of sector also operates as a tendency and is not a pre-given condition.

My fifth point is that qualitative differences between freehold and rack-rent leasehold tenures lead to quantitative differences in land valuation. In freehold tenure land price is determined by capital investment into land. The case of rack-rent leaseholds is precisely the opposite where a separate class of landowners were the only freeholders of land. Landed property here case acted as an obstacle to capital investment. During the heyday of classical political economy and Marx's critique of it, land derived its value from being a barrier to capital investment. It could not be privately possessed by capitalists and, therefore had to be rented. This barrier to ownership was the fundamental condition from which ground-rent flowed to the landed class (Marx, 1991, pp. 752-753,772-773, 886-889).

In freehold, land price is instead generated through the flow of capital into land by owner-occupying functioning capitalists. Qualitative differences in the form of land tenure mean land price arises from a distinct process. Moreover, qualitative differences in land tenure generate quantitative differences in how much land is valued at. In rack-rent leaseholds which Ricardo and Marx had in mind, surplus profits which were transformed into ground-rent. Ground-rent as a result of the in-kind lending of land accrued at the average rate of interest. Land price was then a product of capitalized ground-rent. As all land was rented out of necessity, a lowering of the rate of interest directly increased the price of land (Marx, 1991, pp. 760-761).

But in freehold renting is not a necessity as owner-occupation dominates. Any surplus come to be withheld by owner-occupying firms. They are not creamed off as ground-rent. This is because there is the union of the ownership of capital and land. Therefore, land is priced as such that surplus units of profits accrue at the average rate of profit and not the average rate of

interest. A functioning capitalist would in fact be making a loss if he paid a land price where the additional surplus units of profits would accrue to him as passive income at the rate of interest. It would not at all make sense for him to buy land at this price as this would result in below-average profitability. The essential difference here is that rentier landlords lent out land and the ground-rent they collected was considered a passive income. However, when owner occupation dominates, surplus profits are valued as income for actively working capitalists. Surplus profits then have to accrue at the average rate of profit or s/r. This is not the case where land price is capitalized ground-rent as if it was simply interest garnered by the landlord.

The lack of transfer of surplus profits as ground-rent to a landed class is a qualitatively distinct characteristic of freehold tenure. And it means quantitative changes in the pricing of land as well. In freehold, the same units of surplus profits generate a lower land price because they accrue at the average rate of profit while in the case of rack rent leaseholds they would be capitalized at the average rate of interest. This is because the rate of interest is at most equal to the rate of profit and generally below it (Marx, 1991, pp. 480-482). This is the crucial point to be understood and simply calling land a financial asset does not clarify matters.

The final conclusion to draw here is that land price in freehold precedes ground-rent as a logical category. Land price is derived from a market where it can be freely bought and sold by capitalists like any other commodity. Such a situation is precisely opposite to the tenurial system Classical Political Economists and Marx looked to explain. There was no land market for capitalists where they could buy land. This restriction forced them to pay ground-rent for access to land. And therefore, ground-rent as a logical category preceded land price. However, once land becomes a commodity which can be possessed by functioning owner-occupiers in freehold this ceases to be the case. Land price of commercial property now precedes as the logical basis of ground-rent.

The lack of understanding of land as an acquirable commodity by active working capital has stifled an understanding of how commercial land prices come to form in freehold. Urban rent

theory and, more broadly, scholarship on land rent has tended to accept the particular form of tenure in Britain during Marx's lifetime as the universal one. This made a wide-range of authorities such as Karl Kautsky, Kozo Uno and David Harvey unquestioningly accept that land price is always a product of capitalized ground-rent (Kautsky, 1988, pp. 83-85; Uno, 1980, pp. 97-103, Harvey, 1974).

Beitel was the first to notice that a rise in land prices aids in the equalization of the rate of profit by raising cost outlays. Nevertheless, in contradiction to this insight he stuck to the concept of land valuation as being capitalized ground-rent. It did not occur to him that when firms are their own landlord they do not have to pay a ground-rent to a rentier which means they get to retain any surplus profits (Beitel, 2016, pp. 32-34).

My sixth point is that circulation costs incurred on vacant land create the image that its price has increased when it is sold. Land price derived from surplus profits needs to be differentiated from this illusory increase in price because of overhead costs. What it represents is not land price but capital outlays on circulation plus an average profit. The sale makes it seem that unproductive labor on land has in fact added value to it. However, the final source through which the circulation costs of land are paid for by functioning capital is always surplus value. In this regard, circulation costs of land are no different to any other faux frais.

The circulation costs particular to land arise from three sources. These are the costs of purchase, landholding and predevelopment. The purchase of land entails searching for suitable land parcels, land surveying, soil composition analysis, site inspections, land title checks, registration and insurance. Next come the costs of landholding which exist for all properties. These mainly include site monitoring and security. Predevelopment costs are specific to land under development. It is through the predevelopment phase that land is readied for construction by one realtor and then sold to another. The type of realtor which sub-specializes in reducing the circulation costs of this phase is called a predeveloper. The typical predevelopment costs include, site assembly, land subdivision (platting), building permits as well as zoning and environmental

regulations (Rabinowitz, 1988, pp. 19-38; Peca, 2009, pp. 95-97, 105-112, 114-115, 138-141; Harvard, 2014, pp. 52-54, 62-79; Kone, 2006, pp. 130-131; Brown, 2015, pp.198-199).

By specializing in the predevelopment phase, the predeveloper makes an average rate of profit by carrying out these tasks more cheaply than the realtor could with an in-house team. As a result, the realtor who buys the land has to pay for the predeveloper's capital outlays plus an average profit. The realtor counts these capital outlays made on acquiring predeveloped land as a cost outlay and reimburses himself with an average profit through the sale of buildings at their retail price of production.

The source of predeveloper's profits is located in the surplus value contained between the wholesale price of production and retail price of production of buildings. The same also applies to transaction costs passed on by other landowners with an average profit to the realtor. In either case, the image is created that the price of land has increased.

My seventh thesis is that in freehold a rise or fall in the rate of interest does not increase the price of owner-occupied commercial real property in the same way as those which are rented. The owners in this case are also the users of their own properties and so are not renting them out. Consequently, there can be no ground-rent when there is owner-occupation regardless of the existence of land price. And since there is no ground-rent it cannot be discounted at a higher or lower rate to yield a lower or higher land price. This is the case with approximately sixty-four percent of commercial real estate in the U.S. which is owner-occupied (Ghent, Torous and Valkanov, 2019, p. 156). The same also applies to properties on sale that are not currently leased by tenants. Nevertheless, a change in the rate of interest does visibly impact the market price of land of owner-occupied commercial real estate. This directly observable price, however, should not be conflated with the real land price (s/r) from current use around which it oscillates.

As discussed above the rise or decline in the direct market price of land of owner-occupied properties is related to supply-demand imbalances of a given sector. This is linked to

the business cycle which in turn causes booms and busts in commercial property. There is an enormous literature on cycles in property prices and their links to the rate of interest as well as other variables. Real estate cycles, however, form the subject of crisis theory which is beyond the scope of my work (Ball, Lizieri, MacGregor, 2001, pp. 195-215; Harvey and Jowsey, 2004, pp. 110-113; Jones, 2018, pp. 188-194; Barras, 2005; Barras, 2009; Rabinowitz, 1980; Gottlieb, 1976 Renaud, 1997; Pyhrr, Roulac and Born, 1999; Mueller, 1999; Herring and Wachter, 1999; Case, Goetzmann and Rouwenhorst, 2000; Malpezzi and Wachter, 2000; Leung and Chen, 2006; Rey, 2015; Wheaton, 1987; Wheaton and Rossoff, 1998; Grenadier, 1995a; Grenadier, 1995b; Voith and Crone, 1988; Chervachidze, Costello and Wheaton, 2009; Chervachidze and Wheaton, 2013; Wheaton and Torto, 1988; Wheaton and Torto, 1990; Peters, 2016, 3-14; Goodchild, 2016, pp. 24-28; Fainstein, 2001; Weber, 2015).[36]

I will only adumbrate here the link between market prices of land from current-use and interest rates. At the beginning of the business cycle, demand begins to climb in various sectors. As demand outpaces supply, the resulting surplus profits raise the market price of land above its real price. Low interest rates and expansion of credit make it easier for firms to gain mortgages and developers to acquire loans. This fuels expectations of further increases in price, generating a self-propelling property boom. Once supply begins to catch up with demand the market prices of land begin to stabilize and then fall. The higher demand for loan capital now also leads to higher interest rates. Firms and developers now reverse their expectations and expect a further fall in the market-price. As a result, market prices of land do fall further. Finally, the boom goes bust when new properties come onto the market creating a supply glut. In sectors where supply exceeds demand due to overbuilding, the market price of land swings in the other direction and falls below its real - equilibrium price level. Losses in the property market result in a contraction of credit (Ball, Lizieri, MacGregor, 2001, pp. 154-157, 160, 196-197; Weber, 2015, pp. 50-52). The more the market prices of land diverge from their real price the greater is the collapse afterwards.

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[36] For residential real estate crises caused by land prices see the land leverage approach pioneered by Bourassa (Bourassa, et. al., 2011).

My eighth and final point, is that this model of land price from current-use is consistent with the Georgist literature on land price taxation (George, 2009; Dye and England, 2010). Surplus profits are only available in particular location in the center of clusters with irreproducible characteristics. Therefore, levying a land tax in locations of surplus profitability will not lead to capital flight, unless if the tax is so high that the rate of profit of firms in central location falls below the average. This would only happen if more than the surplus units of profits were taxed away. If this does not occur, then enterprises will stay put. However, any such tax levy will also bring down average rate of profit across the economy as a whole if land taxes are levied in locations of surplus profitability.

In terms of taxation policy, it is once more useful to understand that land price in freehold is generated by surplus profits accruing at the average rate of profit rather than the average rate of interest. If a tax was levied on the surplus units of profits assuming that they accrue at the average rate of interest rather than the average rate of profit, urban centers would in fact remain undertaxed. And functioning capital in the center of clusters would be able to hold onto a portion of the surplus units of profits. This is what would occur assuming that the average rate of interest is generally below the average rate of profit (Marx, 1991, pp. 480-482). This is a practical policy implication of understanding the tenurial differences between freehold and rack-rent leasehold.

<u>Section 6.3 – Ground-rent in Freehold</u>

In this section, I show how ground-rent comes into existence when owner-occupation of land by enterprise is the form of tenure. There are three parts to my argument here. First, I provide a simple model of how when commercial property with land price is leased it yields a ground-rent. Second, I show how there continues to be a trade-off between renting and owning in the presence of ground-rent. Third, I show how a change in the rate of interest after a lease has been locked in can bring about a differential ground-rent in freehold.

I begin now with the first argument. Land price from present usage is a function of surplus profitability and is equal to s/r. When land is a commodity which can be bought and sold by functioning capital its value comes to be determined through the market for its purchase and sale like any other commodity. Once this value is given, the rent drawn from the land can be determined with the assumption it is lent out at the average rate of interest. Assuming the rent is paid in annual arrears, the equation for freehold ground-rent drawn from the current-use land price can be listed as:

(1) $G = L * i$

Where freehold ground-rent drawn from land price (G) is equal to the land price (L) of a commercial property derived from its current-use discounted at the average rate of interest (i). The average rate of interest now becomes the price of rented land and the land price instead becomes its loan principal. This is the real rental price of land from current use in the leasing market at any point in time around which the directly observed market rental rates fluctuate. These oscillations are caused by the direct market prices of land oscillating around their real price.

Since land price from current-usage (L) is equal to surplus or deficit units of profits accruing at the rate of profit, equation one can be rewritten as:

$$G = \left(\frac{s}{r} \right) * i$$

This in turn gives us:

$$\frac{G}{i} = \left(\frac{s}{r} \right)$$

Three simple conclusions follow. If land price is zero, then only a building rent will be charged, and ground-rent will be equal to zero. If there is a positive land price due to surplus profitability of an area, then a ground-rent will be brought into existence through leasing of the land.

Conversely, if the area suffers from below-average profitability the negative land price will lead to a negative ground-rent. This negative ground-rent will then be a deduction from the building rent charged for the commercial property. This can be considered the bare minimal building rent as long as the cumulative value of the property is above zero because the negative land price is less than the price of production of buildings. In practice, this appears as a discounted rent in economically depressed areas.

Evans was the first to discuss the concept of minimal rent. He uses the category of transaction costs to discuss expenses related with negotiating leases and monitoring tenants along with the risks which are entailed by a landlord. He argues that capital outlays made on leasing transactions generate a minimal price for land. This is his way of critiquing the concept of absolute rent which Marx used to explain the existence of minimal rent on the worst land. Evans was correct in pointing out that land parcels entail overhead costs which generate a minimal price. But he was wrong to think these circulation costs permanently increases the price of land and are, thereby, passed on to the final-end user. These are rather recouped by the realtor

through the difference between the wholesale and retail price of production of buildings. Moreover, leasing of a property does not even create the image that the price of land has increased. As there is no sale, there is no way to pass on these costs with an average profit along with the land title. These capital outlays are rather recovered with an average profit in the form of fees and commissions tied to the lease. I referred to them as brokerage profits in chapter four. Moreover, any risk incurred by the landlord in leasing adds to the capitalization rate rather than increasing land price (Evans, 1999a; 1999b).

Whatever the level of ground-rent, it only comes into existence when a commercial property with a land price from current use is lent out. When owner-occupation of land dominates, ground-rent as a category does not logically precede land price. It is instead a secondary category derived from the discounting of land price. Ground-rent in freehold is only brought into existence through the renting of commercial property with land price. The reason for it is that titles to land in freehold like any other commodity can be freely acquired on the market by working capitalists. This brings about a positive land price in areas of surplus profitability. It is only afterwards that land price is discounted when lent out, thereby, generating a ground-rent. The situation here is opposite to rack-rent leaseholds where land could only be accessed by enterprise through renting as in eighteenth and nineteenth century Britain. Only thirty-six percent of the aggregate value of commercial real estate in the U.S. is rented out. But it would be deeply mistaken to think that, therefore, only rented out properties have a land price. Land in freehold is not inherently an interest-bearing asset. There can be land price without land being lent out in kind in return for a ground-rent (Ghent, Torous and Valkanov, 2019, p. 156).

I have made the simplifying assumption of land being lent out at the average rate of interest for the purpose of demonstration. In chapter four, I already covered property capitalization rates differ due three factors of supply-demand imbalances in a location as well as microeconomic and macroeconomics risks. There I ignored the role of land price and fluctuations in the market prices of land. Consequently, it followed that land is rented out along with buildings at a certain risk premium in addition to the risk-free rate (Sivitanidou and Sivitanides, 1999, pp.

20-21; Sivitanidou and Sivitanides, 1996, p. 10; Sivitanides, et. al., 2001; Dasgupta and Knapp, 2008; Hollies, 2007; Lieser, 2011; Sivitanidou and Sivitanides, 1996, p. 10; Sivitanidou and Sivitanides, 1999, pp. 20-21; Sivitanides, et. al., 2001; Hendershott and Macgregor, 2005, p. 320; Chichernea, Miller, Fisher, Sklarz and White, 2008, p. 283; Chuangdumrongsomsuk and Fuerst, 2017, pp. 278-279; Wheaton, 1987; Wheaton and Torto, 1990, pp. 530-532; Wheaton, 1999; Chervachidze, Costello and Wheaton, 2009, p. 51; Chervachidze and Wheaton, 2013; Clayton, Ling and Naranjo, 2008).

But real land price from current-use and the direct market-prices of land are also two additional factors which impact capitalization rates. Land price of a commercial property can rise after it has been leased out for a period of several years. This may be due to agglomeration economies in an area or a rise in demand generating higher profitability. Or, alternatively, this could be due to a decline in profitability in other regions of the economy which makes the rate of profit of the area above average. In either case, land price of a commercial property will rise after a rental contract for it has been signed. Such a rise in land price will mean the capitalization rate for the property will decline. This is referred to as cap rate compression. Alternatively, the land price of a commercial property could decline after it has been leased out for several years. In this case, the rate of return on the lease would increase because of a decline in its land price. This is known as cap rate expansion (Chervachidze and Wheaton, 2013).

A rise or decline in land price is a key reason for the conceptual difference between the 'going in cap rate' versus the 'going out cap rate' in the field of property valuation. The former gauges the rent drawn from a property at the inception of a lease period while the latter uses the commercial property value at the end date of a lease to calculate the capitalization rate. For example, if a property gains land price between the beginning and end date of a ten-year lease, then the going-out capitalization rate will be less than the going-in capitalization rate. Alternatively, if it suffers a loss in land price, its going out cap rate will be higher than its going in cap rate. Moreover, even if land price remains the same fluctuations in direct market prices of

land around make it necessary to differentiate between the beginning and end date capitalization rates of a rented property (Morri and Benedetto, 2019, pp. 104-106).

As a whole, a property under lease offers the image of having a Net Operating Income or NOI in which building rent from buildings and the two sources of ground-rent appear as muddled. The summed-up rent amount then is capitalized to yield a property value. Conventionally, this is represented in equational form as:

$$Property\ Value\ = \frac{Net\ Operating\ Income}{Capitalization\ Rate}$$

The equation can be further complicated to account for growth in the NOI and depreciation giving us:

$$Property\ Value\ = \frac{Net\ Operating\ Income\ (NOI)}{Capitalization\ Rate\ (r) + NOI\ Growth\ Rate(g) - Depreciation(d)}$$

Both equations are textbook orthodoxy for appraisers and real estate economists alike (Baum, 1991, p. 156; Brueggeman and Fisher, 2019, pp. 306-314, Wyatt, 2013, pp. 136-142; Ball, Lizieri and MacGregor, 2001, p. 271- 272).

Ground-rent and build rent are both confounded here together. As a consequence, land as an unproduced commodity remains undistinguished from the produced buildings. The observer is made to overlook land as distinct factors of production from capital. Commercial land price appears as a pure residual value resulting from the surcharge of rent beyond the price of production of a building. The equation as a tautology obscures the distinct sources of rent and how it comes to exist in a given tenurial system. This appearance has caused confusion in urban rent theory leading to the conclusion that land price is a passive residual price which is the

outcome of the ability of a landed class to charge an arbitrary monopoly price (Beitel, 2016, p. 33).

In the second equation, the variable of depreciation conflates physical and moral depreciation of buildings. The formula also posits that a commercial property depreciates as a whole. This makes it seem that land as a part of commercial property also depreciates overtime along with buildings. This muddled appearance may stem from the fact that older buildings command also less ground-rent because less profitable firms occupy them as tenants.

Taking these two equations at face value can only lead to an analytical impasse. Rather, what is needed is the process of abstraction to separate out the component parts of rent just like how a prism is used to distinguish the rainbow of colors which produce white light.

The second point I want to show is that there continues to be a trade-off between renting and owning given the presence of ground-rent. This is due to there being quantitative differences in the amount of ground-rent charged between rack-rent leasehold and freehold. In rack-rent leaseholds all the surplus profits were charged away as ground-rent by the landed class (Allen, 1982, Beckett and Turner, 2004, p. 284; Ricardo, 1996, 45-56, Marx, 1991, pp. 785-787, 968).

In freehold, not all of the surplus units of profits are charged away as rent. Only the discounted portion of land price is paid annually as ground-rent. The price of land from current use acts as the loan principal. The value of this sum is equal to the units of surplus profits accruing at the average rate of profit. And when land is rented or lent out it only accrues the average rate of interest on this principal. Assuming then the average rate of interest is below the average rate of profit, renting firms get to withhold a portion of the surplus units of profit (Marx, 1991, pp. 480-482). Only a portion of the surplus units of profits accrue to the property-owning firm as ground-rent.

It then follows that a trade-off ensues between owning land versus paying ground-rent for it. This trade-off exists for land just as it does for buildings. For simplicity, I hold the price of land constant. I also assume that the depreciation rate of the building is lower than the average rate of interest at which ground rent accrues. This makes it possible for the cost of ground-rent over a number of years to outstrip the price of land before the property is completely depreciated. It is also a realistic assumption given the long lifespan of buildings.

Renting land then will boost the rate of profit for a certain period of time in comparison to outright purchase. However, after a certain number of years the accumulated cost outlays on annual ground-rent will come to equal the price of land. This amount of years is always equal to the inverse of the capitalization rate. At this point, renting instead of owning land no longer boost the rate of profit. This is the same as when building rent piles up over a number of years to equal the price of production of a building. Beyond this point, the renting land tends to lower the rate of profit in comparison to ownership because the costs of ground-rent outstrip the price of land.

As a whole then, the total number of years it takes for ground-rent and building rent to equal the price of the property is its years' purchase. Subsequently, rent drawn from land and buildings becomes more than the value of the commercial property. As a result, the rate of profit from renting declines to below that which would obtain from outright purchase (Ball, Lizieri and MacGregor, 2001, p. 275).

The difference here in comparison to the discussion of years' purchase in chapter four is that I have factored in ground-rent drawn from land price. Previously, the price of production upon which a building rent was paid was the only variable considered in terms of the trade-off between renting and owning. But once land price is factored into the analysis the number of years' purchase for commercial property becomes altered. The reason is that land is unproduced and does not depreciate like buildings. This creates two contradictory tendencies. On the one hand, building rent declines thanks to depreciation while the quantity of ground-rent charged remains constant. This works to raise rental costs and, therefore, lower the time of years'

purchase. On the other hand, as land does not depreciate the renter does not have to pay for depreciation either. This works to lower the costs of renting and increase the span of years' purchase. Nevertheless, once buildings have been entirely depreciated no ground-rent can be charged for a property.

I will now move to the third argument. In freehold, a differential ground-rent can arise because of a drop in the rate of interest. I have already argued in chapters three and four that there is nothing inherent about buildings which make them an interest-bearing asset. The same applies to land. Similarly to buildings, what makes land a financial asset is the lease structure of a property which makes it a debt security akin to bonds. The reason is that renting of land is lending in kind of space. Its lending price is the ground-rent charged. And this ground-rent is determined by the rate of interest discounted on the land price. The price of land here acts as the loan principal. This land price as a principal is annually returned to the owner in the physical form of the land itself along with an interest payment.

In the U.S., commercial lease lengths typically span from seven to twelve years but can also be shorter or longer. Some leases may charge a flat rent throughout while others might be of an ascending order. Alternatively, in retail there is greater seasonal volatility, so a base rent is charged plus a percentage fee on sales (Geltner and Miller, 2001, pp. 806-807; Brueggeman and Fisher, 2019, p. 270; Peca, 2009, pp. 151, 152-153).

Regardless of these leasing variations, the cumulative ground-rent paid over the years has to average out to equal the discounted price of the land. This is the real rental price of land, appraisers look to discover when researching and structuring leases. It can be algebraically portrayed as:

(2) $G = \frac{\Sigma\ G}{n}$

Where the average ground-rent charged over the course of n years ($\frac{\Sigma G}{n}$) for a leased property is equal to the ground-rent (G) derived from discounting its land price which forms its real rental price.

A decline then in the rate of interest after a property has been leased will mean it yields a higher ground-rent than what it would at current the market rate. This is because the individual property will be charging a higher capitalization rate than the one prevailing in the current market. When this ground-rent for the property is capitalized at the new lower market rate it will yield a higher price of land as a financial asset in comparison to its real land price. This higher price of land will be owing to the lease structure of the property. The leased property will, thereby, have a higher total commercial property price in comparison to before the drop in interest rates (Ball, Lizieri and MacGregor, 2001, p. 271).

I term this differential ground-rent. Its cause is the same as what brings about differential building rent. Both depend on a fall in the rate of interest after a lease is locked in for a property. As a result, leased properties sell at a premium to their real price when interest rates decline. Leased properties act similar to bonds selling above par when the rate of interest falls. Conversely, if there is a rise in the rate of interest then leased commercial properties sell at a discount to their real price. This will be due to them accruing below market level building and ground rents. This is also similar to how bonds sell at a haircut to their face-value due to a rise in interest rates (Ball, Lizieri and MacGregor, 2001, pp. 271-273). These commonalities shared between leased properties and bonds stem from the fact that both are forms of lending that garner interest.

Section 6.4 – Realtor's Profits from the Sale of Land

In this section, I develop a simple model to show how realtor's capital draws an average profit from the redevelopment of land with a positive value. Through this service, the most profitable activity is awarded land-use. This in turn reinforces the urban land price gradient where the most profitable activities are placed in the center of a cluster.

The section is broken down into four parts. First, I discuss the empirical aspects of how the market price of land rises through redevelopment. Second, I go over the three differences types of land prices. This sets up the third leg of the argument in which I show how the realtor draws an average profit from the intermediation of land price through its redevelopment. Fourth, I distinguish realtor's capital from the land speculator who draws profits from buying and holding land without developing it.

I begin now with the first point. The total supply of land in any area is fixed but the supply of land for a particular use in the area can be increased at the expense of other land-uses or on new vacant plots. This is the point of land-use conversion (Neutze, 1987).

There is a general agreement that the redevelopment of land through which land-use is altered leads to a higher land price than the current one. The rise in the direct market price of land from a potential alternative use is accompanied by a decline in the direct price of land from the current use. It is also accompanied by the growth obsolescence or moral depreciation of the current building in use. At a certain point it becomes profitable to buy the land from its current owner, tear down the current building and build a new one. This is well established in property appraisal theory under the regulating principle of 'the highest and best-use' of land. It is also understood in urban economics as an empirical regularity through which land-use undergoes change (Munneke, 1994, pp. 229-232; Wheaton, 1982, pp. 54-55; McGrath, 1999; Dye and McMillen, 2007, p. 48; Rosenthal and Helsley, 1993, p. 183; Marohn, 2019, pp. 23-27; Appraisal Institute, 1992, pp. 275-297).

Land redevelopment was introduced to geography by Neil Smith as somehow a theory of urban change under the heading of the 'Rent Gap' with the specific case of housing gentrification in mind. It became well accepted as a theory of change in land-use in geography and urban rent theory. However, as emphasized by Bourassa the rent gap only describes how urban land-use is altered and is not an explanation for it let alone an economic model. As the framework is borrowed from property appraisal it does not explain the link between what determines the gap between the price of land from the current-use and the higher price of land from the alternate-use. Nor does it explain how land redevelopment occurs within the framework of equalization of profit rates (Smith, 1979, 1987; Ward and Aalbers, 2016, pp. 17-19; Beitel, 2016, pp. 28, 33; Bourassa, 1992).

I will now move onto my second point. Land is a rivalrous good. This creates competition amongst firms over the same land-use. Land, however, can be put to a myriad of uses. If it is put under one use it excludes the possibility of other uses. This then also creates competition between differing land-uses amongst functioning capitalists. And realtors here as intermediaries of land compete against one another in profiting from land-use conversion.

Whether competition between differing land-uses leads to redevelopment depends on the relation between three types of land prices. First, there is the price of land derived from current-use. Second, comes the wholesale price of land paid to develop a plot. Third, there is the retail price of land derived from the alternate-use which the new development is sold for. The current, wholesale and retail prices of land are real or equilibrium prices around which market-prices fluctuate. In urban economics and appraisal theory, market-prices of land are referred to as 'residual' price (Clapp, Cohen and Lindenthal, 2021, pp. 2-5, 5-9). No distinction is made between these three real prices of land and price oscillations around them which are directly observable. This is a nonstarter.

Until now I have only covered how the price of land from current-use comes about. In what follows, I explain the relation between the three types of land price upon which redevelopment hinges.

First, there is the land price drawn from current-use. As covered in section 6.1, this can be equal to zero, above zero or negative. It is equal to the surplus or deficit units of profits from current-use which accrue at the average rate of profit. The total current value of a commercial property is equal to the sum of the price of production of building plus its land price.

Second, there is the wholesale price of land offered by realtors to acquire a parcel of land for redevelopment. This is the intermediate price of land paid to buy it and is distinct from the land price once the plot has been redeveloped. Once the wholesale price of land is paid to the previous owner of land by the realtor it becomes a sunk cost of the redevelopment project. It continues to exist when the land parcel is vacant until a new building has been built. It also exists in the instance of rural lands that are purchased for a new development. It is, therefore, commonly refer to it as the value of vacant land or 'teardown value'. (Munneke, 1994, pp. 229-230; Wheaton, 1982, pp. 54-55; McGrath, 1999, p. 415; Dye and McMillen, 2007, pp. 45-47, 48; Rosenthal and Helsley, 1993, p. 183).[37]

Realtors as merchants in buildings and land compete with one another over the wholesale price of land. The wholesale land price is, therefore, always equal to the highest bid put up by a realtor to develop it. The bidder who wins out then can profit from its redevelopment. By the term wholesale land price, I mean to denote that this purchase is made by the realtor as an intermediary rather than the final end-user of the redevelopment.

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[37] Urban economic theory here conflates land with capital once more. It is stated that the value of vacant land is equal to the current property value plus demolition costs. Labor-time, however, can never add to the price of land. Demolition costs, therefore do not add to the value of vacant land nor are they a circulation cost. Demolition costs rather are just a portion of construction costs. As such they increase the cost-price and through it the price of production of buildings.

The present owner of a property will not sell to a bidder until this wholesale land price is at least equivalent to the current price of the property. The wholesale land price needs to be minimally equal to the land price from current-use and the price of production of the building on top of it. This is the minimum requirement for the sale of a property for redevelopment. Otherwise, the property owner would take an unnecessary loss as they would be better off selling the property for its current-. The wholesale land price can also be above the total current price of a commercial property. There is then always a latent competition between the current price of a commercial property and the wholesale land price offered by the realtor who is the highest bidder.

The wholesale price of land must always be above zero. No one will gift away property. When property is sold for current-use it always generates an income for the owner through the sale of the building even given zero or negative land-price. If the negative land price from current-use is so high that the total price of a property is zero and it is shutdown, the owner is better off holding onto it until it commands a positive wholesale price.

Once land has been redeveloped with a new building for the alternate use it will have a higher land price than its wholesale price at which it was bought. This is the third type of land price. I call it the retail land price. It is the land price at which a new development sells for. I use the term retail to highlight this as the land price paid by end-users to acquire a new development from the realtor. Once a property is sold the retail land price transforms back into the land price from current-use.[38]

For redevelopment to occur, the gap between the wholesale and retail price of land has to be enough for the realtor earn an average profit. Realtor's capital specializes in estimating these budget costs and the rate of return on the project. In the real estate industry, the standard document used for these projections is called the pro forma. Costs are calculated using data

[38] In appraisal literature, the gap between the market price of land from the current-use versus the market retail price of land from an alternate-use is what is termed the 'hope value' (Renigier-Biłozor and d'Amato, 2017). The equilibrium analog to them is the difference between the land price from current-use and the retail land price.

gathered from comparable properties which have been redeveloped in the area. The projected future revenue is compared to current costs of the venture (Peca, 2009, pp. 113-115; Morri and Benedetto, 2019, pp. 90-93). As Peca writes:

'…in reality we actually work backward. Say we have an investor willing to give us US$1 million and requires a 10 percent return. That means if we wish to obtain the investor's money, we must find projects that generate a net operating income of US$100,000…By calculating backward, we establish benchmark targets…We benchmark results…against similar project we have done or against similar projects in the market. In essence, by working…backward, we are testing financial achievability.' (Peca, 2009, p. 113).

Realtor's profit made from buying land at its wholesale value and then selling it at its retail land price after redevelopment is termed developer's profit or fee on land costs. As an accounting category, it provides the appearance of a rate of return subjectively decided by the realtor (Wyatt, 2013, pp. 403-406; Appraiser Institute, 1992, pp. 327-328; Beitel, 2020, pp. 230-231). In reality, it is dictated by the average rate of profit across the economy.

In my third point I will discuss the two conditions which need to be met for realtor's capital to makes an average profit through redeveloping land towards the most profitable use. If these two conditions are not met land redevelopment is not possible.

First, the wholesale land price (L_w) offered by the realtor needs to be minimally equal to the current property price (C) as the sum of price of production of buildings and land price from present-use. No landowner will sell his property below its total current price and take a loss. And this wholesale price of land has to be above zero as no one gifts property. The first condition can be symbolized as:

1.) $L_w \geq C$ where $L_w > 0$

Second, the difference between the wholesale land price (L_w) and retail land price (L_R) needs to be enough for the realtor to make the average profit (r) from land intermediation. This can be noted as:

2.) $(L_R) = L_w (1 + r)$

These are the two essential conditions for realtor's profits from land to take hold. These profits form a special case of commercial profits as they arise from land which is unproduced. If we substitute s/r for (L_R), the wholesale land price for a given alternate-use then becomes:

$$\frac{s}{r} = L_w (1 + r)$$

$$\frac{s}{r(1+r)} = L_w$$

$$\frac{s}{r + r^2} = L_w$$

The wholesale price of land is a function of the retail price of land and the average rate of profit. At a given average rate of profit, the alternative use from which the retail price of land derives then needs to garner enough units of surplus profit to meet both conditions. If the alternate-use is of surplus profitability but does not accrue enough mass of surplus profits redevelopment is not possible.

Redevelopment only becomes possible when the wholesale land price comes to equal the current property price. Otherwise, realtors will not be able to buy land. The lower then the average rate of profit the smaller the gap will be between the wholesale and retail price of land. This will make redevelopment more likely as the realtors will be able to offer a higher wholesale price. Conversely, the greater the average rate of profit, the larger the gap will be between the wholesale and retail price of land. This will stunt redevelopment as the wholesale price the realtors will be able to offer will be lower. The wholesale price of land is then not a passive

residual. It indicates when land-use conversion becomes profitable and, therefore, possible (Ball, Lizieri and MacGregor, 2001, p. 65).

The wholesale land price can also become greater than the current property price. This is because as the retail land price rises so does the wholesale price. But the difference between the retail and wholesale land prices is always only enough to afford an average profit to the realtor.

Realtors become forced to compete in land auctions with one another in order to acquire parcels. This leads to each of them making the highest bid for the land parcel. Therefore, each realtor will estimate backwards to see the highest wholesale land price they can offer which still leaves them with the average rate of profit. Assuming realtor firms of equal ability, the highest bidder will be able to offer a wholesale land price which ensures only an average profit after the redevelopment is sold at the retail land price (Beitel, 2016, p. 33; 2020, p. 223; Peca, 2009, pp. 113-115).

When auctions lead to the wholesale land price exceeding the current property price the property owner makes a one-time surplus profit through capital gains in land. But after redevelopment, the higher cost outlays on the retail land price bring the rate of profit back down to the average level for functioning capital. Redevelopment through the incentive of a surplus profit for the landowner increases the supply of land for the particular use with the highest units of surplus profits. This aids in equalizing profit rates.

This process is akin to how industries which make above-average profits are incentivized to increase supply which then erodes surplus profitability and helps equalize the rate of profit across sectors. The difference is that land is irreproducible and of heterogenous quality. Land-use conversion can never change the unevenness of profitability across space. There will always be zones of above-average, average and below-par profitability. Each new development project does modify the urban landscape, but it also recreates these three zones. There are always only

so many areas where surplus profits can be obtained by functioning capital. This creates competition between functioning capitals over the retail price of land of new developments.

Consequently, in the case of newly developed land, surplus profitability for firms is eliminated through the new higher retail land price which increases cost outlays in relation to profits. On the other hand, with produced commodities which are homogeneous, surplus profitability is eliminated through a decline in their price. This is turn lowers profits in relation to cost outlays. This proposition holds as long as we competitive markets without monopolistic product segmentation.

I want to emphasize that the retail land-price after redevelopment awards land-use to the firm accumulating the most units of surplus profits and not necessarily the highest rate of profit. This allows the retail land-price to neutralize the greatest amount of units of surplus profit in a given square area.

If the retail price of land rises after the plot has already been purchased by the realtor at its prior wholesale price the realtor will make a one-time surplus profit from redevelopment. Yet, this will still end up increasing the costs for the new owner-occupiers and, thereby, aid in equalization of the rate of profit. More so, the value of an input rising after its purchase is a general phenomenon and not particular to land.

For the redeveloped commercial property as a whole, realtor's capital has to make three expenses out of pocket. First, realtors pay for the wholesale land price of land. Second, they pay for the overhead circulation costs of buildings and land. Third, they pay the intermediate price of production for the design, demolition and construction of buildings. In turn realtor's capital recoups the average rate of profit on all three development expenses.

This is done by selling the newly finished property at its new retail land price (L_R) plus the retail price of production of buildings (PP). The retail land price compensates him for his

purchase of the plot at the wholesale land price. And the retail price of production of buildings reimburses him for the wholesale price of production as well as all overhead capital outlays made on the buildings and land.

1.) Redeveloped Commercial Property Value $=\ \text{L}_\text{R} + \text{PP}$

In section 4.2, I displayed the circuit of realtor's capital in the redevelopment process from sale as:

1. $M - C_{land} - C_{design} - C_{construction} - {C'}_{Buildings\ +Land} - M'$

This same schema stands but now I have covered the role of land price in addition to that of buildings in the determination of the profits of the realtor. Similarly, the building rent schema covered in section 4.3 ignored the role of land price. The schema for it was:

2. $M - C_{land} - C_{design} - C_{construction} - {C'}_{Buildings+Land} - d + m$

If we add ground-rent drawn from land price (G) from leasing of redevelopments the schema now becomes:

3. $M - C_{land} - C_{design} - C_{construction} - {C'}_{Buildings\ +\ Land} - d + m + \text{G}$

The total rent for a newly redeveloped commercial property is equal to the building rent composed of depreciation plus interest on its price of production plus the ground-rent drawn from its new retail land price.

The fourth point I want to discuss are land speculator's profits from landholdings. A particular land-use in an area over the course of a few or several years can witness rising surplus profitability. This might be due to rising agglomeration economies, lack of supply of a land-use or

a decline of profitability elsewhere. In such a case, the retail land price will continue to rise throughout the period. Therefore, the wholesale price of land will also be projected to rise continuously over the coming years.

These conditions attract the land speculator who looks to buy land at the lower wholesale price and then sell it to realtors afterwards at the higher wholesale price. The land speculator does not look to redevelop property. Land speculators do not perform any of the seven functions of realtor's capital. Rather, they simply buy land cheap early on with the goal of capital gains from selling it at a higher price later on. The most common areas for such activity are on the edges of a growing metropolis where redevelopment is expected to occur in the next few years. Land speculators can also exist elsewhere and are historical predecessors of realtor's capital. Either way, land speculators are not functioning capitalists competing for profits. They instead make a passive investment in land and in return look to garner interest (Rabinowitz, 1988, pp. 28-38, 170-175; Weiss, 2002, pp.4-16; Kau and Sirmans, 1984).

Assuming landholding occasions the average risk, the land speculator will buy a property if the expected difference between the wholesale price at purchase and the expected wholesale price at sale after given a given number of years will afford the average rate of interest. The competitive bidding between land speculators over land will reduce their margin of revenue to the average rate of interest. Assuming interest accrues annually, this can be denoted as:

$$2.)\ \mathrm{L}_\mathrm{w}^n = (\mathrm{L}_\mathrm{w}^0)*(1+i)^n \qquad \text{where: } \mathrm{L}_\mathrm{w}^0 \geq C$$

Where the projected future wholesale price of land after n years $(\mathrm{L}_\mathrm{w}^n)$ is equal to its wholesale price at purchase $(\mathrm{L}_\mathrm{w}^0)$ compounded at the average rate of interest for a period of n years $(1+i)^n$. For this to happen the wholesale price at purchase $(\mathrm{L}_\mathrm{w}^0)$ has to equal or be greater than the current commercial property value (C). This way the land speculator is able to gain interest without having to redevelop land.

The previous landowner who sells to the speculator may or may not recoup a one-time surplus profit. Moreover, if the wholesale price after this sale rises faster than the average rate of interest then the land speculator will also recoup more than the average rate of interest. It is this prospect which partly draws in speculators to begin with. Nevertheless, the rise in wholesale price reduces the profit of realtor's capital from redevelopment to the average level. Subsequently, the higher retail price of land after redevelopment also increases the cost outlays of owner-occupation. This reduces the rate of profit of enterprise to average levels too. Above average returns for landholders and speculators work to increase the supply of land for the most profitable use while restoring the average rate of profit.

Speculative landholdings in urban areas give off the image that land is being withheld from use to increase its price similar to how the landed gentry brought into existence an absolute rent (Marx, 1991, p. 889). Nevertheless, there are four reasons land speculators need to be distinguished from a class of landed rentiers.

First, for the land speculator to engage in this operation the wholesale land price needs to be equal to or outstrip the current property price by a certain magnitude. The location must, therefore, offer a certain surplus rate of profit for the alternative use. This is an external constraint on land speculators which they have no control over.

A property may be repeatedly sold between land speculators with each earning the rate of interest. But this hinges on its wholesale price continuing to increase. And the wholesale price can only rise because of growing surplus profitability from the alternate use which raises the retail price. If this surplus profitability was to decline so would the retail price and, thereby, the wholesale price of land. As such, the land speculator caught last holding the land will suffer a below-par return or a downright loss.

Second, land speculators at any given point only own a minor portion of properties as owner-occupation dominates in freehold. Therefore, they are not capable of withdrawing land

to the point that supply for certain goods and services decline below demand and they benefit of higher rents elsewhere.

Third, the land speculator needs to earn an average interest so the longer he holds the property the more he has to sell it for. Speculators are at risk of making a below par return in case they wait for too long. Speculative landholding as an investment is, therefore, always a double-edged sword. The British landed class, on the other hand, did not compete over a specific rate of profit or interest but rather ground-rent. So, absolute rent through land withdrawal did not come with constraint of garnering a certain rate of interest entailed in land speculation.

Fourth, land speculators eventually need realtor's capital to purchase the property at its wholesale price for redevelopment in order to make an average interest on their passive investment. Holding onto the property and removing it altogether from the market would result in financial loss.

A land speculator may transform himself into a predeveloper who specializes in lowering the circulation costs of readying land for construction. This is the intermediate form between the land speculator and the realtor who is an intermediary of both buildings and land. Predevelopers employ their capital not as a passive investor like the speculator but as a working capitalist. In turn, they look to make an average profit on their predevelopment costs and the land itself. The predeveloper will then look to buy land where the projected rate of growth in the wholesale price of land affords an average rate of profit. This means a systematic business plan to capture select plots of urban land across the country where wholesale land prices are rapidly climbing (Rabinowitz, 1988, pp. 148-168, 169). The predeveloper's land price offered to current landowners then is determined as:

3.) $\quad L_w^n = (L_w) * (1 + r) \qquad$ where $L_w \geq C$

Assuming a single annual turnover, the projected wholesale price of land for sale (L_w^n) is equal to its wholesale price at which it is purchased (L_w) plus an average profit $(1 + r)$. Once again, the wholesale price at which the predeveloper purchases land (L_w) has to equal or be greater than the current commercial property value (C).

The predeveloper passes on the circulation costs incurred from predevelopment to the realtor with an average profit. This transaction gives off the appearance of predevelopment raising the price of land. The mirage is created that unproductive overhead costs of activities such as land subdivision, building permits, zoning entitlements and legal costs of land sales add value to the land. This is wrong for two reasons. First, none of these activities are productive labor. Second, land is not produced and its price, therefore, cannot be attributed to labor-time.

In reality, the realtor buys already predeveloped plots to lower circulation costs. In turn, the realtor recoups circulation costs and capital spent on buying the building with an average profit. Realtors achieve this by purchasing buildings at the wholesale price of production and selling them at their retail price of production. The source of profits from land predevelopment is the surplus value contained between the wholesale and retail price of production of building.

The other source of the predeveloper's profit is buying land at a lower wholesale price and selling it at a higher wholesale price. This appreciation in the wholesale price of land is always the result of an increase in the retail price of land for a given use. And the retail price rises for a particular land-use because of a growth its surplus profitability. This growth in the wholesale land price also makes it seem that the price of land rises because of predevelopment.

Section 6.5 – Conclusion

This chapter is the positive side of my critique of urban rent theory. I have looked to make three contributions in analyzing land price in freehold tenure. First, I showed that land price from current use is determined by the free flow of capital. Land price is a function of the relative profitability of an area. Mathematically, land price from current use is equal to surplus or deficit units of profit accruing at the average rate of profit rather than interest. This means land price is not a passive residual but an active indicator of the relative profitability of the current land-use in a location. The urban land price gradient is then a function of the profitability gradient. Land prices are highest in the center of the cluster where the rate of profit is the highest. As the rate of profit declined due to waning agglomeration economies so does the price of land. Where average profits prevail the price of land is zero. And in areas of below average profitability, land price is in fact negative.

Second, I showed how when this land price when rented out forms the basis of ground-rent in freehold. Ground-rent is a derivative category from land price rather than the other way around when owner-occupation is the norm as is the case in the U.S. today.

Third, I showed how realtor's capital through redevelopment awards land to the alternate-use with the highest units of surplus profits and in return draws the average rate of profit. The higher retail land of price of new developments, nevertheless, eliminates surplus profitability by raising cost outlays. Through land-use transformation realtor's capital renews the urban land price gradient amidst changing usage of the land. I also distinguished the role of the land speculator and predeveloper from that of the realtor's capital. Altogether, I have in this chapter provided a theory for why urban land prices decline with distance from the center of an agglomeration.

Chapter 7: Realtor's Profits from Residences

Section 7.1 – Introduction

Until now I assumed that all commercial property is used by functioning capital as either owner-occupiers or as commercial tenants. However, commercial real estate encompasses all income-producing properties. If a residence is rented out to generate revenue, the property is being utilized by its owner for a commercial purpose. The main two categories here are multifamily apartment and single-family rentals. The buildings in both cases are capital because the owner uses them to accrue an income rather than for individual consumption.

But a property used as residence does not generate a profit for its occupiers because they are not functioning capitalists. This was my sixth observation. Therefore, the source of profits of realtor's capital from residences must differ from that of commercial-use. The immediate source of payment here is always the revenue of household. Urban rent theory, however, fails to distinguish between the sources of income from commercial-use and residential-use.

This creates the sixth analytical gap in the literature. The resolution to the problem lies in applying the supply-demand mechanism to the case of residential land-use. In freehold, land is traded and redeveloped for residential-use just like it is for commercial-use.

My inquiry can be broken down as follows. In section 7.2, I analyze the sources of realtor's profit from the sale of buildings at its price of production or below it for residential-use. In 7.3, I build further on the analysis by showing how land price from residential-use comes into existence when demand outstrips supply. The sources for this residential land price lay either in the wages of labor-power or the capitalist consumption fund.

I complete my analysis by clarifying the sources of residential building rent and ground-rent in section 7.4. Building rent of residences is also composed of depreciation plus interest

charged on the price of production. The source of payment for this interest is also the individual revenue of workers or capitalists. Similarly, the source of residential ground-rent also lies in either the value of labor power or the capitalist consumption fund drawn from surplus value. When value of labor-power is used to pay for then either building-rent or ground-rent it comprises financial expropriation as it is a payment without equivalent. By uncovering the sources behind realtor's profits from residences I solve the conundrum raised by the sixth lacuna in urban rent theory.

Throughout, this chapter I assume that all sectors are in equilibrium and all produced goods sell at their price of production. I do this in order to analyze the real price of residential land, irrespective of market fluctuations. Otherwise supply - demand imbalance in sectors can cause the market price of residential land to be higher or lower to its real price. This is because a sector witnessing surplus profits will attract additional workers, thereby, raising the market price of residential land in the area above its real price. Conversely, a sector with below average profitability will see an outflow of workers from the area where it is located. This will drive the market price of residential land in the area below its equilibrium or real price level.

There can also exist a general shortage of housing supply across the entire because of rising demand. Given the laggardly pace of housing construction, the lack of housing supply can even become a chronic problem. This will cause a rise in the market price of residential land above its real or equilibrium price when across the board. Although, this is crucial factor in U.S. housing markets today I do not explore this issue. My sole focus is in determining the sources of realtor's profit from the sale and leasing of housing when the buyers happen to be individuals and not for-profit businesses.

Section 7.2 - Realtor's Profits from Sale of Residential Buildings

I consider two cases here as to the sources of realtor's profits. First, when supply of residential property equals demand in area and, second, when it outgrows demand. The first case is when supply meets demand for commercial property for residential-use. Here the sources of realtor's profits from the sale of residential buildings are the same as any other. When supply meets demand for commercial property in a locale, buildings are sold at their price of production. Land price will be equal to zero. The situation here is exactly the same as when a property exists for commercial-use by its occupants.

Residential buildings circulate as any other commodity. When sold, it is exchanged for an equivalent sum of money. It does not matter that it is used for individual consumption and, therefore, forms a part of the means of consumption rather than production. The commercial profit of the realtor is derived from selling the buildings at its retail price of production while purchasing it from the construction and design firms at the wholesale price of production. The final source here is the surplus-value congealed in the commodity itself. It does not matter here if the buyer is a worker or the owner of enterprise (Marx, 1992, p. 479; Marx, 1991, pp. 392-393, 396-400, 423; Moseley, 2016, pp. 95-98).

When market supply already meets demand for residential properties the projected retail land price for new developments will be zero. As a result, redevelopment of land for new residential-use will not be profitable for the realtor. This is because the wholesale land price to be zero and no one would gift their property to the realtor. And if the realtor procures the land at a wholesale price above zero then the margin between it and the retail price of land will not be enough to afford an average profit. The realtor would then take a loss. This constraint on land-use conversion applies to all properties and not just residences.

Once a residence is purchased for consumption by the new owner it falls out of circulation. The building stop existing as capital. The land and buildings now become residential

real-estate because its owner also occupies it for residential-use. It begins to be individually consumed. All residential real estate then starts off as commercial real estate on the market as a new property.

A second case can arise where the current supply of property for residential usage outstrips the demand. More houses and apartments are on sale than there is demand for them. Given the lack of demand, sellers are forced to slash prices in order to sell homes. This makes the property sell at a discount to its price of production. This discount is due to the existence of a negative land price for residences in the area. The source of this negative land price is the lack of demand for purchasing homes in the area. It is not a result of below-average profitability as in the case of commercial-use. In practice, this appears as the home selling below its cost of replacement. As Larson writes:

'… in declining areas such as the industrial Midwest where the asset value of homes is often far less than replacement costs, and in booms or busts in the national housing market, where buildings are priced differently than the replacement cost would suggest.' (Larson, 2015, p. 5).

The exact amount of negative residential land price which makes a home sell below its price of production cannot be determined like in the case of commercial-use. Loosely stated, the more supply outstrips demand in a locale, the more the property will sell at a discount to its price of production.

In such areas of negative land price, the realtor also will not look to develop residential properties for sale as it would lead to below-average profits from the project. Moreover, unforeseeable changes in demographics and agglomeration patterns can also cause a decline in demand for residences leading to losses on developments already in the pipeline.

Section 7.3 - Realtor's Profits from Residential Land Price

I will now consider the third case where the realtor's profits accrue from the sale of property for residential-use which has a positive land price. Households do not compete for profit but similar to firms their land prices do exhibit a negative land-price gradient. Empirical research has confirmed that land prices derived from residential-use are also at their highest in the center of urban areas and then decline outwards with distance (Dye and McMillen, 2007; Davis, et. al, 2021; Davis and Palumbo, 2008).

Residential land price comes into existence in a locality when the supply of residences is outstripped by demand for them. This occurs when an area has superior characteristics such as access to urban labor markets, better-performing schools, amenities, less crime, natural beauty, lower pollution. The limited supply of land makes these features irreproducible, thereby, acting as a driver of segmentation in housing markets (Islam and Asami, 2009).

The limited supply of land for superior consumption combined with the pooling of labor-power from agglomeration creates a positive feedback loop. A symbiotic relationship is formed through a self-reinforcing cycle. On the one hand, as the pool of labor-power grows so do the benefits of agglomeration for capital drawing in more firms. This creates more jobs in the area which in turn attracts more workers. On the other hand, as more workers come to an area the demand increases for various niche personal consumption items and services. This lowers their circulation time, consequently, sustaining local businesses engaged in the production of such non-tradeables. These businesses could not otherwise survive in areas with a lower population density. This is the reason why craft coffee cafes, organic grocery stores, exotic international food markets, independent cinemas, bars catering towards specific minorities, ethnic cuisines and restaurants exist in much greater numbers in dense population centers. And the growth in such amenities further attracts more workers into an agglomeration as such lifestyles cannot be practiced elsewhere.

Throughout this chapter I assume that there is equilibrium as all sectoral markets clear with produced commodities selling at their price of production. This assumes away a general shortage of housing supply in an economy. In such a case, the market-price of residential land would rise above its real price to varying degrees given locational advantages or disadvantages. It might, therefore, be asked given equilibrium how can the demand for housing in a locality outstrip supply? The answer here is simple. There can be enough housing supply to meet demand in an economy as a whole but superior locations within it will still witness higher demand than supply. This is a result of the superior locational qualities for living which are irreproducible. The unique living conditions in Lower East Side Manhattan or the Upper West-Side cannot be recreated elsewhere. The supply of housing stock can always be expanded but there will always be a limited amount of areas by definition which are considered to have better livability or luxurious attributes. Housing within a market segment is still highly non-fungible. It should not be imagined as a mutually substitutable good.

Because demand in superior housing locations outstrips supply, competitive bidding proceeds between individual consumers as a result. The highest bidder wins the homeownership in the coveted area and the losers are pushed out towards less advantageous locations which are more affordable. This home auction brings into existence a positive land price for the current stock of properties. The property gains this land price from current-use due to its coveted location. This is the long-term real price of residential-use in an area around which market prices fluctuate. Once the property has been purchased for residential occupation by its owner it is no more a commercial property. However, its land price now continues to contribute to the total price of the property. For residences in the area this becomes their current land-price. This is how a residential land-price comes into continues to existence after a property is sold. Afterwards, this land price may rise or decline depending on the balance between supply and demand in the area.

This current land price now also acts as the benchmark from which retail land prices for new similar properties are estimated by the realtor. Residential land-use in the area competes

with other land-uses in the same two ways as other properties. First, the current price of a residential property competes with the wholesale land price realtors are willing to pay to repurpose land for a different use. Second, the retail price of land for new residences determines the wholesale price of land a realtor can offer to redevelop land for residential-use. This wholesale price of land for residential developments now competes with the current property prices derived from alternate-uses in the area.

Realtors collect information on current land prices from residential-use and area demographics to estimate the highest retail land price potential redevelopments of land for residential-uses can offer them such as those for young singles, retirees, families, etc. Having estimated this retail value, they can calculate backwards to see what wholesale land price bid will leave them an average profit. They can then compare this wholesale price for residential redevelopment to the current property price from other uses. If the wholesale price is equal to or greater than the current property price then redevelopment for residential-use becomes feasible (Peca, 2009, p. 113).

Redevelopment can also convert housing for lower-income residents to higher income ones as commonly seen in urban areas which are being gentrified. In this case, land price from two distinct market segments for residential use are put into competition with one another (Smith, 1979, 1987; Rosenthal and Helsley, 1994; Dye and McMillen, 2007).

The source of residential land price is distinct from commercial land price. Residential land prices are brought into existence by bidding competition amongst individuals looking to consume housing as the commodity. Here the source of land price as an unproduced commodity lies in the payment made for it from the wages of labor or the luxury consumption of the owners of enterprise (Marx, 1992, p. 479). Money begins to function as a means of payment without an equivalent labor-time congealed in a commodity. Residential land price paid for by workers then acts as a deduction from the value of their labor-power even before one considers mortgages, etc. It is a form of financial expropriation as termed by Costas Lapavitsas. The source of land price

here is the deduction from the value of labor-power caused in the sphere of circulation by workers bidding against one another to gain housing (Lapavitsas, 2009; Lapavitsas, 2013, 141-147; Marx, 2000a, pp. 41-43; Marx, 1991, pp. 733-734 ,744-745, 762-767, 908-909; Engels, 1872, pp. 25-36).

Alternatively, In the case of luxury housing paid for by capitalists there is also a payment made without equivalent but as the source here is not the value of labor-power it cannot be considered financial expropriation.

The rate of profit is entirely immaterial to the process as working capital does not bid on land for residential use. Like in the case of negative residential land price it cannot be stated with accuracy how much the positive residential land price will be. Loosely put, the more supply is outstripped by demand the higher the land price will be.

 For properties occupied by functioning capital for commercial-use I stated, holding all else constant, the negative and positive land prices cancel each other out. But the magnitude of negative and positive land prices from residential-use cannot be determined with such precision. Consequently, the same cannot be said for them. The cumulative land price from residential-use need not be a zero-sum game as in the case of commercial-uses

These particular characteristics of residential land price also lead to policy implications. A land price tax on residential properties will be either a deduction from wages of labor power or the capitalist consumption fund carved out of surplus-value extracted from labor-power. Therefore, if a blank land price tax is enacted on all residential land prices, as is the case in states like California, it can be a further deduction from the value of wages. For progressive taxation policy it becomes necessary to differentiate land price which is occasioned by demand from workers from land prices formed through demand for luxury properties. For starters, then the land price derived from commercial-use needs to be differentiated from that of residential-use.

Section 7.4 – Realtor's Profit from Residential Rent

Here I analyze the case when residential properties are rented out. There are three parts to my argument. I first deal with building rent of residences. Second, I analyze ground-rent drawn from residences. Both are forms of financial expropriation or profit upon alienation of a commodity through the charge of interest. Third, I consider the case of differential rents from buildings and land occupied for residential-use.

Building rent for residences works the same in principal as in the case of functioning capital. The only differences are the sources from which it is paid. Assuming payment in annual arrears, it is equal to the portion depreciated plus the capitalization rate on the price of production of buildings. As I covered in chapter four, capitalization rates depend on the supply and demand for rentals as well as the micro and macro level risks involved with leasing. For home renting, this means areas which are lower-income and have higher crime as well as greater defaults on rent will have higher discount rates. So, the working poor end up paying a higher building rent (Desmond and Wilmers, 2019). But to simplify matters, I will assume that building rent is composed of straight-line depreciation and the average rate of interest (Lapavitsas, 2013, pp. 162-163).

The payment made for the annually depreciated portion circulates the value and surplus-value of buildings piecemeal. This is the same as in the case of other types of commodity capital which can be rented. But for the interest charged, money acts as a means of payment without an equivalence in the price of production of the commodity. This was classified as 'profit upon alienation' by the Scottish Mercantilist James Steuart. The source of this profit upon alienation is either value of labor-power or the luxury consumption fund of capitalists appropriated from surplus-value (Lapavitsas, 2009; Lapavitsas, 2013, 141-147; Marx, 2000a, pp. 41-43).

The interest on the price of production of buildings is separate from the surplus-value portion of the price of production. In the case of a wage good such as rental housing this interest

charge then acts as a further deduction from the value of labor-power. Financial expropriation is then the specific instance of profit upon alienation from sale to workers (Lapavitsas, 2013, 141-147).

Financial expropriation is a subcategory of profits made upon alienation or sale of wage goods when an interest is charged or there is a mark-up above their price of production. Conversely, in the case of residential building rent charged to capitalists there is no financial expropriation of value. There is, however a profit upon alienation through the renting of luxury residences. This is a result of the expropriation of surplus-value from the capitalist consumption fund instead of the value of wages. But in both cases the source of profit lies in the sphere of circulation rather than production. Marx in his writings on ground-rent explicitly acknowledged the existence of this form of 'secondary exploitation' and so did Engels in 'The Housing Question' (Lapavitsas, 2009; Lapavitsas, 2013, 141-147; Marx, 2000a, pp. 41-43; Marx, 1991, pp. 733-734 ,744-745, 762-767, 908-909; Engels, 1872, pp. 25-36).

If the demand outstrips the supply of the properties on sale the result will be a bidding wars amongst buyers through which a residential land price is generated. When such a residence with land price is leased, a residential ground-rent comes into existence. I will continue to assume that this ground-rent for residential property is equal to the land price discounted at the average rate of interest (Lapavitsas, 2013, pp. 162-163).

If this rent is paid for as a luxury good the source here lies in surplus value withheld by capitalists for individual consumption. But if this rent is paid for by workers, then the entire ground-rent is a form of financial expropriation as it deducts from the value of labor-power. Moreover, the rental market for workers is deeply segmented according to income. Therefore, the amount of this deduction will depend according to the segment of housing a worker occupies as well as the specific urban area where they live. The crucial divide here seems to be between college-educated professionals and the rest of the working-class. A seminal study on the topic concludes that:

'we find marked differences between low and high-skill households...college graduates living in cities with high costs of living enjoy a standard of living generally similar to college graduates living in cities with low cost of living. For high school graduates and high school drop-outs, we find...expensive cities offer lower standard of living than more affordable cities. The differences are quantitatively large.' (Diamond and Moretti, 2021, p. 33).

Across the country, this leads to a general trend where the less the earnings of renters the greater will be the portion of it which goes to rent. This can be surmised from the table below:

Household income brackets, 2018	Percent of households paying half or more of income in rent
Under $15,000	72%
$15,000 - $29,999	43%
$30,000 - $44,999	14.2%
$ 45,000 - $74,999	3.6%
$75,000	0%

Table 1- The uneven impact of residential rent (Cost burdens rise for middle-income households in most metros, Joint Center for Housing Studies of Harvard University, 2020)

Notwithstanding my assumption of the average rate of interest, in reality residences in poorer areas have their current property price and, therefore, land price discounted at a higher rate. This is a consequence of the greater incidence of crime, property damage and non-payment. So, for the same level of residential land price, the poorer you are the more ground-rent you have to pay to your landlord (Desmond and Wilmers, 2019). This adds to the rent burden of the lower rungs of the working-class.

The third point I want to note is that if a residence is leased it can also produce a differential building and ground-rent. This occurs when the rate of interest declines after a lease is in order. Changes in the rate of interest impact commercial properties occupied for residence in the same manner as those rented by commercial users. If the interest rate declines after the property is leased, the property will begin yielding a rent on the buildings and land price which is above the market rate. The annual building rent on the price of production of buildings will be

fixed at the higher capitalization rate prior to the fall in the rate of interest. Similarly, the annual ground-rent for the land price will also be paid at the previously higher capitalization rate before the decline in interest rates.

As a consequence, the same magnitude of residential rent when capitalized at the new lower market rate will yield a property value above the price of production and price of land. Due to the decline in the rate of interest, the leased property will then sell at a premium as a financial asset in comparison to its real price. The leasing of commercial property makes it akin to other debt securities such as bonds that also sell at a premium to their face-value when interest rates decline. This differential building and ground-rent from residential occupancy, however, differs in one key respect. The source of revenue is either the value of labor-power or luxury consumption from surplus value but never the profits of enterprise. This key distinction becomes obscured once a leased property is viewed as a financial asset by investors akin to other types of fictitious capital.

The sixth analytical gap in urban rent literature owes to the lack of distinction made between realtor's profits from residences and commercial-use properties. This derives from my sixth observation which is that residences do not produce a profit. It begs the question as to the sources of realtor's profits from the sale and renting of buildings and land geared for residential-use. In this chapter, I provided an answer to this lacuna in three parts.

First, I elaborated the sources of realtor's profit from residential sales without land price. Then I looked at how land price comes into existence from residential-use through bidding between individuals rather than firms. Money here acts as a means of payment rather than as a means of circulation for produced commodities. I also went over here how this land price allows for redevelopment to take place for residential properties as long as realtor's capital pockets the average profit. Finally, I went over how residential building and ground-rents come into existence. The most important contribution here was the application of the theory of financial expropriation in regard to residential land prices and rent paid by workers. I concluded by considering the case of a different rent from residences caused by a fall in the rate of interest. This results in the price of leased residences as financial assets outstripping their real price.

Part III – The Turnover of Realtor's Capital

Introduction to Part III – The Four Stages of Turnover of Realtor's Capital

This introduction has three parts. I first adumbrate the literature on real estate and emphasize that the turnover process of realtor's process has not been systematically investigated. Second, I put forth my central claim which is as follows. The peculiar demand attributes of buildings as a commodity generate a peculiar four stage turnover process of realtor's capital. These four stages are land acquisition, design, construction and promotion. Through these four stages the realtor performs his seven essential functions and recoups the average profit. The focus here is not on the profits of the realtor but to demonstrate how the realtor goes about carrying out its functions over the course of the turnover sequence. The analysis like in part two is focused on the long-run as it seeks to show how the realtor achieves an average profit through turnover assuming equilibrium conditions. However, I also rely heavily on various concrete details to show what the realtor exactly has to do to accomplish the turnover of the capital advanced. Therefore, I switch back and forth between the two levels of abstraction between the long-run and the short-run. I begin now with the first point.

In America, the subject of real estate has been approached by scholars as a from a number of angles since the beginning of the twentieth century. The growth of academic interest in it as a subfield can be traced to the fight for the professionalization of real estate as a specialized field of work. In society, this struggle was chiefly waged against the land speculator which is the germinal form of realtor's capital and who on the frontier had become a perennial villain in the annals of the American history (Gates, 1973, pp. 48-71; Billington, 1945; Swierenga, 1966; Weiss, pp. 17-26, 2002; Hornstein, 2005, Sakolski, 2011).[39] And in terms of scholarship, the pioneering work of Richard Ely in Land Economics is widely considered as setting the intellectual foundations for the professionalization of American real estate (Obeng-Odoom, 2021; Hornstein, 2005, pp. 84-117).

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[39] The relation of the land speculator to realtor's capital is analogous to the position of the usurer as the antiquarian form of banking capital.

As the study of real estate matured over the course of the twentieth century the emphasis became less on individual successes and failures and more on the analysis of institutions in real estate (Weiss, 1987, pp. 242-262). The Postwar empirical work of NBER scholars brought increased the rigor to the field. By the 1970s a large body of work had been accumulated at NBER shedding light on various aspects of construction, lending and the national wealth tied up in real estate (Saulnier, 1950; Fisher, 1951; Grebler, 1960; Klaman, 1961; Goldsmith, 1962; Gottlieb, 1976). Similar institutional analysis has been carried on by other authors (Weiss, 1987, pp. 243; Rabinowitz, 1980, 2015; McDonald, 2015). Furthermore, the economics of construction has come to be a standalone research area in its own right (Linder, 1994; Finkel, 1997; Lepatner, 2007; Erlich, 2020). However, construction economics in the U.S. as a subfield remains less developed than in Britain (for U.K approaches see Ball, 1988, 2008; Smyth, 1985; Grunenberg and Ive, 2000; Gruneberg, 2018).

Scholars in more recent decades have come to increasingly scrutinize the role of the developer as the most essential aspect of real estate (Fainstein, 1994; Haila, 2006; Brown, 2015). Although, now dated, the work of Ned Eichler on the rise and demise of large real estate-cum-construction companies like Levitt & Sons still remains unsurpassed. To my knowledge It is still the only historical account of the ultimate failure of realtor's capital in the U.S. to bring construction in-house instead of having to hire out construction firms (Eichler, 2003).

There is also a now a substantial of literature emphasizing the financialized character of real estate and development. Here the central focus is on financial fragility caused by property boom-bust cycles (Sassen, 1991; Aalbers, Fernandez, Wijburg, 2020; Blakeley, 2021; Wood, 2004). Harvey's circuit-switching approach where commercial property acts as an outlet for surplus capital has become prominent amongst geographers but has also received criticism for its nebulous formulation (Harvey, 1978; Harvey, 2018, pp.235-238; Beauregard, 1994; Healey and Barrett, 1990). I have already shown in chapter two that the spatial fix hypothesis erroneously assumes a landed class and seems to posit a quantity theory of price for land.

However, to my knowledge the extant literature on real estate and property development takes for granted the existence of real estate firms or what I call realtor's capital.[40] This means the turnover process of realtor's capital through which it performs its functions have not been systematically analyzed in unity. Here in part three then I layout the four stages of the turnover process of realtor' capital through which it carries out seven essential functions and recoups an average profit.

This takes me to my second point. Buildings are a peculiar commodity which have three peculiar demand attributes. The demand for it is segmented, small-scale and irregular. These three attributes necessitate the role of the realtor as the merchant who commissions production. Let us look into this more closely.

In regard to quality, the demand for buildings is segmented or heterogenous. A demand for an office building cannot be met by constructing a retail center instead. Similarly, a CRE firm cannot fulfil the growing demand for high-rise apartments suited to young and single professional workers through developing detached single-family homes for families. One type of property cannot be substituted for another. Nor does the demand for one type of buildings mean the demand for another type. A large office building under construction need not mean there is automatically also demand for multifamily apartment complexes. The design of the built space has to meet the requirements of a particular local end-users. The segmented demand for buildings results in the segmented nature of demand for commercial property (Geltner and Miller, 2001, pp.4-9). Therefore, precise knowledge of unmet demand in local market segments is necessary for property development to be a profitable enterprise.

In terms of quantity, the demand for buildings is small-scale owing to local particular uses. Its immobility makes it a non-tradeable good for which the local demand can only be met on land

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[40] The sole exception here is Lamarche who put forward the thesis that 'property capital' or what I call realtor's capital specializes in organizing space (Lamarche, 1976, p. 91). However, space is universal and all encompassing. No single type of capitalist is responsible for spatially organizing the entire economy. Functioning capitalists originate in the circuit of capital not eternal categories.

parcels in the right location. This also makes it a highly nonfungible good (Ball, Lizieri and MacGregor, 2001, pp. 273, 285-286). Consequently, it is produced in small numbers for particular uses in the area. It is not mass produced. A building cannot be uprooted and moved around from city to city until it is sold or leased. It needs to fulfill the demand locally in the area, otherwise, it will sit there being empty. Moreover, buildings as the most common forms of buildings are also highly durable and last for twenty-five years if not longer. This further exacerbates the low levels of demand for new production (Fainstein, 2001, pp. 198). Demand for buildings can be fulfilled for a long-time and this limits the quantity of supply required in future years. Another factor which act as a negative feedback loop is the segmented nature of demand. This further lowers the quantity demanded. Successful sale or leasing requires that an accurate estimate be made of how much quantity of a particular demand will remain unmet in the future once construction ends.

Third, the demand is irregular as it is derived from the needs of local businesses and residents (Sivitanidou and Sivitanides, 2020, pp. 22-25). The demand for a specific type of buildings is entirely dependent upon whether certain firms and segments of the population in an area will expand, contract or remain stable. Succinctly put, the demand stems from the changing patterns of agglomeration. And this dependence on the local economy makes the demand for buildings unstable. This is the case even when there is no boom-bust cycle prevalent in the local area.[41]

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[41] The literature of CRE booms and busts is voluminous and much of its gives the role of unstable demand a leading role in the explanation of CRE crises (Rabinowitz, 1980; Gottlieb, 1976 Renaud, 1997; Pyhrr, Roulac and Born, 1999; Mueller, 1999; Herring and Wachter, 1999; Case, Goetzmann and Rouwenhorst, 2000; Malpezzi and Wachter, 2000; Leung and Chen, 2006; Barras, 2005, Barras, 2009; Rey, 2015). There is also work on distinct characteristics in fluctuations of various CRE sub-asset classes and U.S. regions in terms of vacancy levels, rents and cap rates etc. (Ball, Lizieri and MacGreggor, 2001, p. 208; Wheaton, 1987; Wheaton and Rossoff, 1998; Grenadier, 1995a; Grenadier, 1995b; Voith and Crone, 1988; Chervachidze, Costello and Wheaton, 2009; Chervachidze and Wheaton, 2013). Wheaton and Torto have shown that the real estate cycle has been more pronounced in office buildings where rentals are far more common than in industrial property where owner-occupation has been the long-run norm (Wheaton and Torto, 1988; Wheaton and Torto, 1990). There is also legal scholarship on how the regulatory outcome of the S&L crisis of the 1980s paved the way for the CMBS crisis of 2007-09 (Peters, 2016, 3-14). Finally, there is literature on macroeconomic cycles not strictly restricted to CRE which cause property booms and busts. There is little consensus over a causal framework. Five-year inventory cycles, seven to eleven-year business cycles, eighteen-year real estate cycles, fifteen to twenty-five-year Kuznets cycles and forty-five to sixty-year Krondratiev long-waves have all been posited as explanations (Goodchild, 2016, pp. 24-28). The commonality they share is that

Additionally, then to accurately understanding of the type and quantity of demand the production of buildings also needs to be timed correctly. If an office building or shopping mall are produced too soon they will not have interested buyers or commercial tenant end-users. The capital tied up in the form of buildings as a commodity on the market will not be able to turnover fast enough to provide the average rate of profit. Similarly, if the production of a building is timed too late and the demand is already fulfilled it will too have a very high vacancy rate or remain unsold – possibly forever. For production to be profitable it has to be timed correctly and, hence, is dependent upon expertise in the conditions of the local economy.

Given that the demand for buildings is segmented in terms of its quality, small-scale in quantity and irregular in its rhythms the producers depend on the merchant to commission its production. And because the commodity produced is buildings the merchant in this case is realtor's capital. It is realtor's capital who initiates the various stages of the production of buildings by contracting design and construction firms. Diagram one below summarizes my argument.

Demand attributes:
- **Segmented**
- **Small-scale**
- **Unstable**

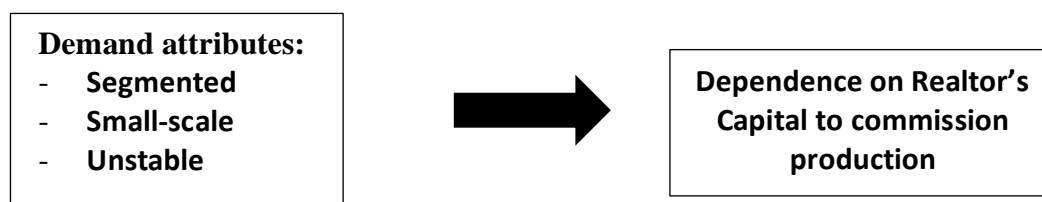➡️ **Dependence on Realtor's Capital to commission production**

Diagram 1 – The demand attributes of buildings and their consequences

When commodities are standardized in quality, mass produced in quantity with stable demand patterns the function of large-scale purchase and sale follows as a result. The large-scale productive capitalist forms the preconditions for the role of the commercial capitalist. In the case

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each tries to explain demand instability in CRE through a framework of macroeconomic instability. For in-depth sociological accounts see Fainstein, 2001 and Weber, 2015.

of buildings where the demand is heterogeneous, small-scale and unstable demand it is the realtor which initiates each stage of production instead. Here the realtor forms the precondition for production. Therefore, the sequence, in the case of buildings is the inverse as it holds for mass produced goods. What Marx speaks of as the historical role of merchant in initiating production when capital has not taken over industry also holds true for buildings today owing to their peculiar demand characteristics (Marx, 1990, pp. 1023; Marx, 1991, pp. 442-449, 453-454; Banaji, 2020 pp. 8-13). Realtor's capital is reminiscent of the merchant that commissioned domestic industry production which helped fulfill mass demand unmet by large-scale factory production (Marx, 1990, pp. 590-591, 595-599, 796, 825-826).

By contrast the demand for buildings is segmented, small-scale and irregular. Consequently, here the dependence of producers upon the merchant - realtor's capital to be commissioned forms the sin qua non of production with few exceptions. Realtor's capital is then best defined as an autonomous subvariant of commercial capital which specializes in coordinating production of buildings and its circulation along with that of land. Realtor's capital is not the proverbial commercial capitalist who has detached from productive capital, becoming independent from it, in the circulation stage. In such a case the commercial capitalist does no more than buy and sell while production can be carried on independently of any single merchant. This also means that the turnover of productive capital occurs independent of any one commercial capitalist and this merchant has no impact on production time (Marx, 1991, pp. 417-420). This is not the case with realtor's capital who initiates production of buildings. As a consequence, the turnover of capital engaged in the production of buildings is entirely dependent upon realtor's capital. And reciprocally, the turnover of realtor's capital is inextricably tied to productive capital engaged in designing and constructing buildings. This mutual dependence means the realtor is obligated to take an interest in lowering production time and the costs of production unlike the common commercial capitalist. This aspect of realtor's capital as a peculiar variant of commercial capital is also evocative of the merchant manufacturers of early capitalism (Banaji, 2020, pp. 85-89).

Realtor's capital instigates and coordinates production through a four-stage process. First, the realtor will have the land parcel and its surroundings surveyed before subsequently purchasing it through his own money. Second, the realtor commissions the design of buildings after carrying out market analyses and feasibility studies estimating the rate of return on the specific project. Third, realtor's capital subcontracts the construction firm which offers the lowest bid to build the buildings as the 'Contract General' (GC) or 'Contract Manager' (CM)'. Fourth, the realtor carries out promotions for the leasing and sale of the finished build to the targeted local demand segment. This four-step sequence of Land – Design – Construction - Promotion may be summarized through the acronym L-D-C-P. The schema below used previously to analyze realtor's profits sums up this four-step process as a unity through which realtor's capital turns over.

$$M \rightarrow C_{land} \rightarrow C_{design} \rightarrow C_{construction} \rightarrow C'_{Realty\ Capital+Land} \rightarrow M'$$
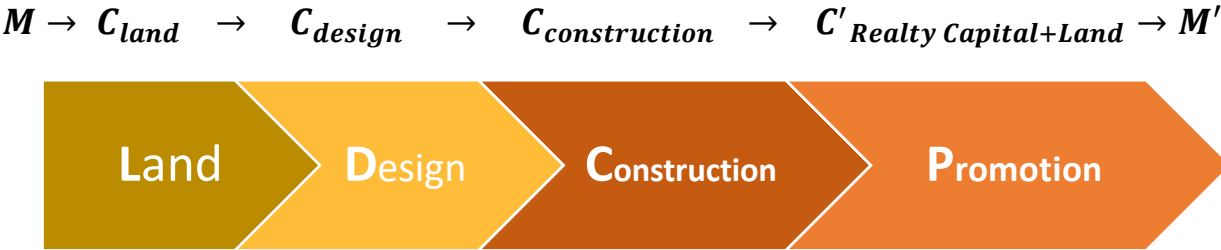

Diagram 2 – The four-stages of turnover of realtor's capital

Through this four-step turnover process Realtor's capital carries out seven essential functions. First, it commissions production through buying land and advancing money for design and construction of buildings. Second, realtor's capital lowers production time by coordinating between the design and construction stages. Third, realtor's capital reduces the costs of production by sourcing the cheapest architectural design solutions and construction contractors for the production of buildings. Realtor's capital performs these last two functions because he advances funds to commission production and, therefore, has his capital tied up in the production process. This is a distinctive hallmark of the realtor's capital as a peculiar sort of

merchant which sets it apart from the archetypal wholesaler who simply purchases mass produced commodities.

Fourth, realtor's capital lowers the circulation time of buildings. Fifth, it lowers the costs of circulation cost of buildings. Sixth, it lowers the circulation time of land upon which the buildings are to be built. Seventh, it also lowers the circulation costs attached to the acquisition of the land parcel and its subsequent sale or leasing once construction is finished. Buildings and land exhibit their own unique varieties of circulation costs and also have peculiar causes which elongate their circulation time. Because of the heterogeneity of land parcels and segmented demand circulation costs and time of commercial property can be lengthy. This occurs because each new unit which is to be built requires a land parcel with the right characteristics, its own market analyses, financial feasibility studies and sales or leasing efforts.

The raison d'etre of realtor's capital within the social division of labor is its specialization in these seven functions. It only exists and expands to the degree it can carry out these functions and make an average rate of profit in return. These seven peculiar functions set it apart from any other sort of commercial capitalist. To reiterate, realtor's capital can be classified as a subvariant of commercial capital which specializes in coordinating the production and circulation of buildings. By virtue of this activity, the realtor also becomes a specialist in the circulation of land.

In order to accomplish the four steps of L-D-C-P realtor's capital staffs an in-house team of market analysts, financial analysts and salespersons. And the realtor also contracts sequentially firms which specialize in design and construction to engage in production. Others such as consultants, lawyers and accountants still play an essential role throughout the process aiding in the circulation process. Similarly, lenders also come into the circulation process adding to its costs and time as a result of negotiations with them. An exhaustive study of various parties involved is outside the scope of this dissertation. As a general guide I have summarized the roles of various contracted parties in table one below. The table has been organized according to the stage (LDCP) at which a firm enters into the process which are listed in the first column.

L-D-C-P Stage	Profession	Role	Production / Circulation Cost
Land	Land Surveyor	Contracted to draws the legal of the site with details of boundary markers when the site is purchased.	Production Cost (Purchase)
Land	Soil / Geotechnical Engineer	Contracted to determine the load-bearing capacity of the soil layers onsite.	Production Cost (Purchase)
Land	Marketing Analyst	In-house analysts of the realtor firm who specialize in market studies which hone in on a particular demand segment.	Circulation Cost (Sale)
Land	Financial Analyst	In-house analysts of the realtor who carry out the feasibility study estimating the rate of return.	Circulation Cost (Sale)
Design	Architect	Contracted to draws up the master blue print for the buildings.	Production Cost
Design	Landscape Architect	Contracted to design all the external features of the site such as pathways, lighting, etc.	Production Cost
Design	Land Planner	Contracted to organize the use of the site by designing where buildings and objects will be placed	Production Cost
Design	Structural Engineer	Contracted to assists the architect in developing the master blue-print	Production Cost
Design	Civil Engineer	Contracted to work with the architect to design utility services (sewers, water pipe placements, electricity, gas, etc.)	Production Cost
Design	Mechanical Engineer	Contracted to design the HVAC system and plumbing.	Production Cost
Design	Electrical Engineers	Contracted to design the electrical systems	Production Cost
Design & Construction	Lenders	Interrogates the feasibility of the project before lending money for construction to the realtor. Monthly meetings afterwards during construction stage upon which the monthly loan draw is stipulated.	Circulation Cost
Construction	General Contractor / Contract Manager	Contracted party which is responsible to the realtor for construction.	Production Cost
Promotion	Marketing Team	In-house employees who promote the project to the targeted demand segment	Circulation Cost (Sale)
Promotion	Property Management Service	In-house staff or contracted companies responsible for maintaining the property after construction is complete.	Circulation Cost
All four stages	Consultants	Contracted to advise on the design and construction costs, site transport accessibility, environmental impact and public relations.	Circulation Cost
All four stages	Lawyer	Hired to check the land title, draws-up and scrutinizes all contracts.	Circulation Cost
All four stages	Accountant	In-house professional bookkeeper.	Circulation Cost
All four stages	Appraisers	Contracted as third-party specialist who provide estimates of land-value in current use and projected value of the new property once built.	Circulation Cost

Table 1 – The various parties commissioned and internally hired by Realtor's Capital (Kone, 2006, pp. 6-8, 83-93, 126-128; Miles, Berens and Weiss, 2000, pp. 38-53, 338-340, 353-356 357-360).

This table only serves as a stylized schema to illustrate the major roles within the property development process. It does not claim to be representative of every messy detail of the development process where various stages and parties might be working together all at once. I also want to acknowledge other parties involved usually from the local community which act as informal watchdogs throughout the entire process. Designers such as land planners, engineers and architects in real life work together with one another with there being much back and forth between them and the main contractor responsible for construction.

The point of the table is here is to outline the role of realtor's capital as a merchant who through commissioning and coordinating the various stages of production. Given that the production of buildings is a highly fragmented process realtor's capital plays the role of the central nervous system which coordinates the entire process.

The outline for the rest chapters in part three is as follow. There are four chapters with each chapter separately dedicated to the four stages of land acquisition, design, construction and promotion which comprise the turnover process. In chapter eight, I analyze the first stage of the turnover process and show how the realtor lowers the circulation time and costs attendant with land acquisition. In chapter nine, I analyze how realtor's capital aids in lowering the circulation time and costs as well as production time and costs in the designing of buildings. In chapter ten, I detail how realtor's capital curtails the production time and costs as well as circulation time and costs in the construction of buildings. Chapter eleven covers how the realtor lowers the circulation time and costs associated with the vending of commercial property as a whole. Finally, I end here with considering five aspects of the fetishism of commercial real estate.

Before I carry on I would like to be explicit as to why I prefer the term 'realtor's capital' to 'developer'. I think the term realtor's capital is better suited to conveying the origins of the realtor

in its relationship to immovable property or real estate. Moreover, the term also signifies the unity in the functions of the real estate firms even when they are not developing a new project but just selling or leasing one of the current existing stock of buildings.

Chapter 8: First stage of turnover – the realtor buys land

Section 8.1 - Introduction

My seventh observation was that realtors specialize in acquiring land. I conceptualize this as the first stage of the turnover of realtor's capital. The lack of analysis of this first stage of the turnover process is what forms seventh lacuna of urban rent theory. In this chapter I fill that void.

In the turnover sequence site acquisition naturally forms the first logical step and so this is where I begin. The land parcel here is itself a presupposition for the production of a new unit of buildings and, therefore, logically also precedes the commissioning of design as well as construction firms. Moveable commodities as a prerequisite for their production do not require the purchase of an additional piece of land. Labor-power and capital suffice, and no new vacant land is needed. Buildings are the opposite, as the acquisition of land forms the basis of its production. Therefore, it makes sense to treat land acquisition as the first stage before moving onto the design, construction and promotion stages.

The realtor initiates the property development process through the acquisition of land at its wholesale value. In the U.S., usually a contract to buy up a site will be composed of three periods between a realtor and the present landholder. The first period acts as the allotted time within which the realtor can return the plot to its owner and be entirely refunded. In the second phase, if the realtor decides not to purchase the site he will lose the capital he deposited with the landowner. Finally, in the third period the deal is closed with the purchase finalized (Peiser and Frej, 2003, pp. 64- 67). Another possibility is to buy a land-option contract which gives the realtor the choice but not the obligation to purchase a site within a certain time period (Miles, Berens and Weiss, 2000, pp. 232-233). And it may be necessary that both types of transactions are repeated for projects where 'land assembly' is required where the realtor is forced to negotiate with several adjacent landholders to form a contiguous site, so the buildings can be produced. There are then a variety of possibilities how a site is accrued by the realtor.

Nevertheless, before actually purchasing the land the realtor needs to find land available for purchase and, secondly, determine if its development would be a lucrative venture. These form the two subphases of land acquisition. First, the realtor searches around for a plot of land to buy. Second, the realtor looks to carry out market and financial analysis of developing the property to see if he will make the average profit. Only afterwards will he bid on the land.

Section 8.2 cover the first part of the process where the realtor searches for a suitable location. This is where the turnover cycle of realtor's capital begins through the advance of money for land. The purchase of land generates circulation costs. And the heterogeneous nature of land here elongates circulation time and costs of land acquisition. The realtor as a specialist intermediary minimizes the circulation time and costs. The holding of land and its predevelopment also do increase circulation time and costs, but I do not cover them here.

Section 8.3 looks at the second part of the process where the realtor after having found a suitable site carries out market and financial feasibility analyses. Through market studies the realtor looks to hone in on a market segment with unmet demand in order to lower the circulation time and costs of vending the buildings and land. However, the market study in itself lengthens the overhead costs and time of commercial property borne by the realtor. Subsequently, the realtor through the financial feasibility study estimates whether the enterprise will yield the average profit. This is how he approximates the maximum bid he can make for the wholesale value of the land and the wholesale price of production he can pay for buildings. But the financial analysis also adds to the circulation time and overhead costs. Section 8.4 then closes out the chapter with a summary and anticipates the next stage of the turnover.

Land acquisition acts as a precondition to the production of buildings so the first step to look for a suitable location to initiate development. The time required for the acquisition of land can be considered its circulation time while the costs required to purchase it besides the price of the land parcel itself comprise a portion of its circulation costs. The circulation costs and time can be quite lengthy due to the heterogenous characteristics of land parcels. This leads to the sites with favorable characteristics already being bought-up or put in under use.

This heterogenous character of land is owing to three reasons. First, the geophysical features of a site vary immensely. These include the soil composition, slopes and hydrology. Second, there is the social aspect of the properties and built environment surrounding a site that add another layer of heterogeneity to land parcels. The specific shape, size, noise-levels, visibility, transport connections and accessibility of utilities of each site are different. Third, the land-use regulations in an area and statutory limitations of the use of the specific site itself come into play. This means the title of each land parcel requires inspecting itself in order to determine any legal constraints on what can be built or if there are any other claims on the property.

In the rest of this section I will detail how each of the three aspects of site heterogeneity adds to circulation time and costs attached to land acquisition. Given that the realtor has to advance his own money for acquiring land he is forced to minimize the overhead costs which accompany site procurement. Realtor's capital then lowers the circulation costs and time tied to the purchase of land by specializing in research and data collection of sites within a locality.

I will begin with the geophysical features of a site which can be subdivided into the geotechnical and topographical features which increase circulation time and costs. After locking in a site, the realtor will need to commission a geotechnical engineer to determine the load-bearing capacity of the soil and what types of physical construction are possible there. In terms of topographic constraints, the slope gradients which obtain at a site are crucial. For example,

buildings in a wetland area will be vastly different due to relatively limited availability of land which can be built upon. Other important topographic features which require assessment are whether it is located in a in run-off drainage or flood plain. (Kone, 2006, pp.85-93, 123-144).

Hydrological issues which need to be determined with precision are fresh-water availability and water tables themselves (Burchfield, et. al., 2006, p. 589). In the Southwest, water availability is restricted to a far greater degree than the Pacific Northwest. Moreover, if the soil holds sulfate ions within it will erode the concrete (Neville, 2004). If the realtor does not pay attention to these aspects early on during the site acquisition phase it might mean a much costlier construction phase later if not failure of the project.

Buildings are a commodity which must be produced on site (with few exceptions such as manufactured homes) where they will also be sold or leased. Therefore, the geotechnical and topographical factors have a much larger impact on its production in comparison to other goods. One soil type's load bearing capacity will be very different than another and is likely to occasion higher costs (Miles, Berens, Weiss, 2000, pp. 227-228). There is a growing literature on the topic within urban economics documenting the association of various geographical features with higher building costs across the United States (Burchfield, et. al., 2006; Combes, Pierre-Philippe, et al.; Malpezzi, 1996; Malpezzi, Chun and Green; 1998, Saiz, 2010; Rose, 1989a; Rose 1989b). The assessments of such characteristics carried out by a geotechnical engineer then form a component of costs attached to land purchase. They are, therefore, a circulation cost.

Because buildings require to be built onsite variations in geophysical conditions mean disparities in the socially necessary labor-time required to produce otherwise indistinguishable buildings in one area versus another. Assuming profit rates equalize, then the higher socially necessary labor-time needed to build an identical five story office building in area A versus area B will express itself in a higher cost-price in area A versus area B. This means the average share of profit tacked onto the building cost-price in area A will be proportionately higher to area B. Therefore, prices of production for an identical five-story buildings in area A will be higher than

area B. In sum, due to differing soil and terrain conditions, the prices of production of even identical forms of buildings diverge from one area to the next. I will move onto the next point. Therefore, the realtor very early on needs to determine which sites will be the most suitable for construction before a local market segment has been targeted.

The heterogeneity of geophysical characteristics naturally leads to a longer period of searching for sites as well as examining their natural properties. This process adds to the circulation time and costs of land and, thereby, buildings. Realtor's capital in turn as a specialist intermediary keeps track of various geophysical characteristics of land parcels in a vicinity. This process of data gathering aids in lowering the circulation costs and time with land acquisition.

The second layer of heterogeneity of a land parcel derives from the property claims and the built environment which surrounds it. The shape, size, noise-levels, visibility, transport connections and accessibility of utilities are of paramount importance when it comes to site selection as each plot of land will come with its own idiosyncrasies. Let me take each aspect in turn.

The shape of a land parcel is outlined by the built environment and claims to land surrounding it which act as a constrain on what can be built on it in the future. This is because the shape of a site does rule out certain uses while not others that it could be put towards. For example, a thin long strip of land is of no use for producing a shopping center, but it could be of use as a private parking space for nearby businesses and their customers. If an existing landowner is not willing to sell his plot to a realtor for the sake of a new development, then the entire project might very well be obstructed. In situations where land assembly is required, one particular landlord abstaining from selling to the realtor may result in configuring the entire project's physical dimensions around the 'holdout' (for a historical collection of such instances in New York City see Alpern and Durst, 2011).

Similarly, the size of the land parcel also restricts what can and cannot be built. Parcel sizes generally grow with distance from the CBD as land is cheaper and less built-up (Colwell and

Munneke, 1997). However, in each case there needs to be a determination as to whether a land parcel is of adequate size and shape for a specific commercial use such as a strip mall, parking lot or office building. In cases where the realtor is unsure of the boundaries of the site he will commission a land surveyor which is a distinct profession within the field of engineering specializing in cartography of property perimeters (Kone, 2006, p.126). The payment made to the land surveyor is a circulation cost of acquiring land.

A plot of land perfect in shape and size for a strip mall but tucked away between several blocks of industrial and warehousing space is not going to do well as little traffic in the area will be able to view it due to other buildings physically obstructing its sight. Site visibility matters if it is to be leased or sold faster. Moreover, if the site will be used to build retail stores it needs to be located in such a way that it can attract the eye (Peiser and Frej, 2003, p. 314). Such advantages mean more customers coming down to shop and, therefore, lower circulation time of goods being sold. Realtors are aware of how surroundings of a land parcel can accentuate or inhibit its visual accessibility to passersby. However, the type of buildings to be constructed plays an essential role here. For example, a chemical production plant does not need to have visual accessibility. Visibility is just one facet, another is the transport accessibility of a site.

A site is of little use if it is next to the highway, but the closest entrance is several miles down the road. In this case, the building will get all the noise pollution without any of the benefits of less transportation and travel times. Being close by to well-connected to important transportation arteries as well as routes to an airport within an area is of major importance (Pesier and Frej, 2003, p. 222). Another common example is strip malls which are a block behind a major transport artery in a neighborhood. Such strip malls will be known to the local residents but will not attract travelers and consequently the circulation time of their goods will rise. Realtors know the value of not just a good location but an actual connection to major transport arteries in an urban setting and try to keenly stay up to date with land parcels which are being sold or lie vacant.

Being close to such transport routes and having unblocked visibility usually also means that sound travels uninhibited which can be detrimental for office firms as well as residential buildings. An advantageous site will then be of such a size and shape that while being linked to a local major road its depth still allows for noise levels to be reduced by trees, hedges and distance (Peiser and Frej, 104). However, sound buffering may mean higher landscape architectural costs in the design phase.

The final point in terms of the built environment is the accessibility to utilities of a site in terms of internet, gas, electric, sewage and water connections. If such adequate connections to a site are not available this means the realtor will have to now have these built whether its sewers, sceptic tanks, water piping or extension of the electric grid (Miles, Berens and Weiss, 2000, pp. 224-225, 228). This obviously means additional out of pocket costs for the realtor and may make the overall project prohibitively expensive.

Such features demonstrate that property claims and built environment which surrounds a land parcel adds an additional layer of heterogeneity due to social idiosyncrasies. This increases the costs and time required to locate a parcel with relatively advantageous characteristics within an area. The ideal parcel would allow for the design and construction of all different types of buildings such as offices, retail, industrial or multifamily rentals. However, in practice the constraints of the land limit what can be offered from building on top of it. Realtors' capital by specializing in data collection of potential sites lowers the circulation time and costs that arise from the property claims and built environment around a plot of land which impact its shape, size, visibility, transport access and utility connections.

Third, the specific combination of local land-use regulations and government policies further produce heterogeneity in sites available for development.[42] Although, these costs are themselves incurred in the predevelopment phase they add to the circulation time and costs of

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[42] For a comprehensive overview of American zoning see Berke, P., et. al., 2006.

land acquisition as a thorough knowledge is required of the land-use regulations in an area before if a development project is to succeed.

Zoning ordinances wall off one area for a specific type of use only and also put restrictions on what type of buildings may be constructed. With the notable exception of Houston, Texas zoning is universal in all major urban centers of the United States (Fischer, 2015, pp. 307-312). The three major categories of zoning are residential (meaning single-family and detached), commercial and industrial. American zoning laws have always been more puritanical in their outright separation of these three legally designated categories in comparison to European ordinances. Moreover, American regulations create a rigid taxonomy between low-density detached single-family home, attached homes and high-density built up units with the result being a low-density urban sprawl unlike any other (Hirt, 2014, pp. 20-25, 156-163). Land-use regulation in the U.S. is an overriding factor in determining urban form (for a comprehensive analysis see Talen, 2012). No realtor firm can gain planning permission without strictly abiding by these codes as well as coordinating with the right set of local authorities and homeowner associations. Trying to skirt around the corners of theses codes is dangerous for the realtor and is likely to lead to lawsuits filed in local courts which might hold-up construction for a few years.

Additionally, an intricate knowledge of local environmental regulations is required when purchasing a land parcel. This means the realtor needs to pay attention to pollutants contaminating the air, water and the soil. Noise ordinances as regulated by the EPA also restrict what can be built in a certain area. Another common concern in construction of buildings in the U.S. is radon gas which is radioactive yet odorless and colorless and known to cause cancer. A land parcel located in an area where radon levels are determined to be dangerous radon resistant construction techniques will be preferred if not required (Kone, 2004, pp. 187-192). Since the passing of the National Environmental Policy Act (NEPA) in 1970s there has been tighter environmental regulation of the production of built environment in the form of land preservation within developments, fees and outright vetoes of certain types of developments (Fischel, 2015, pp. 203-208, 283-285 363-368). Building codes further create differences in construction costs

(with California leading the way and states like Texas proudly trailing far behind). Furthermore, if the site is located in an earthquake zone or permafrost special construction requirements for earthquake zones and permafrost regions (Kone, 2004, p.131).

Similarly, most localities make the permission process for constructing and occupying a building contingent upon 'development impact fees' or other direct construction of infrastructure which has to be undertaken by realtor's capital (Miles, Berens and Weiss, 2000, pp. 260-264;).[43] The exaction of these development fees differ from one area to the next and are tied to the overall local infrastructure spending policies. Therefore, in order to successfully build on a land parcel after its procurement the buyer needs to have an in-depth-knowledge of not just the regulatory policies at the local level but also infrastructure spending carried out by the county or city government.

Given the manifold array of regulations once a site has been purchased the correct type of building permits need to be filed for. Planning approvals depending on the area may be required at the local, state or federal level involving multiple agencies such as the EPA, local planning boards, etc. This process adds to the circulation time of land after its purchase. Capital may be tied up for a period of two to four years in states such as California before all planning approvals are given. Alternatively, states such as Texas this process will be much shorter given the laxed land-use regulations.

Finally, there are the circulation costs attached to the land title itself. The realtor through his lawyers and titling companies needs to check whether there are any claimants, liens or other deed restrictions on the premises which will hinder development. The costs of this title inspection also form additional circulation cost tied to land due to its heterogeneous characteristics.[44]

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[43] For an in-depth overview see Nicholas, Nelson and Juergensmeyer, 1991
[44] For a critical look at title insurance in the U.S. see Eaton and Eaton, 2007.

As a whole then the three aspects of the natural properties of a site, its surrounding built environment and properties; and its land-use regulations limit the opportunities for development. Realtors as intermediaries create databases of potential sites for various business, thereby, reducing costs for them in the process. They specialize in collecting data on the geophysical properties of a site and its social characteristics in terms of its surrounding built environment and adjacent property. Finally, realtors are leading experts in understanding and navigating the multiple layers of land land-use regulations which exist for a particular site (Miles, Berens and Weiss, 2000, pp. 222- 225). This unique set of skills allows them to lower the circulation time and costs associated with site purchase. The currently ongoing 'proptech' revolution is leading to the use of big data that will further aid in the lowering of circulation costs and time attached to land acquisition.

Section 8.3 - Market Demand and Profitability is Estimated

Once a suitable location has been found for the new development the realtor initiates a 'marketing study' to hone in on a specific market segment. If unmet demand in a market segment is found this is followed up with a financial feasibility analysis to gauge profitability of the venture. Each new project requires its own market and financial analysis because of the peculiar demand attributes of buildings in comparison to mass produced commodities. Their demand is segmented, small-scale and unstable.

Market studies begin at the furthest remove with a macroeconomic analysis of the economy which homes in on the aggregate supply and demand for a type of commercial property such as retail, industrial or storage as well as the macroeconomy more broadly (Sivitanidou and Sivitanides, 2020, pp. 6-11). This is because demand for any particular type of buildings is highly cyclical and prone to boom bust cycles at the macroeconomic level (Ball, Lizieri and MacGreggor, 2001, p. 208; Wheaton and Torto, 1988; Wheaton and Torto, 1990; Wheaton, 1987; Wheaton and Rossoff, 1998; Grenadier, 1995a; Grenadier, 1995b; Voith and Crone, 1988; Chervachidze, Costello and Wheaton, 2009; Chervachidze and Wheaton, 2013; Barkham, 2013).

Therefore, all localities to varying degrees will be affected by the larger national economic condition. If an economy is about to head into a recession it is ill-advised to begin development as employment will decline and, thereby, the demand for space such as offices (Ibanez and Pennington-Cross, 2013). The demand for Industrial and storage also declines if employment decreases. And as disposable income falls off so will consumption, consequently, negatively impacting the demand for retail spaces (Sivitanidou and Sivitanides ,2020, p. 244). Also, interest rates are key to projecting loan repayments for any project as well as leasing space, so realtor attempts to make educated guesses on future fluctuations. For the timing of development to be correct then a relatively accurate estimate of the prevailing macroeconomic conditions is required.

Following the macroeconomic study, realtors carryout a study of the local metropolitan or rural micropolitan economy to analyze the specific regional trends of supply and demand (Sivitanidou and Sivitanides, 2020, pp. 9). The point is to shed light on the changing patterns of industrial agglomeration and population demographics.

As buildings are a heterogenous good, realtors estimate the supply trends of various property types by estimating the current stock and the amount under development which will add to commercial space. This essentially means raw data on how much industrial, retail, logistical and other forms of commercial real estate there is and how much is currently being built. Estimates of property values, rents and capitalization rates of different types of CRE in a conurbation also need to be estimated here. (Sivitanidou and Sivitanides, 2020, pp. 41-52).

Once the supply has been estimated the realtor has to measure demand. The demand for real estate is derived from patterns of agglomeration and as agglomeration patterns are always in flux so is the demand for various types of buildings.

Therefore, realtors gauge the regionally unmet demand for each property type by collecting data on unsold inventory of buildings as well as changes in the occupancy levels of leased building (the inverse of vacancy levels) of every asset class. As demand is segmented or heterogenous a growth in office employment need not mean growth in industrial plants. Aggregate data here can only allow the realtor to tell whether the local economy is growing faster or slower than the national economy.

Consequently, the demand patterns for each type of property need to be separately estimated. For residential properties and retail properties like shopping malls data on the demographic trends such as varying age group segments and income per capita trends need to be collated. In addition to statistical estimates, realtors also hold interviews of potential customers and hold small focus group sessions (Peiser and Frej, 2003, p. 104). Afterwards the collected data on the supply and demand for an urban economy needs interpretation. Here

specialist knowledge and experience play an important role as to determining what the numbers signal. For example, low amounts of building inventory and high growing levels of occupancy need not mean that in the demand will continue on the same trajectory eventually outstripping available supply. High absorption rates could be indicators demand becoming saturated at a certain level (Sivitanidou and Sivitanides, 2020, pp. 9, 24-29, 55-67; Dudensing and Barkley, 2010; DiPasquale and Wheaton, 1996).

This type of analysis is then repeated on the neighborhood level by the realtor firm where the site has been acquired. And then finally, the market study homes in on the quality level or 'grade' of property types such as office-buildings or retail. Offices in the center of an agglomeration in the CBD will be far newer with technological specificities those several miles away. In such circumstances, a realtor will not be able to make the average profit by attempting to sell the same sort of office building in midtown Manhattan that he might in a further out part of Brooklyn or Queens. The analysis of the supply and demand dynamics of specific grade of a type of property in the neighborhood where the site has been acquired is the final layer of analysis which completes the market study (Miles, Berens, Weiss, 2000, pp. 374). The table below summarizes the market study process succinctly.

Components of a Property Market Study

	Macroeconomic forecast	Metropolitan / Micropolitan Statistical Area economic trends	Neighborhood micro-level analysis	Quality of Property: (e.g. grades A, B, or C)
Market Study (supply-side factors)	National level aggregate supply data forecasts of government and private sources.	Local level estimates of supply absorption rate, current construction, unsold inventory, vacancy rates, current market prices and rents. Property values, rents	Neighborhood level disaggregated data on supply absorption, current construction, inventory, vacancy rates, prices and rents in the neighborhood for the specific	The projected supply for properties of a specific type and grade in a neighborhood. The value of a specific type of property in

		and cap rate estimates are gathered.	property type. Property value estimates are gathered	a building is appraised.
Market Study (demand-side factors)	National level aggregate demand forecasts collected from government and private forecasts	Local level estimates of demand for a specific CRE asset class in a micro/metropolitan area. Disaggregated data on end-users and demographic trends in the region.	Neighborhood level disaggregated economic data gathered on specific targeted end-users within a neighborhood to determine demand segment.	The projected demand for properties of a specific type and grade in a neighborhood.

Table 3 – The levels of analysis of the Market Study (based on impressions from Miles, Berens, Weiss, 2000, pp. 366-367).

Realtor's capital by specializing in market studies helps hone in on unmet demand which is small-scale, differentiated and constantly fluctuating. This lowers the circulation costs and time which would otherwise exist for vending property. The fundamental goal is to have enough information to hone in on a particular market segment as a target group. Next comes the feasibility study which builds upon the market study.

After acquiring land and choosing a specific target market the realtor carries out a financial feasibility study of the specific project. The realtor will only go ahead with the project if it delivers an average profit. Otherwise, the money sunk into the project, thus, far will have gone to waste and the realtor will have to look for alternative developments for the purchased site. The in-house team of financial analysts along with external consultants such as architectural and construction firms play a key part in estimating costs and revenues of the project. The total development costs of the project and leasing or sale value are calculated. The realtor here works backward through estimating the sale price of the finished development in order to assess the highest bid he can put on the wholesale value of the land along with the wholesale price of production he can afford to pay for the building (Peca, 2009, pp. 113-115, 127-132; Havard, 2016, pp. 35-61, 62-79).

As commercial properties of various types have different operating costs (utilities, repairs and maintenance, etc.) an understanding of those is required as well. Data sources of construction costs may also be supplied by industry associations. In the case of office buildings data can be procured from the Building Owners and Management Association (BOMA) and the Institute of Real Estate Management (IREM) (Peiser and Frej, 2003, p. 225). After costs have been estimated the study looks to approximate the amount and timing of the cash-flow over the life of a project. The cost and cash-flow projections need to be tabulated together month by month over the four stages of land, design, construction and promotion in order to gauge solvency. Otherwise, a project might have to shut down half way through due to cash-flow insolvency (Harvard, 2014, pp. 62-79, 80-85).

This is important for lenders who need documentation for not only the profitability of the enterprise but also on how risks will be mitigated which might delay loan repayment or lead to default altogether. Additionally, they want to see if the loan repayment schedule would match funding to the schedule of their own liabilities. The realtor has to convince the lenders in both of these regards (Peca, 2009, pp. 113-121, 124, 127-133; Kone, 2006, pp. 52-54; Miles, Berens and Weiss, 2000, pp. 353-356, 366-367). Given the demand traits of buildings this process is akin to aiming at a moving target through extrapolating current price trends in the end-user market and using historical data for input costs. Realtors use their experience and specialist knowledge as intermediaries of buildings to lower the circulation costs and time which would otherwise exist because of the idiosyncrasies of each project.

<u>Section 8.4 – Conclusion</u>

Land acquisition forms first of the four steps in the turnover of realtor's capital. And this process itself can be broken down into two components. First the search for a suitable location entails circulation costs and circulation time. This is owing to the heterogeneity of land in terms of its geophysical, social and legal characteristics. This necessitates expertise in the purchase of land for property development. And realtor's capital as a specialist intermediary of land is able to minimize these circulation time and costs.

Second, after a site is found the realtor carries out a marketing study to hone in on unmet demand of a precise segment of clients. This is followed by a financial feasibility analysis. The realtor assesses if he can make a normal profit on the project by working backwards from the estimate sale price of the finished development (Peca, 2009, pp. 113-115). Through the feasibility study, the realtor estimates the highest bid he can afford to put on the wholesale value of a parcel of land as well as the wholesale price of production he can afford to pay for buildings. Only if he is convinced he can make an average profit will he go ahead with the development.

This chapter by going into the nitty gritty of the realtor's work in looking for and researching sites shows that he is a functioning capitalist. More specifically, the realtor is a subtype of commercial capitalist specializing in the intermediation of buildings and, thereby, land. Unlike landed gentry, realtors do not prepossess land but rather have to expend time and capital to acquire it. The point of buying land is to develop it for prospective clients and in return garner an average profit. As intermediaries they compete in such activities against one another. Once land has been purchased, the realtor moves to the design stage of the production of buildings. The next chapter analyzes this second stage in the turnover of realtor's capital.

Through my analysis here I have amended the seventh analytical gap of urban rent theory which is its lack of explanation as to why and how realtors specialize in land acquisition.

Chapter 9: Second stage of turnover – The Realtor Commissions the Design

Section 9.1 – Introduction

Once the site has been acquired the realtor now moves into the second stage of his turnover cycle which is design. The design stage itself consists of two steps. The first step is to commission design production by hiring architectural and engineering firms. In section 9.2, I cover how the realtor lowers the circulation time and costs as well as the production time and costs of the process. The realtor function here as the central nervous system connecting fragmented strands of the production process of design.

In the second step, the realtor looks to secure construction loans from lenders by presenting them the projections of costs and revenue as well as risks analyzed in the financial feasibility study. In 9.3, I outline this process and discuss how the realtor specializes in minimizing the circulation time and costs incurred in these negotiations. Lastly, in 9.4 I conclude the chapter with a synopsis. Through this chapter I amend the eight gap in urban rent theory which is its lack of an account of the eight observation – realtor's commissioning of the design process.

Section 9.2 – Design Firms Are Contracted to Produce a Blue-print

Before construction loans can be secured, the realtor has to have a design for the building. The first step in the design stage is then to commission design firms to produce a blue-print upon which construction companies bid to build the project. It is important to highlight here that through this commissioning process the realtor pays the design firms upfront. Therefore, within the costs of design are buried the profits of architectural, engineering and urban planning firms. This labor forms a part of the production process of buildings. The realtor through commissioning design places himself as a middleman between the producer and the final end-user who buys or rents. He buys the design at its wholesale price of production and sells it at its retail price of production. Through the commissioning of design, the circulation time of architectural and design firms is brought down to instantaneity and their circulation costs are lowered as well. As Marx puts it:

'The more that the circulation metamorphoses of capital are only ideal, i.e., the closer the circulation time comes to zero, the more the capital functions, and the greater is its productivity and self-valorization. If a capitalist works to order, receives payment on the delivery of his product…then his circulation time reaches zero' (Marx, 1992, p. 203).

The architectural drawings themselves undergo three stages. First, there is a rough schematic design made by the architect which is highly abstract lacking detail on dimensions, colors, materials, etc. Once approved by the realtor the architect will move onto the second stage of design development. Here the drawing moves towards concretion through detail of dimensions, floorplans, colors and materials used. The final phase is that of highly detailed construction documents which act as the blue print used by the general contractor in the next phase (Peca, 2009, pp. 103-104).

For the final construction documents, the realtor will commission a structural engineer from an engineering firm to work alongside the architect in order to ensure the integrity of the building. It is also common that civil engineers are hired to design the placement of utilities while electrical and mechanical engineers design the electrical and HVAC systems for the building. In

recent decades, landscape architects have emerged as a distinct profession. They are contracted to design the external environment around the buildings such as gardens, fencing, slopes. If it is a large or 'flagship' project with multiple structures then an urban planner will also be commissioned to design the overall layout of the entire site (Weiss, Berens and Miles, pp. 39-45).

The design itself of a building has to meet five criteria. First and foremost, the cost of the design needs to be within the range estimated by the feasibility study and upon which construction loans will be provided. Second, it needs to be able to host tenants with differing needs in terms of their business or residence without one activity hampering the other. Third, the design should not be inefficient in terms of the operating costs of the building which are composed of maintenance, repairs and utilities. Fourth, the design should not be wasteful in terms of the internal layout and should maximize rentable floorspace. Fifth, the design needs to meet the aesthetic needs to of varying sorts of tenants in terms of the internal décor and materials used. I will briefly discuss each facet in turn.

Realtors look to the architect and the rest of the design team to ensure costs are within the feasibility study estimates. Buildings are a heterogenous commodity due to the specific qualities of the parcel of land and the particular type of the unmet demand segment in the locale. This in turn leads to unique designs and variability in productions costs for every development project. Even near identical looking buildings will have their design specificities which are a combined result of coping with idiosyncrasies of the plot of land and particular demand segment. Diagram three below summarizes this part of my argument.

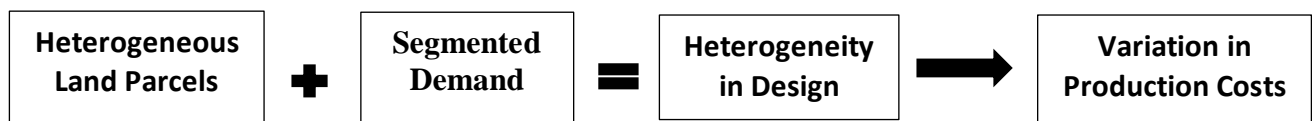| Heterogeneous Land Parcels | **+** | Segmented Demand | **=** | Heterogeneity in Design | **➡** | Variation in Production Costs |

Diagram 1 – The sources and outcome of buildings heterogeneity

Given the peculiarity of the design process of buildings it is not uncommon for disagreements to occur between architects who seek to design the very best product they can and realtors looking to squeeze the design into the estimated costs set out by the feasibility study. This process requires constant back and forth communication and negotiations until the design meets the allocated budget (Brown, 2015, pp. 67-68, 119-128). By sourcing the cheapest architectural design solutions realtor's capital provides the fundamental service of curtailing production time and lowering the costs of production which would otherwise be incurred in construction. More so, the realtor acts here as the 'brains' of the project coordinating amongst design firms in order to avoid conflict and lower production time.

A prime example of this is the realtor facilitating communication between architectural and engineering firms as a blue print is finalized. Otherwise, for each rough design which still requires further fine-tuning engineering firms may commit to fully developed mechanical, electrical and plumbing designs that will need to be scraped as the design undergoes alterations itself. The work of engineering firms in such an instance will also be of no value. In order to avoid such losses engineering firms may slow down the production of final layouts until the architect is finished with a final blue print. The architect, on the other hand, might very well look to engineering firms for aid in the process. The fragmented nature of building production can easily cause such conflicts and waste. And this unnecessarily extends production time of blue prints (Miller et. al., 2009, pp. 10-11). Realtor's capital through coordinating between the various design firms serves an essential function of lowering production time. As the realtor's money is tied up in this process due to commissioning the design firms it is imperative he look to resolve any disputes and miscommunication which can extend the production time of a project.

The second issue design is faced with is the combination of tenants which together comprise the targeted market segment. The design needs to allow for the simultaneous carrying on of different lines of business in close spatial proximity. There can be a large permutation of the types of tenant that comprise the target market for a project. Therefore, design as it relates to the combination of tenants faces four major decisions. First, it has to determine the proportion

of one type of tenants versus another. This aspect means not only choosing between different sorts of activities such as industrial versus storage but also the firm itself. Firms with recognized brand names and oligopolistic market shares are considered 'anchor tenants' which have far more bargaining power in terms of rental lease negotiations or sale than local 'mom and pop' stores. Second, by placing the tenants in certain relative locations to one another the design regulates the flow of traffic amongst the combination of tenants. Third, the design determines to what degree tenants compliment or compete against one another or remain entirely unrelated in terms of their field of business. Fourthly, as a consequence, this has an impact on the lease structure of the building as different tenants will have different lease lengths, etc. The design impacts the lease structure because it narrows the possible range of capitalization rates and risk diversification across various tenant types a building can have. then by This lease structure impacts the financial portfolio of any unit of buildings which shows its capitalization rate and the diversification of risk across various types of tenants. It is only through the lease structure of buildings that it can be compared to other financial assets and so the physical design is of paramount importance (Peca, pp. 96-103; Peiser and Frej, 2003, pp.338-341).

A poor design even in a prosperous area will cause financial losses throughout the lifespan of a development. This can lead to below average profits or downright losses for realtors and naïve commercial tenants or buyers. For example, if a mall has nearly all identical stores or a patchwork of entirely unrelated brands that do not suit the income and tastes of shoppers in the neighborhood and surrounding areas it is unlikely to do well. To give another example, a building with retail stores and offices where there is not enough of a spatial buffer to obstruct the noise produced by customers in the retail area and which impinges on office-work will be considered subpar by end-users. Therefore, the design of the building has to locate the tenants in such a manner that opportunities for retail purchases are maximized without the traffic flow disturbing conference rooms and office work more generally. Moreover, offices in a building also require ease of access and open spaces to be used as waiting lobby areas. In mixed-use developments the issue of the combination of tenants and their relative locations come to the fore.

if the realtor is developing a mixed-use project such as business parks which target markets for industrial, office, retail and logistics then the needs to of tenants from entirely unrelated lines of business need to be met at once. While the risk is diversified across various tenant types in such a case there is also a higher chance that one type of activity creates obstructions for another such as noise from industrial works for offices or traffic from logistical firms causing traffic delays for consumers of retail outlets. Diagram four below provides an example below of project design where the needs of several different types of end-users have been satisfactorily met and the mixed-use facility has been able to carryon through downturns through risk diversification across its tenant portfolio.
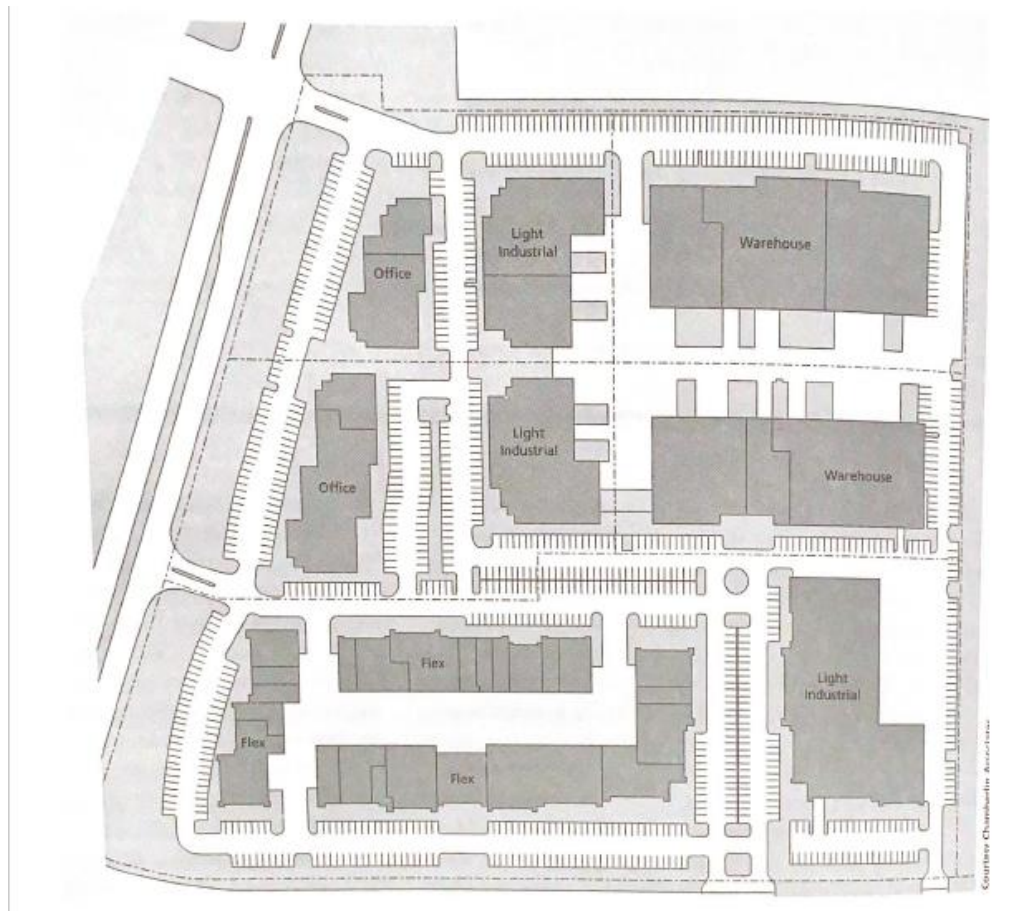

Diagram 4 – Dowe Business Park, a mixed-use development built in the 1980s in Union City, California (Peiser and Frej, 2003, p. 264)

Similarly, multifamily complexes require a combination of specific size and type of apartments from the most basic to luxurious as well. Moreover, accurate estimates need to be drawn for how many apartments to produce for young single individuals versus families in a neighborhood. Moreover, the area as a whole need to be able to afford parking as well as outside space for leisure, relaxation and potentially retail amenities. This aspect comes up against the obstacle of limited space and the need for building up vertically rather than across land. Here market segments also differ in terms of size of household which composes the tenancy. Therefore, a multifamily complex the layout needs to consider the different needs between the target market such as young singles versus families. Each demand segment will have its own peculiarities in terms of the floor plan, landscape architecture, proximity of amenities, and security If the realtor is aiming to meet a certain proportion of each unmet demand segment then the design will have to balance out the needs of these two groups (Peiser and Frej, 2003, p. 171-173).

The realtor uses market studies carried out in the first stage of turnover to guide the production of design in order to target the best combination of end-users at a specific point in time and place. Moreover, experience gathered from previous developments allows realtors to best judge the design which is the most profitable in terms of the permutation and relative location of tenants on the site. This lowers the circulation costs and time associated with selling or leasing buildings once built. I will now move on to operating costs which forms the third criteria.

All forms of buildings have operating costs whether they are owned or rented. Operating costs form an additional expenditure to building rent as these are costs associated with the running and maintenance of a building (see Peiser and Frej, 2003, 250-251). Table 3 below gives a hypothetical stylized account of operating costs of an office building.

Operating Costs	Amount
Water	$1200
Gas	$6000
Electricity	$4599
Building repairs (materials and labor)	$1300
Common area maintenance	$2000
Grounds maintenance	$1400
Snow shoveling	$800
Parking lot maintenance & repairs	$1300
Building security	$3000
Property manager's fees	$5000
Insurance	$3000
Property Taxes	$1100

Table 3 – Office building operating costs (based on example in Peiser and Frej, 2003, pp. 244)

The most crucial factor for the design is to lower the overall costs of repairs, maintenance and utilities (gas, electric, water and sewage) as much as possible. If the design is to be competitive a building has to be within the average band of operating costs within any asset class (office, industrial, retail, etc.). This is because end-users whether owners or renters pay for the operating costs of a unit of buildings just like any other equipment or machine. An owner or someone who annually leases a car has to pay for its gasoline and repairs. Prospective end-users learn from experience and consultation that design flaws of a building will lead to higher operating costs because of higher utility bills and constant need of repair due to poor material use. Moreover, the rise of concern with sustainable and green real estate to lower operation costs has increased the stress on building designs which lower operating costs (see Dermisi, 2017, pp. 247-259).

Therefore, end-users recognize that as a consequence of poor design they have to make additional cost outlays on operating expenses above the market average for a given property. And the final outcome due to above average operating costs will be a lower rate of profit for them due to above average operating costs. End-users will only purchase or rent such a property

at a discount to the average. So, the realtor needs to ensure that the architect along with the engineer design a building which keep the operating costs to a minimal and at the most within the average for a given building type. Otherwise, the project will suffer losses once on the market and there might be an abnormally elongated circulation time necessitated to sell or lease the property in the promotion stage.

The fourth criteria the design has to meet is to maximize internal useable space for its end-users. This is particularly important in CRE where there exist multiple tenants and dedicated areas for common use such as in the case of offices. Four concepts pertaining to internal floorspace measurement are used to compare buildings. The gross area of a building may be considered the total floorspace a building has to offer. A more exact measure of a building's floorspace is given by the concept of rentable area which discounts all vertical shafts such as garbage shoots, stairwells and elevator space per floor. At a further level of precision, the term usable area denotes building area which excludes hallways, lobbies, toilets and other common areas which are publicly accessible. And finally, an individual tenant's or owner's floorspace is the enclosed space which is solely used for their business. As tenants pay a certain amount of rent for the rentable space and a certain amount for their own useable space they look to compare the rentable to usable area ratio. In industry parlance this may be referred to as the building efficiency ratio and calculated as a ratio of rentable floorspace to usable floorspace. Prospective tenants and buyers look to maximize their own usable space and only pay the bare minimal required for common areas shared with other businesses and the public which are denoted under the category of rentable space. Simply put, a building with large lobby and pretty decorated halls risks being inefficient in its use of space and, therefore, leasing or selling at a discount (Peiser and Frej, 2003, pp. 231, 245).

The realtor here once more needs to guide the design production process in order to fulfill the needs of prospective tenants in order to reduce the circulation time for leasing or selling offices once it is in the promotion stage.

The fifth and final criteria that building design has to meet is the décor itself. Structures used for occupation display an incredible amount of heterogeneity in their floorplan, ceiling height, materials used for construction, and aesthetic décor. Each line of business will want a distinct interior decoration. Law firms will have different requirements to tech startups and both of these businesses will still require distinct décor in comparison to a third line of business such a Chuck E. Cheese. Moreover, aesthetic trends in terms of internal décor are everchanging and gradually lead to building obsolescence (Abramson, 2016; Baum, 1991, p. 61).

Therefore, realtor's capital has to ensure that the décor is up to date with the latest aesthetic preferences of market segment or combination of demand segments which are being targeted. Outworn building décor will, otherwise, cause a lack of interest from buyers and will unnecessarily increase the circulation time and costs associated with sales and leasing in the promotion stage. Architects may also to innovate here and it is up to the realtor what is likely to impress end-users and what may only raise eyebrows.

After a final design is agreed upon loan negotiations can be commenced. Each financial feasibility study holds within it a pro forma document which projects future flow of sales and rental revenue from the development. This is presented to construction lenders (Peca, 2009, pp. 113-115, 124-125; Kone, 2006, p. 53). These lenders can of a wide variety such as commercial real estate firms, REITS, investment funds, or fiduciary institutions with stricter lending standards like commercial banks (Peca, 2009, p. 124).

While site acquisition loans are exceedingly rare, loans given out for construction are the norm. Typically, the loan to value ratio for construction advances is upwards to fifty percent. These loans mature with a balloon payment in two to three years' time once the construction is finished while the enterprise is still in its promotion stage. (Peca, 2009, pp. 119-122).

As a result, for the realtor to be successful in negotiations for the construction loan he needs to overcome five hurdles. First, the estimated profitability of the project in the financial feasibility study needs to hold up to scrutiny by construction lenders. The construction lenders know that if the project is not profitable there will be no permanent financing available when the balloon payment on their construction loans is due, leaving them on the hook. It is the norm that lenders test the profitability estimates by stipulating a certain level of pre-leased or presold space of the project before the construction loans are issued. Second, the lenders need to be assured that construction will not be racked by unexpected delays and rising costs above the original allocated budget. Third, the realtor needs to convince construction lenders that there will be no delays with sales and leasing. Fourth, even after these three stipulations have been met by the realtor, construction lenders commonly require a preset commitment by another set of lenders for permanent financing of the project as a failsafe measure. In real estate parlance this is referred to as a 'takeout commitment'. The permanent finance loan pays off the construction loan and then is paid down over a much lengthier period of time. These loans are provided by lenders seeking to match the maturity of their assets to their long-term liabilities, like pension

funds and insurance companies (Peca, 2009, pp. 119-122). In sum, the realtor's fourth hurdle in the lending process is to convince a second set of lenders for refinancing the construction loan in order to obtain it in the first place.

Fifth, the lenders need to be convinced that there are enough sources of funding besides the construction loans in order to make sure the realtor also has something to lose in case things go awry. This means an examination of the 'capital stack' or capital structure of a development project which outlines the debt and equity sources of financing and the order of priority of repayments from the profits made (Brown, 2015, pp. 196-201; Geltner and Miller, 2001, pp. 306-324, 350-371).

In terms of equity, the lenders will scrutinize the realtor's own capital as well as passive investors such as limited liability partners. If it is a development project being carried out by multiple realtor firms as a general partnership, limited partnership or limited liability company then their capital commitments to the project will be investigated in tandem (Knoepfle, 2010). And if there are other construction loans being drawn from different lenders then the terms and conditions of those will also be analyzed. Only if the construction lenders judge the capital stack to be sufficient for retaining solvency will they risk advancing their own loan capital for the project.

Realtor's capital as an intermediary does not only have specialist knowledge of the market of end-users who form the demand for buildings but also the loan capital market for construction. This aids in reducing the circulation time attendant with negotiations while the acquired land site lays idle (Harvard, 2014, pp. 52-53). This is important because holding land idly incurs circulation costs. As Havard writes:

'There are other holding costs with land. These include site security, both passive measures, such as hoarding and fencing, and active ones such as guards and CCTV.' (Havard, 2014, pp. 53)

If the realtor has committed capital to the project before acquiring construction loans by setting aside a certain sum of money, then the circulation time of this capital is also lengthened the longer the negotiations drag on. There are also circulation costs tied to meetings where deals are made as well as the drawing up and scrutinizing of loan covenants by the realtor's lawyer. Legal regulations for documenting and filing such contracts will further increase circulation costs of loan negotiations. Through experience realtors specialize in acquiring construction and permanent financing loans, thereby, curtailing the circulation time and costs of negotiations along with examining draft agreements.

In sum, realtor's capital by specializing in loan negotiations as an essential part of circulation of buildings spares design and construction firms which carryout production from having to commit capital to this process. And as a specialist it more swiftly and inexpensively traverses the process of loan negotiations than it would be the case for construction or architectural and engineering firms. This helps lower both circulation costs and circulation time tied of buildings and land. As a consequence, less money is required from lenders for project completion than otherwise would be the case if there was no realtor.

<u>Section 9.4 – Conclusion</u>

Design forms the second stage in the turnover sequence of realtor's capital. There are two substeps to design. First, the realtor pays the wholesale price of production for the blue-print of buildings. This is done by commissioning architectural, engineering and urban planning firms. In this process, the realtor acts as the central nervous system of an otherwise fragmented production process. He, thereby, lowers the costs and time entailed in producing a design which is in itself also profitable.

With the design and financial analysis ready the realtor turns next to acquiring construction loans. This is an intricate process where the realtor uses his specialist knowledge to minimize the circulation time and costs of loan negotiations. Various lenders will have differing constraints here on what they are able to finance. These discussions then presume a high level of knowledge on the part of the developer of the loan capital market for property development.

Once the design phase is finished and the construction loans acquired the realtor can move onto dealing with construction which forms the third phase in his turnover cycle. Through this chapter I have amended the eight gap in urban rent theory which is its lack of an account of my eight observation that realtor's commission design.

Chapter 10: Third stage of turnover – the realtor commissions construction

Section 10.1 – Introduction

Once the design phase is complete, realtor's capital moves to the third stage of the turnover process which is construction. The construction phase consists of two subparts. The first is the bidding process on the proposed development by construction companies. Construction firms here bid on the designed blueprint with the lowest bidder becoming the contracted party who takes on responsibility for all the construction under the set bid amount. In industry parlance this is referred to as the 'design-bid-build' process. In section 10.2, I cover how the realtor lowers the circulation costs and time involved in the bid process. Moreover, through adept selection of the lowest bidder the realtor also minimizes production costs of the actual construction.

The second part is the physical process of construction which I cover in section 10.3. The realtor pays upfront the costs of construction at their wholesale price of production and holds meetings with the contractor to discuss progress. These meetings lead to the monthly drawing of construction loans (Peca, 2009, pp. 142-148). I will analyze each of these moments in seriatim and discuss the conundrums which arise here. Having advanced money for construction, he now works to minimize the time and costs of production. The realtor becomes the central nervous system of the whole process. He takes up a managerial role, coordinating between the architect, the contractor, subcontractors and lenders. He, thereby, also lowers the circulation costs and time of meeting with lenders amidst ongoing construction.

This situation arises in construction because the realtor is a merchant who deals in the peculiar commodity of buildings for which demand is small, segmented and unstable. The realtor, therefore, cannot simply buy and sell his commodity in wholesale quantities after it has been mass produced. His situation is distinct to that of the proverbial commercial capitalist. Direct producers instead rely on him to be commissioned. This process is akin to the putting out system of merchant manufacturers. Therefore, the realtor has to tie up his capital in production. Section

10.4 closes out the chapter with a summary. Through chapter ten I account for the ninth gap in the literature which is a lack of an explanation as to how and why realtors commission the design of buildings.

<u>Section 10.2 – The realtor commences bidding for the construction contract</u>

I will begin now with the bidding process which comprises the first subphase. There are three aspects of the bidding process I will analyze. First, I will set out the steps in the bidding process itself and emphasize the dangers that arise within it of the enlargement of circulation time and circulation costs as well as production time and production costs. Second, I will adumbrate the changing labor relations in the construction industry which underpin the bidding process and the type of contract awarded by realtor's capital. This will bring into fore the contemporary role of realtor's capital as a contemporary form of a 'merchant manufacturer' when it comes to the construction industry. Third, I will analyze why buildings are a nonfungible commodity which consequently necessitates a bidding process before the commencement of its production. I also consider here why the 'design-build' movement in architecture as well as single-family home construction form exceptions to the bidding process.

The bidding is initiated by realtor's capital through sending out a 'request for proposal' or RFPs to construction companies or contractors in the area for the project. The request for proposal is a collection of documents composed of construction drawings produced by the architectural firm with help from other design firms as well as 'how to' plans for going about the process of construction onsite along with other specifications. The design stage of turnover is sequentially antecedent to construction because these construction drawings needs to be at the very least 'rough and ready' as well as the finances secured before the actual construction is launched. This bidding process may be open to all firms or it can be closed to just a few firms which compete with one another. In either case the lowest bidder is awarded the construction contract. The responses of construction companies to the RFPs look to be as detailed as possible in terms of estimations of costs and itemize expenses following the Construction Specification Institute (CSI) guidelines. Nonetheless, these statements also detail exceptions and exclusions where contractors are unable to provide an accurate assessment of a type of material or labor at the time. Unlike a normal auction, this process is far more detailed. Sending out, receiving and

evaluating proposals usually takes up to several weeks. It is also common for the realtor to summon the bidders into a meeting where their proposals are directly interrogated as well as clarifications requested about their responses (Peca, 2009, pp. 138-139, 143; Lepatner, 2007, pp. 16-19).

It is unlikely that any single construction contractor will carry out all the work of construction themselves. More commonly the lead contractor responsible for the final delivery of the project looks to subcontract out specific jobs to third parties himself. Therefore, the lead construction contractor before responding to the bid sent out by the realtor will himself initiate a bid on specific jobs in construction. The final bid price of the main construction contractor, consequently, depends on the bids he receives from subcontracted third parties. In sum, the bidding process initiated by realtor's capital ignites a chain of bidding processes amongst the contracted producers (Miller, et. al., pp. 15-17, 2009).

Moreover, construction contractors have to include precontract 'bid bonds' in their replies to the RPFs. These bonds act as insurance paid by the bidding contractor to an insurance company which endorses the contractor's ability to be able to carry out the proposed project. In case of failure, the insurance company would have to make payments to the contractor for damages owed to the realtor. Now, if a contractor loses the bid, he also loses money paid for the bid bond. Another bond which might be included in the RFPs is the 'proposal bond' where a contractor is liable for payment to the realtor in case he does not carry out construction after winning the bid. This is necessary because a contractor may partake in several bids within a short of span of time which may overburden him in case he wins multiple bids at once. The proposal bond ensures that if a contractor backs out of the construction contract after winning the bid he is liable to pay the realtor for causing delays, etc. It can also be the case that both the proposal and bid bonds are combined into one. These bonds are peculiar circulation costs of the bidding process which are borne by the construction contractor in order to sell his services to the realtor. Once a bid winner is assigned as the construction contractor for the project by realtor's capital they become responsible for the timely completion of all the construction within the allotted

budget as well as the payment for all subcontracted work (Peca, 2009, pp. 138-139, 143; Lepatner, 2007, pp. 16-19).

This process extends the circulation time and circulation costs of any development project. Therefore, it is, through specialist knowledge about construction contractors and experience from previous bids that realtor's capital keeps both the circulation time and costs associated with this phase to a minimum. Moreover, the role of the realtor as an experienced merchant buyer of construction is paramount in minimizing the costs of production and the time of production through discerning allocation of bids to contractors with reliable track records. Nonetheless, there is a trade-off between elongating the bidding process to ensure an adept contractor is awarded the bid and rushing through the process to lower both circulation time and costs. In the latter case, the realtor risks running into the dangers of delays and running over the allotted construction budget during the construction phase proper due to change orders, unpunctual payment of subcontractors, mismanagement, etc. In other words, the realtor risks raising production costs and elongation of production time if he rushes through the bidding process in order to lower circulation time and circulatory costs. It could result in jeopardizing the margin of profit the realtor is seeking to gain from the project at hand.

This takes me to the second aspect of the bidding process. The realtor has a number of techniques available at his disposal to hedge risks of production cost overruns. First and foremost, is the type of contract awarded to a construction contractor. The construction contract itself is the primary tool here to mitigate losses.

Construction contracts can be awarded on a fixed-price basis as a total lumpsum or per finished unit amount where the profit of the construction contractor is buried within the allotted payment. This kind of contract throws the burden of cost overruns onto the construction contractor. This is because any overruns will eat into his portion of profits which are implicitly buried into the lumpsum payment for the entire project or per unit completed. Conversely, a contract may be explicitly set on a 'costs plus fees' basis. In this case, the contract stipulates a

costs basis plus a percentage fee added on. Here the reverse holds as the risk of construction cost overruns which lower profitability lies with realtor's capital as any additional incurred costs during construction will have to reimbursed with a percentage fee. These are known as cost-reimbursal contracts (Akinci and Fisher, 1998, p.73).

Even in the case of fixed-price contracts prices will commonly fluctuate due to 'change orders' which call for different materials to be used in the actual build than the ones designated in the construction documents by the architect. This stems from the unsuitability of the original design or necessary modifications to the design itself amidst the construction process. These change orders mean that even a construction contractor working on a fixed price basis may charge additional fees for the labor and materials to be used. As a result, the construction budget may increase beyond the original bid-price made by the contractor for a fixed-price contract (Lepatner, 2007, p. 19). Project delays comprise another risk within the physical construction phase itself which increases the production time and, thereby, turnover period of the project, consequently, jeopardizing its profitability. Given the potential for such exigencies it is vital that the construction cost estimates be made within a range of numbers with extra capital put aside in case of such exigencies.

The financial feasibility analysis done by the realtor now becomes pivotal. Property development requires accurately predicting how changes in prices and interest rates will impact construction costs. This is referred to as 'sensitivity analysis' and also carried out for land acquisition, design and promotion costs. The goal is to have a realistic range of estimates. The range of construction estimates gathered at the outset inform the realtor's expectations for contract bids. Since the 1990s, it has been common to use Argus Developer as the prime software to get a range of such estimates and do sensitivity analysis for all the four stages of the turnover cycle (Harvard, 2014, pp. 215-217). Nevertheless, past experience of realtors is crucial in ensuring profitability of a project.

In the U.S., there are two sorts of construction contractors. Those who work on a fixed-price basis and those who work on a percentage fee basis. Traditionally, construction contractors worked on a fixed price basis and were referred to as 'General Contractors' or GC. Increasingly, the General Contractor has become replaced by the 'Contract Manager' or CM who works on a cost-plus fee basis.[45] Superficially, it seems financially unsound that realtors prefer contracts where the risk of cost overruns is not hedged and falls on them instead of the contractor. Nevertheless, this move towards the Construction Manager's cost-plus fee contract from the General Contractor's fixed-price contractors is undergirded by a shift in labor relations in the construction industry beginning from the 1970s. For most of the twentieth century the General Contractor (GC from here on) carried out the vast majority of the construction and subcontracted only minor parts of the overall process. Crucially, the GC also worked with trade unions to subcontract work and represented the interests of these unionized workers to the realtor (Ehrlich, 2021, pp. 5-7; Lepatner, 2007, pp. 19-20, 77-80, 155-157).

These industrial relations began to change in the late 1970s because of the political assault by realtors who had formed the Business Roundtable. The real estate industry argued it was being overcharged due to high costs of labor given the union density in American construction and that it was not allowed to view the books of the GC where construction and subcontracting costs could be analyzed. This led to the advent of the Contract Manager (CM from hereon) who replaced the GC. The CM now worked on a cost-plus fee basis as an agent on behalf of the realtor, transparently sharing all the costs, unlike the GC, and offered a 'Guaranteed Maximum Price'. Although, CMs worked on a cost-plus fee basis with the realtor, they subcontracted construction firms on a fixed price basis. The effect was to shift the burden of project cost overruns onto the subcontractor (Ehrlich, 2021, pp. 5-7; Lepatner, 2007, pp. 19-20, 77-80, 155-157). As Ehrlich explains:

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[45] Sometimes consulting firms which only have a middleman and/or advisory role in construction may also refer to themselves as 'contract managers'. Nevertheless, they are not actually contracted and responsible for the physical construction process. They are not 'contract managers at risk' but rather middlemen between realtor's capital or the developer and the construction contractor who in fact has won the bid and has been hired to build (Peca, 2009, pp. 136). To be clear, whenever I use the term 'Contract Manager' I mean the construction contractor liable for delivering the finished building on schedule.

'the construction manager now worked for a fee rather than a lump sum bid. The burden of risk—the ability to make or lose money on the basis of a fixed estimate—and the responsibility of managing crews had been shifted to the multiple subcontractors and created…an adversarial relationship between the former partners. The new construction managers were essentially service companies that found clients and marketed products produced by subcontractors. Between 1967 and 1997, general contractors' share of direct construction worker employment fell from 35% to 24% of the labor force whereas specialty subcontractors' portion increased from 48% to 63%' (Ehrlich, 2020, p.6)

The CM now looked for ever cheaper methods to subcontract. This meant the rise of seasonal employment, use of undocumented immigrants and a decline of union density along with labor standards in construction. The same workers as before were now relabeled as independent subcontractors. Union density in construction fell from 39.5 percent in 1973 to 13.1 percent in 2005 (Belman and Voos, 2006, p. 70). The construction sector served as the original testing waters for the subterfuge of subcontracting now commonly used by the 'gig economy' to skirt around labor regulations (Ehrlich,2020, pp. 8-15, 23-26). And this assault by realtor's capital on labor through the use of the CM mirrored the setbacks of labor union in other sectors because of the use of subcontracting (Weil, 2005; Weil, 2014).

One of the most unfortunate consequences of the decline in labor protections such as paid sick leave, decent healthcare and onsite work safety has been the rise of self-medication by construction workers through opioid use to relieve pain from work injuries. This regularly results in addiction and death for construction workers. The construction sector today is one of the worst hit when it comes to the opioid epidemic in the United States. It parallels the 'deaths of despair' of blue-collar workers in deindustrialized areas (Roelofs, et. al., 2021; Case and Deaton, 2020). Due to the rise of this model of subcontracting the construction sector tends to have a greater degree of small specialized firms highly dependent on subcontracting. Being laid off after every single job is routine practice (Lepatner, 2007, pp. 50-56; Siniavskaia, 2021, pp. 1-9). This has meant low entry barrier for firms into the sector as the chart below drawn from the National Association of Home Builders (NAHB) testifies:
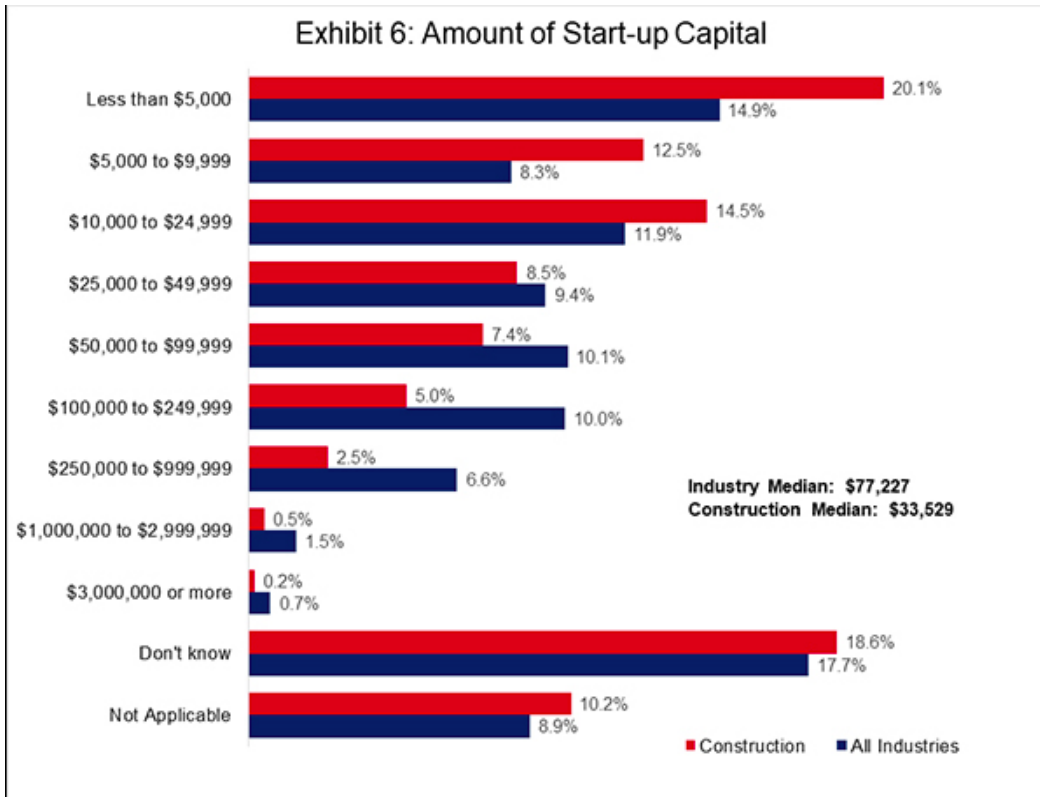
Figure 1 - The lower entry barriers for construction firms (Source: Whetzel, 2017, p.7)

The final result has been a construction sector dotted with small mom and pop style firms with a high degree of craft labor coupled with irregular employment, declining labor standards and a concomitant fall in productivity between 1964 to 2003. By comparison, this high degree of subcontracting in construction is not witnessed in the case of design firms which offer contractual employment and do not lay off employees once their role in a project is finished. Construction firms as a whole tend to be more specialized in singular tasks while design firms rely on diversification to setoff payroll costs of their more regular full-time workforce (Kim and Reinschmidt, 2012, p. 217). Leaving important social aspects aside, the key economic rubric to judge the switch towards CM and nonunionized labor subcontracting model has to be labor productivity. The result here bears out the abysmal failure such a switch has been for the sector. Figure two below shows that productivity in construction in the United States staggered from about 1964 to 1974 and afterwards declined for the next three decades. In comparison, to other industrial sectors this is a remarkable setback as the nonfarm productivity index shows.
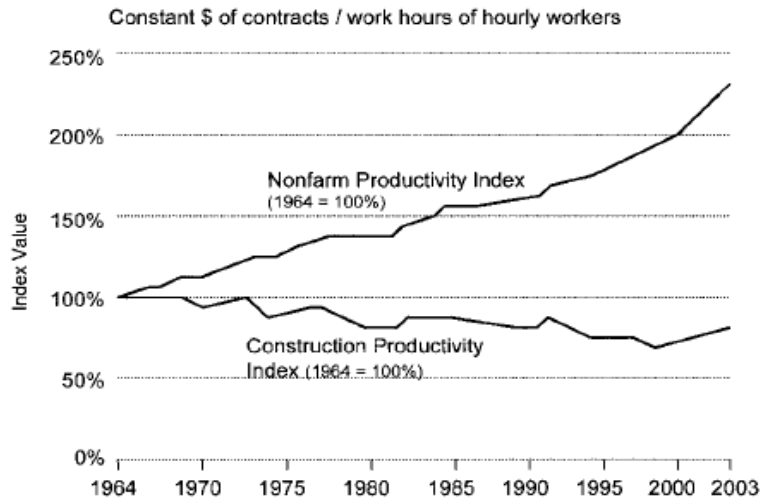
Figure 2 – The decline of productivity in construction because of subcontracting (Source: Lepatner, 2007, p. 37)

Cotemporary CRE literature does incisively point out many problems endemic to the construction sector. For example, it is reliant on the realtor who then has to coordinate the entire project amongst numerous firms as a source of friction and supply-side issues. Furthermore, partnering is done per each new project with new parties and so long-term trust and business relationships are lacking. This incentivizes short-term interest for each party. As a result, adversarial relationship between design firms, construction contractors and the realtor abound (Miller, et. al., 2009, pp. 6-46; Cain, 2004, pp. 1-17, 43-48).

However, almost without exception these works end with the hailing of promoting panaceas such as 'design-build' processes as well as the promises of technology which will supposedly transform the construction industry into something akin to mass manufacture. There is much euphoria about prefabricated manufacture or 'Prefab', construction technology or 'Contech', as well as a host of other innovations which come under the umbrella term of 'Proptech' that seek to overcome dire level of productivity. Amongst Proptech circles there is especially a growing optimism about smart and green building designs. Nevertheless, within CRE business literature there is very little acknowledgement of the failure to the switch towards the CM and subcontracting in terms of productivity or its social consequences. It is a world of Cornucopians suffering from historical amnesia.

Most crucially, these authors by pointing out coordination and partnership problems which stem from the demand attributes of buildings use a constant to erroneously explain changes in productivity. It is seldom admitted that there is evidence to suggest that unionized construction workers who pool their experience and receive training under apprenticeship programs are more productive than their non-unionized counterparts (Allen, 1984, pp. 253-254, 269-273).

This historical assault on construction unions and labor standards also brings up a theoretical question in regard to realtor's capital as a distinct form of commercial capital. It seems that this peculiar type of commercial capital is not only similar to the 'merchant manufacturer' of old but does take it upon itself to push-back the historical gains of labor in construction without directly engaging in production itself. As realtor's capital commissions the design and construction phases of production it also becomes dependent on the production stages of design and construction in order to turnover its own advanced capital. Reciprocally, production firms in this line of business are dependent on the realtor to turnover their capital. The employment policies of design and construction firms, albeit in different manners, are shaped by their dependence on the realtor as a merchant who commissions them (Kim and Reinschmidt, 2012, p. 217).

Nonetheless, it is in the interest of the realtor to reduce the costs and time of production time to an absolute minimum. Experience has shown that realtor as a special kind of merchant will takes it upon himself to push back the gains of labor in similar fashion to how a factory owner would. This situation is entirely unlike that of the common commercial capitalist who simply buys and sells en masse repeatedly while production carries on independently of him. There is no need here for the wholesale merchant to concern himself with reducing production time. This wholesaler buys from many and sells to many remaining exclusively dedicated to the sphere of circulation and being entirely detached from the production sphere (Marx, 1991, pp. 417-420). Given the evidence, it would be accurate to say that the realtor's role in property development

has strong affinities to the merchant manufacturer of the putting out system, who also coordinated production (Banaji, 2020, pp. 89-98).

Having adumbrated firstly the bidding process and, second, the labor relations underpinning it I will now analyze the third aspect. The question I look to answer is why there is a need at all for a bidding process in the construction stage. In the literature I have come across on real estate development and the economics of construction the peculiarity of the bidding process seems to be taken for granted. Nevertheless, in the case of mass-produced commodities, market competition determines price once the good is on the market. And this competition is itself determined by competition between producers who look to minimize the abstract socially necessary labor-time congealed in a commodity. if a commercial capitalist, subsequently, purchases commodities in bulk, they also sell them in mass quantities. The existence of commercial capitalists as mass-sellers of commodities is predicated on large-scale production. Their existence follows as a consequence. These merchants do not commission production nor is there a bidding process amongst producers to determine costs. But in the case of buildings and its merchant – realtor's capital - the situation is different. It is worth dwelling on this aspect in order to understand the nature of buildings and how that impacts its production and circulation.
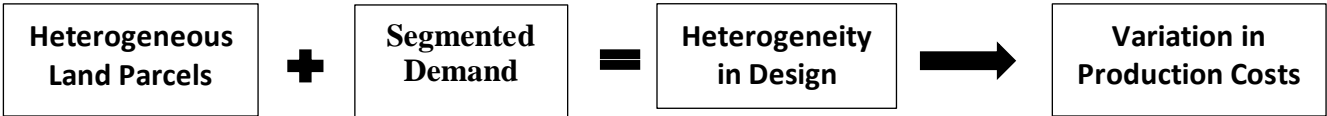
Let us recall that the demand in the case of buildings is small-scale, segmented and unstable. Therefore, the merchant – realtor's capital – has to initiate the production process through commissioning the producers. Here this autonomous subvariant of commercial capital forms the presupposition of production. And this order of events is the exact opposite to what holds in the case of mass-produced goods. Nevertheless, the merchant commissioning production does not automatically induce a bidding process amongst its producers. Many firms in various lines of business work to orders or are subcontracted but need not take part in a bidding process (Weil, 2014, pp. 99-101).

The commissioning of the producers by realtor's capital then only forms the necessary and not sufficient condition for the peculiar bidding process which precedes the actual physical

construction of a building. This begs the question as to what is unique about buildings that requires a bidding process before its production. The answer lies with the peculiar qualities of buildings analyzed before. In the case of buildings, production costs vary greatly due to the heterogeneity of design. Moreover, this heterogeneity of design itself owes to the idiosyncratic characteristics of the plot of land it is built upon and the local demand segment which is being targeted. This argument was outlined above in diagram one in section 9.2 on page 244.

The peculiarities of land sites and heterogenous demand lead to unique design outcomes. An office or industrial building which is closer to the center of a CBD will have different costs to one which is farther due to the differences in design. And this design difference will itself be a result of differences in both plot size and demand segment targeted. It is because of the heterogeneity of design amongst and within various types of buildings (office, logistics, multifamily and industrial, etc.) that lead to variations in production costs. And it is these variations in the costs of production as a result of heterogenous design which necessitate the bidding process.

Heterogeneity in design in most types of buildings also means a high degree of non-fungibility. Therefore, price comparisons to the currently existing stock of buildings or to those under construction which are located in different areas or serving different clientele are useful but not sufficient on their own. Therefore, the bidding process is the sole method available to realtor's capital to pit construction firms in price competition against one another to concretely determine the cheapest cost of production the market currently offers for a specific architectural design before construction is commenced Given heterogeneity of design and, consequently, a high degree of non-fungibility, competitive bidding amongst construction contractors plays an essential role in determining the socially necessary labor-time of buildings. Below is a schematic representation of this argument and how it expands on the propositions outlined above.
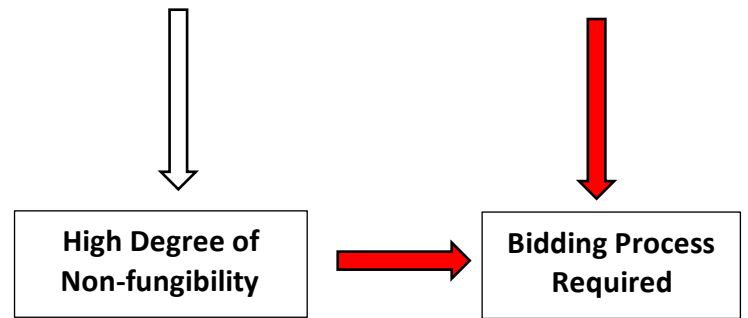
| **Heterogeneous Land Parcels** | ➕ | **Segmented Demand** | ＝ | **Heterogeneity in Design** | ➡ | **Variation in Production Costs** |

| High Degree of Non-fungibility | → | Bidding Process Required |

Diagram 5 – Variation in production costs of buildings necessitate the bidding process

An alternative to the design-bid-build process is the 'design-build' process increasingly offered by architectural firms in the United States. Architectural firms which offer the design-build process as an alternative combine both the design and construction phase of production under one roof. Because in this case a single architectural firm is responsible for the entire development project from its design to finished construction the bidding process is eliminated, thereby, supposedly lowering overall costs. [46] Nevertheless, given the variability of production costs of buildings, the realtor still has to compare the costs of contracting one design build firm versus another as well as also compare them to the costs of the traditional design-bid-build options available. The insight of Barry Lepatner who styles himself as a representative of the standpoint of realtor's capital is instructive here:

'Design-build projects align the economic interests of the architect and contractor. In so doing, it removes the architect from whatever limited role it might have played as an intermediary or, or owner's representative during construction' (Lepatner, pp. 87-88, 2007)

In other words, the realtor still has to determine the best price in the market for a particular set of design and construction. This lack of knowledge of production costs exists because of the non-standardized design of buildings. And this reality cannot be simply overcome

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[46] The official website of the design build association may be accessed here: https://dbia.org/what-is-design-build/

by a single firm offering a streamlined 'design-build' process. Even if the realtor has opted for a design-build model he will still have to contact other design-build firms who operate in the locality to determine the cheapest market price possible for the design and construction. It would make no more sense for a realtor to just simply agree to a price offered by a single design build firm than it would for him to agree to the bid price of any single construction contractor without having solicited responses from others. Therefore, it is hard to see how design build firms can really cheapen the circulation costs and time of the bidding process as these are endemic to buildings.

Design-build firms simply switch over the bidding process to themselves from independent construction contractors. In practice, design-build model is mostly deployed for 'turnkey' projects which are far more standardized requiring less customization in terms of design and where the cost of production and production time is easier to estimate. Such turnkey projects allow for 'fast-track' construction to be set apace even before the design has been finalized (Peca, 2004, p. 140). Crucially, the design-build option does promise a method of development where the realtor can forego the hassles of being the middleman between separate design firms and contractors.

Perhaps, this is also the real appeal behind the design-build model. Here a single firm is able to overcome the coordination problems which, otherwise, regularly beset buildings production due to its fragmented nature. This can mean less work for the realtor in coordinating a project and less chances of delays during physical construction of a building which stretch the production time of a project. And latest data does show that the design-build method has gained the favor of realtor's capital over time. The design-build approach is projected to account for $1.7 trillion of the estimated $7.9 trillion in construction which will be spent between the years 2021 to 2025 (Design Build Institute of America, 2021, p. 11). This is equal to 21.5 percent of the projected construction outlays between 2021 to 2025. In comparison, design-build was only responsible for approximately 16 percent of all construction expenditures in the United States in 2008 (Miller, et.al., 2009, p. 24).

In the U.S., the type of buildings which is an exception to the bidding process is the single-family home. And this is not due to the design-build services offered by architectural firms. Rather, single-family homes are an exception because majority of the time they are produced by small construction firms without being commissioned by realtor's capital. After construction, these small builders look to speculate on the sale or leasing of their buildings without the aid of a commercial capitalist. Such speculative production in the case of multifamily or office buildings is rarer and essentially nonexistent for other kinds of buildings (Finkel, 1997, p. 27). These construction companies are referred to as 'Speculative Builders' or 'For-sale Builders' as they operate outside contractorships awarded by realtor's capital through the bidding process (Siniavskaia, 2021, p. 1).

Thus, single family homes form an exception to not only the bidding process but more generally the existence of realtor's capital as their production much of the time is carried on independently of being commissioned by commercial capital. This exception is the result of the much lower costs in site acquisition, design and construction. First, subdivided plots for family houses are far smaller and, thereby, cheaper than those required for bigger buildings. A smaller amount of capital is required. Second, the simpler design of single-family homes allows for 'do it yourself' style construction and eliminates the need for architectural and engineering firms. As long as building regulations are followed there is no need to hire design firms. This lowers the costs that would be otherwise incurred in the design stage as well as the dependence on realtor's capital to commission a design firm. Third, single family homes are also far smaller and, thereby, cheaper to construct in comparison to most buildings which are far larger. These small firms heavily rely on subcontracting specialized tradesmen at various stages of home construction. On average, twenty-seven percent of total costs of For-Sale Builders are due to subcontracting (Siniavskaia, 2021, p. 8). The much lower costs of the land acquisition, design and construction allow small 'mom and pop' style firms to engage in speculative production without dependence on realtor's capital as the merchant who would, otherwise, commission production. They

purchase land, hold onto it until it is profitable to build, design a layout, build the house, and then look to promote it themselves.

The single-family home as a subtype of buildings form a curious exception to the argument laid above for the bidding process and the existence of realtor's capital more generally. It is a subject of research in its own right. Nonetheless, the demand for housing is also local, small-scale and heterogeneous just like that of other types of buildings (for an overview of housing market segmentation see Goodman and Thibodeau, 1998).

I have now covered the bidding phase, the changing labor relations underpinning and the types of buildings which form an exception to it. I will now move to the physical construction which forms the second part of construction stage once bidding is over.

10.3- The Realtor Manages Construction

Construction is commissioned by the realtor through monthly payments to the contractor (Peca, pp. 146-147, 2009). This aspect of the production process of buildings is reminiscent of the putting out system where the merchant instigated and funded production (Banaji, 2020, pp. 85-89, Marx, 1990, pp.1023-1025). Nevertheless, unlike the putting out system here labor-power is to be found entirely subsumed under construction capital whether it be a GC or CM. Evidence in the case of buildings suggests that even under conditions of industrialized capitalism if market demand is unstable, small in scale and segmented a merchant may be necessary to initiate and coordinate production. Another crucial point to note here is that within the monthly payments to the construction contractor by realtor is buried the profit for construction. This is explicit in the cost-plus percentage fee contracts of the CM and implicit in the fixed-price contracts of the GC. The wholesale price of production is paid on a monthly basis by the realtor to the construction contractor.

Once the actual construction process is commenced the realtor becomes an indirect manager of production who as the central coordinator of the entire project monitors developments and problem-solves along with the contractor. The goal for realtor's capital here is to make sure the contractor keeps the production time to a minimum since profitability of the whole enterprise is dependent on it (Peca, p. 145-148, 2009).

The historical assault on construction unions covered above was the most blatant and antagonistic manifestation of the need for realtor's capital to minimize production costs and time. To reiterate, this merchant commissions production and, thereby, becomes dependent upon the production process to turnover his money-capital at an acceptable annual rate of profit. The realtor is no ordinary wholesaler who simply just buys from a variety of producers, unbothered by the intricacies of production. In the case of the realtor the precise opposite holds because of the peculiar demand traits of buildings. The realtor is required to advance his own

money to instigate production. Consequently, delays and higher than anticipated costs amidst physical construction, pose a threat to the realtor's profits.

Delays or higher costs in the physical building phase can occur for numerous reasons. Let us also recall here that realtor's capital since the 1970s has moved away from the fixed price contracts offered by the General Contractors towards Contract Managers who charge a percentage fee in addition to the total construction cost. With a cost-plus percentage fee contract It is not just the unplanned costs of materials and labor because of change orders which may rise. As a result, most realtors today are exposed to greater sources of risks which cause construction cost overruns and lower profitability.

The most systematic work done in this domain for the U.S. context is by Akinci and Fisher (for the U.K. see Akintoye, 2000). The authors classify risks of cost overruns into two main categories dependent upon whether the risk arise from outside the project itself or from within it – construction-specific factors. I will take each category in turn here. The risks which arise during the construction phase but remain external to the construction project itself are twofold. The first source of risk arises from the prevailing economic conditions is price instability. This can be because of a rise in price of specific construction materials which act as inputs or general inflation altogether. Either way, it will mean higher construction costs than originally anticipated by the construction contractor and the realtor. The second source of risk which may increase costs and cause delays comes from political instability of a country (Akinci and Fisher, 1998, pp. 70-73). The recent experience of the Covid19 pandemic is also important here. Countries with extended lockdowns saw construction come to a standstill which severely elongated production time.

Construction-specific risk factors which arise from within a project can be classified into four categories. First, it is common to discover previously unknown geological conditions due to imperfect surveying and study of the ground during the site phase which increases costs for the construction phase. It is only during excavation of the soil that the prospective estimates and

studies are truly tested. The physically larger the type of buildings and the more weight it puts on the soil the more this type of risk increases. By comparison, this risk is reduced for smaller types of buildings such as single-family homes. Second, given the vast majority of construction is done on site and prefabrication plays a small role, harsh weather conditions can easily disrupt construction and cause production time to be extended. Here it is important, to keep in mind that the contractor and realtor's capital can only base their estimates on average weather conditions and potential of days lost due to them. Unexpected weather conditions may then easily disrupt the physical construction phase (Akinci and Fisher, 1998, pp. 70-73)

The third source of risk comes from the process of subcontracting. Subcontractors might not be able to finish work in time or provide the standard of work as expected (Akinci and Fisher, 1998, pp. 70-73). Delays can also occur because of payment disputes between the construction contractor and his subcontractors. (Peca 2009, pp. 144). This risk has increased with the rise of the Contract Manager who is heavily reliant on subcontracting other parties while keeping costs to a minimum. Additionally, Construction Managers act as agents on behalf of realtor's capital, trying to skirt regulations and minimize union input which can also lead to disputes onsite that slow down production and extend turnover time. (Ehrlich, 2021, pp. 5-7, Weil, 2005).

There are two financial instruments at the disposal of realtor's capital to hedge such risks which arise in the physical construction phase. The first is a 'performance bond' which the realtor can purchase from an insurance firm. The performance bond behaves in an identical vein to liability insurance. The performance bond guarantees that the construction contractor will finish construction and meet all legal requirements he is liable for. If the contractor does not meet the agreements set out in the contract, the performance bond will allow the realtor to receive a payout from the insurance company. Second, the realtor has also the option to purchase a 'payment bond' from an insurance company which ensures the contractor will pay all subcontractors in a timely fashion. In the event that the construction contractor fails to do so the insurance company will pay for the costs of replacing the contractor and/or subcontractors. Both the payment and performance bonds can be combined within a single bond (Peca, 2009, p. 144).

These insurance costs fall under the general category of circulation costs. However, they are specifically tied to the physical building phase of the construction stage which follow after the bidding process. Moreover, unlike the bidding phase, the overhead cost of these bonds is borne by the realtor and not construction contractors.

The fourth and final source of risk amidst physical construction stems from the client himself of the construction contractor - the realtor. This threat to the completion of the projects stems from the inability of realtor' capital to coordinate, manage and finance the various contracted parties for a project. A poorly organized project will be marred by delays and rising costs. Another common source of the elongation of production time is the inability for the realtor to pay the construction contractor on a monthly basis (Akinci and Fischer, 1998, p. 71). In both cases the profits recouped will be below par or worse yet, the entire project could be a financial loss. I will detail the risks stemming from project management and cash-flow solvency in turn.

As covered above given the short-term nature of the whole enterprise there is a severe lack of trust between various contracted parties as well as a lack of understanding which is gained from mutually beneficial long-term supply-side partnerships found elsewhere (Cain, 2004, pp. 1-8, 9-17, 44-48). Consequently, the production of buildings remains a highly fragmented process requiring constant intermediation between various design and construction firms. Therefore, the realtor has to play the role of the central nervous system and mediator who effectively coordinates between them in order to curtail costs and the length of a project. Any construction project can go down the drain because of a host of issues if the development team is not up to the task it has set itself. As Peca writes:

'...common construction problems include inaccurate project financial records and reports, excessive change order costs, government compliance issues, insufficient staffing, project communication breakdowns, and uninsured property and casualty losses' (Peca, 2009, p. 146).

Clear cut communication and overseeing of change orders is especially important as there are perverse incentives built into the design-bid-build process for the construction contractor. It

is well known that contractors will purposely make artificially low offers to win out in the bidding process only later to charge much higher amount in construction once they have secured the contract. After all, once contractors have secured the contract they become a monopolist because the realtor has locked himself into the deal (Lepatner, 2007, pp. 27). Now they are free to charge a higher amount and push off the blame on the architect or other design firms as well as subcontracted tradesmen as the reason for higher costs or longer than estimated time. As one set of authors put it:

'The bid process sets up a common - and predictable – behavior pattern: Bid low to win. If successful, find justifiable ways to recoup and protect profit. And make sure there is someone else to blame as the cause for additional fees. In the industry, this built-in tension is called the winner's curse' (Miller, et al., 2009, p. 28).

Realtor's capital performs an essential function by selecting the cheapest bidder as this lowers the costs of production for buildings. Nevertheless, this situation creates a perverse incentive for the construction contractor who has won the bid which then threatens that very function. Therefore, in order to keep production costs and time to a minimum realtor's capital is forced to closely monitor construction and only approve change orders for construction materials which are necessary. An adept realtor will know from accumulated experience which change orders to approve and which to contest. Through this indirect management of construction, the realtor minimizes the costs and time of production of buildings. This is an essential function of realtor's capital. Once more this function is carried out by the realtor under the necessity of turning over his capital with the greatest profit possible.

Change orders are usually viewed by the architect before they reach the development team's desk (Peca, 2009, p. 147). Here genuine disputes may arise between the construction contractor and the architect who provides the construction documents with guidelines on what construction material to use. The architect may complain that his directions have not been followed while the contractor retorts that the architect is never onsite where problems are actually arising. These disputes can lead to work stoppages as well as delays while workers are

still paid to be onsite which means losses are incurred simultaneously as production time is lengthened. The realtor as the central mediator and coordinator of a fragmented process has to smooth out differences in order to keep construction on schedule. By constantly coordinating between the construction contractor and architect realtor's capital lowers the production time of buildings.

The contracted design and construction firms, on the other hand, have far less financial incentive to minimize production costs and time of a project once they have been commissioned. Their profits are buried within the payments made to them by the realtor who commissions them. Even a GC on a fixed-price contract may recoup profits handsomely through calling for unnecessary change orders (Lepatner, 2007, p. 31). If a CM is hired instead the situation is even worse given the flexible price contract which charges a percentage fee upon construction costs. Similarly, the architect charges their fees as a percentage fee of the total construction costs (Lepatner, 2007, p. 29). As a result, the architect lacks an inbuilt incentive in minimizing costs which regularly puts him at loggerheads with the realtor (Miller, et. al., 2009, pp. 29-30).

Moreover, the short-term nature of property development provides little incentive for direct producers to endeavor to gain the long-term trust and favor of their clients. Therefore, once production is underway the greatest incentive for minimizing production costs and production time lies with the realtor who initiates the entire project and finds his funds tied up production. The realtor is compelled to do all this in order to turnover his capital with a profit. And it is through this compulsion that the realtor performs the essential function of lowering production time and costs of buildings.

Another problem for project management can be theft of construction materials from the site (Peca, 2009, p.148). This problem might be exacerbated in the U.S. due to the nonexistence of Quantity Surveyors as a distinct profession as is the case in the United Kingdom (see Bowen, 2009). Theft of materials onsite can be as costly as a steady stream of change orders of construction materials for the realtor if not more. Here it is also up to the realtor to keep

immaculate inventory records in order to hold the construction contractor responsible later. Record-keeping of construction materials as such, thereby, becomes a circulation cost borne by the realtor in addition to the GC or CM.

I will now move on to the threat of cashflow insolvency that plagues the construction phase. As stated above, in the design phase, the realtor negotiates the construction loans from lenders. Once physical construction commences these loans are released in monthly installments which allow for a steady cashflow to meets project costs.

The realtor uses these funds to meet project expenses including making payments to the construction contractor. In turn, the construction contractor uses these funds to pay subcontracted parties. However, there are stipulations to the monthly loan withdrawal which need to be met by the realtor in order to access the loan. Otherwise, the construction lender, usually a bank, reserves the right to sever the financing of a project. If this occurs the realtor will have to scamper for alternative sources of funding which might be very difficult to come by or simply agree to the terms of the lender. In either case, these delays lower profitability by extending production time during the construction phase. The stipulation of most concern to the realtor in construction loan agreements is 'loan balancing'. Loan balancing means that if actual costs surpass the original estimates the realtor has to put down additional equity for the project with the lender. Lenders reserve the right to call in loan balancing preemptively if estimated construction costs rise even before the actual costs are incurred. If a lender concludes that a steady flow of change orders that are burgeoning construction costs will continue into the future, then he will demand that the realtor provide an additional margin of money. The lender does this to ensure that the project he or she is funding remains solvent even in the face of rising costs. Effectively, the result is that the realtor has now to advance an additional sum of money on top of the unanticipated project costs which he is already incurring. This is another way in which a growing number of change orders raise costs above the original estimates and threaten profits. Loan balancing can become a major point of contention between lenders and the realtor (Peca, 2009, p. 145-147).

This brings me to the monthly construction meetings which precede the monthly loan withdrawal. These our intensive meetings which may last an entire day with all the parties present in a single room: the realtor and his agents, the construction contractor, and construction lenders. The point is to hammer out an agreed delivery schedule and prices for construction. Through these meetings the lender is able to scrutinize construction costs, a portion of which they are paying for. This is of crucial significance as lenders have the right to deny change order requests made by the contractor even after the lead architect and the development team approve them (Peca, 2009, pp. 145-147).

These meetings require lawyers, agents and of course drafting and looking over of contracts. As such they form faux de frais of production as circulation costs. The time expended in planning for them is also circulation time which is intermittently placed within the working periods of construction. The realtor here has a twofold task. First is to minimize the circulation cost and circulation time associated with monthly construction meetings. If disputes arise in these meetings so will the attendant circulation costs and circulation time. And if the disputes are not resolved then the realtor risks having his financing cut off and becoming unable to make payments to the lead contractor. That will interrupt the working period of a construction project and extend its production time.

Therefore, through experience realtor's capital specializes in curtailing the circulation costs and circulation time of monthly construction meetings which lead to the loan withdrawal. This allows the realtor to retain cash-flow solvency of a project (Peca, 2004, pp. 146-147).

Second, the realtor specializes in being the central coordinating mechanism between all parties as well as indirectly managing production to minimize production costs and truncate production time. The realtor does this through accumulated experience to judge which change orders are necessary and which are not. If a change order is necessary, then the realtor has to push back against the bank. If, however, a change orders seems superfluous, the realtor will have to side with the bank against the construction contractor and possibly his subcontractors. When

it comes to delays which are endemic to construction the same also holds. The realtor will have to judge which are excusable and which might be due to operational inefficiencies or purposeful work slowdowns. Most importantly, for construction to carry on smoothly all parties need to be agreed upon construction costs and scheduled delivery before the meeting ends (Peca, 2004, pp. 146-147).

Once construction is finished the realtor has mainly two duties. First, he has to inspect the building and determine whether any of the work requires correction. This means coming to a mutual understanding with the contractors on the matter. Second, after the realtor agrees that construction has been completed to the agreed standard he has contractors sign 'lien waivers' through which they rescind the right to place a lien of the property due to lack of payment or an incorrect amount of reimbursements. These are legal documents which are necessary before a building can be promoted in substance in terms of sales or rentals by the realtor (Peca, 2004, pp. 150).

<u>Section 10.4 - Conclusion</u>

In the third stage of the turnover process the realtor commissions construction. Given the non-fungibility of buildings this is done through a bidding process amongst construction contractors. The lowest bidder is awarded the contract. The realtor specializes in cutting down the circulation costs and time this procedure entails. Once physical construction commences the realtor takes up a managerial role, coordinating between the architect, the lead contractor, subcontractors and construction lenders. This is partly reminiscent of the putting out system. However, production is directly organized under the construction firm which wins the bid. As the realtor finds his money tied up in production he now has to mitigate all risks which increase the costs of production and lengthen the time of production. Otherwise, he will suffer below average returns or a downright loss if there are constant delays and cost overruns. The realtor then as an intermediary becomes a specialist in managing direct producers and finance providers. This activity distinguishes him from the proverbial merchant who never bothers with production and simply buy and sells commodities. The reason behind this is the particular four stage sequence of turnover of realtor's capital which is distinct to simply the C-M ...M-C sequence of the common commodity dealer.

Through this chapter I fill the ninth gap in the literature which is a lack of an explanation as to how and why realtors commission the design of buildings. After construction is finished, the realtor reaches the promotion stage. This is the fourth and final stage of the turnover of realtor's capital. He now looks to have his capital advanced refluxed back to him augmented with a profit through sale or leasing of the new development.

Chapter 11: Fourth stage of turnover – the realtor promotes the property

Section 11.1 – Introduction

As covered above in the design phase, construction lenders only provide finance if there is already a certain level of preleasing of space in the yet to be built property. Contractual preleasing of unbuilt space can chronologically precede design and may even instigate the development project. Nevertheless, in substance a property cannot be promoted by a realtor until it has been finished to a high-degree. Otherwise, any preleasing contract on paper will not be met in reality. Therefore, it makes sense to categorize promotion of commercial property as the fourth and final stage of turnover of realtor's capital. In this stage, the realtor looks to turn over the capital he advanced for the land, design and construction with an average profit.

The realtor now vends his commodity and is no longer purchasing land, building designs and construction but rather selling them in a combined capacity for a profit. The buildings together with the land are now ready to be vended as a whole. They now comprise newly finished commercial real estate being brought onto the market. For the realtor to be successful, his activity as a vendor has to be strictly based on the marketing studies which targeted a specific demand segment.

As a result, the vending of commercial property requires far more intimate knowledge of buyer preferences in the vicinity and close-knit contact with them. The realtor as the merchant needs to approach the specific segment for who he has developed a highly customized commodity that is only useable in a certain location. This case is the opposite of mass sales of standardized moveable goods most of which in fact require a change in location in order to be sold and consumed (Miles, Berens and Weiss, 2000, pp. 207-208, 235-239). This peculiarity of the vending process of the realtor also sets him apart from the proverbial commodity-dealer.

In order to satisfy the unmet demand for buildings, realtors deploy a four-pronged strategy in order to minimize circulation costs and time of the sale and leasing process. This strategy is covered under the rubric of the 'four Ps' of Product, Price, Place and Promotion Strategy. Realtor's capital attempts to lower circulation time and costs of buildings and land – the commercial property - by appealing to a highly specific market segment through those four aspects. In section 11.2, I will take each aspect of this marketing strategy in turn highlighting how the realtor here performs an essential function of curtailing time and costs of vending. Then in section 11.3, I analyze five aspects of fetishism of commercial property which arise in its vending. 11.4 provides a chapter synopsis.

Through this final chapter I account for the tenth analytical gap which is a lack of an explanation for why and how realtor's capital specializes in the promotion of commercial properties.

Section 11.2 - Promotion

I will take the 'four Ps' of Product, Price, Place and Promotion Strategy in seriatim, discussing the role played by each in the marketing of commercial property. When it comes to the product, the realtor needs to be thoroughly acquainted with the overall design features of a building whether it will be used for residential or commercial purposes. As one author comments:

'The real estate marketer has to become intimately familiar with the physical, technological, economic, psychological, social and cultural features of the property in question' (Sirgy, 2014, p. 22)

The architectural design has to then not only be useful but also visually pleasing to the market segment the realtor is aiming for (Miles, Berens and Weiss, 2000, pp. 492-493). Moreover, the type of building used by businesses varies immensely within a property type. This makes the design quality of even similar properties very hard to compare. For example, an industrial unit used to produce auto parts will be entirely distinct in terms of its utility than a chemical plant. Similarly, a suburban shopping mall will serve an entirely distinct purpose than a strip mall in the inner city. Office buildings which house law firms will require very different design in comparison to coworking spaces. Warehouse facilities used to house primarily lumber have far simpler requirements than an Amazon fulfillment center.

This creates immense differences in terms of gauging the quality of one facility versus another even when both serve the same generic purpose. The differences in the determination of the quality of design stem from the specific business needs of end-users and labor process. As these buildings are highly tailored for a particular clientele they only admit of a narrow range of comparison in terms of design quality. The high level of intricacy involved leads realtor firms to specialize in a specific type of asset (industrial, office, multifamily, retail) or a sub-asset class (student housing, storage, tourism, etc.). In contrast, the quality specifications of residential-use properties are far more easily compared to one another within a market segment (studios, single-

family homes, retirement properties, etc.). Their design specifications are far more standardized in terms of floorplans, plot size, location (Sirgy, 2014, pp. 22-27).

There is then less need for specialization by realtor's capital when it comes to home properties. The final result, however, of realtor's capital specializing in specific type of buildings products is an in-depth knowledge of building specifications as well as the needs of their consumer. This aids in lowering the circulation time and circulation costs which arise from the sale and leasing of buildings as well as the land it occupies.

The next 'P' is that of place. Placing strategy is crucial because commercial property is an immovable good. The realtor has physically fixed his capital in place and now can only turn it over if buyers are convinced the location is of use, regardless of the design. No one would ever buy even the most attractive of skyscrapers in the middle of the Sahara Desert. Placement is perhaps the most crucial aspect of the promotion stage as it anchors all other aspects (Weiss, Berens and Weiss, 2000, pp. 207 - 208).

The realtor specializes in marketing the location of commercial property in three ways. First, the realtor has to convince his clientele that location is profitable or fit for individual consumption in the case of residential property. If the users will be businesses, then the location has to be marketed as economically placed in terms of the backward and forward linkages of any business. In the case of single-family developments, the realtor needs to boast about local amenities such as shops, parks, recreational activities as well as schools.

Second, development advertising itself needs to take place onsite. Commercial Property can only be consumed in a fixed location and so the realtor needs to lure the targeted market segment onto the premises he wishes to lease or sale. In addition to being in the right location for a market segment the property then needs to be also physically visible to prospective customers. Here characteristics of the plot of land come to the fore. If an otherwise well-placed building has its view obscured as a result of its surroundings either because of other buildings or

topographic features it will suffer a lack of interest. Events such as the 'grand opening' of a building serve an essential purpose in popularizing the product and these will not do well if the development has poor visibility. (Miles, Berens and Weiss, 2000, pp. 492-493). Nevertheless, realtors specialize in working with such constraints in order to lower the circulation time and costs of vending.

Third, realtors brag about being 'green' and following land-use regulation in terms of zoning laws, building codes and specific environmental regulations. As covered in chapter eight, this is a crucial aspect that realtor's capital specializes in. However, in the promotion stage the realtor now uses this knowledge to convince his clientele it is a good place to do business or live. The realtor's specialist knowledge also aids here in overcoming community concerns. This is crucial, as otherwise the realtor might not be able to attract tenant users simply because they do not want to break regulatory codes. The publicly available Environment Impact Statement (EIS) which needs to convince the regulatory authorities, public as well as the prospective customers that any adverse impacts on the locality will be minimized. The growing awareness of climate change and the 'green building design' initiative in construction has only heightened such concerns. (Sirgy, 2014, 34-40)

In sum, the realtor through these three tactics of placing strategy reduces the circulation costs and circulation time of commercial property. The third 'P' is Price or more specifically pricing strategy.

The accurate pricing of commercial property is difficult to predetermine. This can be ascribed to three reasons. First, the produced component of it which are buildings are a tailor-made and heterogenous good for a specific market audience. Its non-fungibility leads to variation in product costs of buildings. Second, land price is determined by each location's specific benefits or lack thereof from agglomeration. These can change block to block. Third, commercial property markets are illiquid compared to other assets. This means that market data is far more limited and harder to compare (Beren, Miles and Weis, 2000, p. 208).

It is imperative for realtors to not only accurately estimate the price of a commercial property after its development but also know if there are customers willing to pay this price. In other words, they as specialist intermediaries need to act as property appraisers who overcome the lack of market information. This is the logical reason as to why property appraisal exists as a distinct profession. However, realtors also need to pique the interest of their buyers and, thereby, stimulate demand (Sirgy, 2014, pp. 16-18). This is done through customized deal-cuttings:

'special allowances for space customized by the tenant...renewal options, expense pass throughs...payment period and credit terms are particularly important as real estate is an expensive long-lived asset' (Berens, Miles and Weiss, 2000, p. 206)

Terms of rental leases are also modified given the characteristics of tenants. Large well-known brands are known as 'anchor tenants' in real estate and rent at a discount as they attract other smaller businesses to a building such as a mall. Their lease terms are far more favorable, and they also have more bargaining power when it comes to outright purchasing a property. An important decision in terms of leasing then becomes about how much of square footage should be leased to anchor tenants at a discount (Berens, Miles and Weiss, 2000, pp. 426-427). Here the realtor has to balance the need to interest other clients with making an adequate return on his investment. Although, I ignored this facet in part two, this in practice may result in shifting the rent burden to smaller firms from monopolistic brands.

Commercial properties are heterogeneous in character, so the realtor has to play up a new development's attractive factors and minimize the attention towards any drawbacks. Here he employs three as a salesman. The first, is the benefit offered by agglomeration economies for businesses or neighborhood amenities in the case of residences. Emphasizing lower travel time to other businesses, and clients for commercial end-users or for neighborhood amenities in the case of households is key. But if proximity is the issue the realtor will look to boast other factors of the property. This leads into the second tactic. Social factors of an area are of immense

importance in terms of pricing. For example, is the crime rate in the vicinity above average? Is the neighborhood aesthetically pleasing? Are there environmental and noise pollution issues? If these aspects work in the realtors favor he plays them up, otherwise, he ignores them. Finally, the building design should be state of the art itself to get customers interested. If a cutting-edge design saves on operational costs and lowers carbon emissions, it will not hurl towards obsolescence and become morally depreciated within a few years. But if the building design is of poor-quality lacking energy efficiency the realtor might end up with a below average return. Similarly, in the case of single-family homes the floorplan, size and overall layout are of paramount importance. If the design is outdated even a brand-new property will be considered morally depreciated (Sirgy, 2014, pp. 45-46; Abramson, 2016, pp. 131-134; Eichholtz, Kok and Quigley, 2013, p. 61).

In sum, realtor's capital acts as a specialist in selling commercial property through complimenting pricing strategies with an emphasis on positive aspects while minimizing or rebranding the drawbacks. This allows the realtor to then reduces the circulation costs and circulation time of vending.

The fourth and final P is for the promotional strategy. This is composed of six steps. The first step is selection of the target market for marketing to. This should cohere with the targeted market aimed at in the marketing study carried out in the design stage. However, at times the audience aimed at could become broader than the targeted market sentiment for brand development purposes. The second step is for the realtor to select an essential goal of the marketing communication. Is the goal to simply to alleviate community concerns about the development or is the objective here to begin pre-leasing the to be built space? There needs to be a defined marketing goal here which narrows the spectrum of choices regarding the message. The third step is the message itself to the target audience. This boils down to the main point that the realtor is attempting to get across in order to interest prospective clients. Is the message about the product or the clients themselves or the branding? Realtors need to develop simply yet powerful messages to stimulate interest in their product (Sirgy, 2014, pp. 59-60).

The fourth step is a careful selection of the medium of communication. Luxury apartments for young single professionals may be effectively advertised for through the internet. Such a means of communication is, however, far less likely to be effective in the case of senior care facilities where the targeted demographic is not as technologically savvy. The choice of medium also depends on the amount and frequency of information the realtor is looking to convey about his commodity and the distance he wants this message to carry. The fifth step can be considered the 'media schedule' through which the realtor concretely determines the beginning and ending time period of a targeted advertisement campaign. The realtor now having chosen a medium of communication has to decide the level of frequency and daily or nightly timing of ads for the target audience. The sixth and final step is performance evaluation and fine tuning of the first five steps (Sirgy, 2014, pp. 60-63). If carried out adeptly, these six steps of promotional help in lowering circulation time and costs that arise from vending.

Through specialization in this four-pronged strategy of product, place, price and promotion realtors cut down the costs and time of circulation that are incurred during the promotion stage. Moreover, realtors by specializing in the promotion of new developments also become repositories of knowledge for the same properties which become used and older down the line. Therefore, they can act here as effective intermediaries as well as pass down their knowledge to newcomers in the field. This is crucial for realtors as a distinct group of merchants because most of property stock at any point in time is used owing to its long-term durability.

Section 11.3 - Five Aspects of the Fetishism of Commercial Property

There are five aspects of fetishism which are a hallmark of commercial property in freehold. They mask how humans come together in society to determine how to use the land. Instead, land-use is given an impersonal character as a thing with a value of its own. But this reification of human relations develops only when land has become fully commodified. That is, when land can be freely bought and sold by owners of enterprise like any other commodity because there is no landed class. As a result, the capitalist class combines the ownership of capital and land. These forms of fetishism generated by land-use in freehold are different to those of rack-rent leasehold tenure with a distinct class of landed property.

Two of the five aspects arise from immobile capital or buildings. First, buildings masks social relations through which land-use is determined. Second, when buildings are leased they appear as a form of interest-bearing capital. The next three fetishes are generated by land price in freehold. First, all land price always appears as a thing inherent to the plot of land further masking social relations through which land-use is determined. Second, when land is lent out it yields a ground-rent making it also seem like interest-bearing capital comparable to financial securities. Finally, the fifth aspect of the fetishism of land is that it seems like only a particular physical form of capital and not a distinct factor of production in its own right.

First, all constructions appear as an impersonal thing masking behind them human relations between members of society through which land-use is determined. This is the commodity fetishism of the value form as it roots itself in land. in land. When commodity production dominates society there is no consciously organized production nor directly assigned personal relations of kinship or service between producers (Marx, 1990, pp. 165-167, 170-173).

As a result, any construction can only be socially acknowledged as useful if sold on the market to other members of society. There is no way to predetermine how to use the land and, therefore, what to build on it or how to improve it. This process of exchange gives a construction

the attribute of value, consequently, making it a commodity which has to be exchanged for money to prove the labor expended upon it as socially necessary. All constructions are thereby transformed into capital (Marx, 1990, p. 166; Rubin, 1982, p. 9-10).

Money plays the role of universal representative of value through which the value congealed in all other commodities like buildings can be realized. The social relations between humans become masked by the impersonal character of this process where a man-made thing attached to land has a certain value and exchanged for a sum of money which as a thing represents this quantity of value. This impersonal quality to human relations and the products engendered through them is an attribute of the value form. It ascribes to buildings the extraphysical trait of a price through which they can be compared to all other goods in the process of exchange. The lack of direct and predetermined relations between producers in society then also turns fixed buildings into a 'social hieroglyphic' to be deciphered in the market (Marx, 1990, pp. 165-167; Rubin, 1982, pp. 11-12, 13-19).

The impersonal character ascribed to social relations by value unleashed in commodity exchange now exerts itself back on the atomized individuals as a relentless force. Their role in society becomes determined according to their position in the production and circulation of value. Those who make structures and infrastructure such as design and construction firms become the personifications of productive capital. These constructions themselves become capital which has the physical trait of being immobile. Those who specialize in the exchange of buildings become their personification as commodity capitalists – realtor's capital (Marx, 1990, pp. 254-255; Marx, 1991, pp. 380-381; Rubin, 1982, pp. 21-30, 33-34). The commodification of buildings then causes them to become reified and appear as impersonal objects independent of relations amongst human beings. This first level of reification can be displayed as:

Constructions → Immobile Capital

Second, once buildings are leased they begin to function as loan capital in kind. The price of production represents the loan principal here which is returned in depreciated form along with an interest. However, now its price as loan capital also becomes the interest charged upon it along with the depreciated portion (Marx, 1991, p. 465). Once leased and producing building rent, an additional level of reification takes hold of fixed buildings. This may be presented as:

Constructions → Immobile Capital → Building Rent (Appears as interest on Loan Capital)

Now buildings function as a type of loan capital akin to bonds where the revenue stream is fixed in advance and the creditworthiness of the borrower determines the risk of nonpayment. Even though, buildings are a product of physically congealed value and surplus value and non-fungible it appears to be commensurable in its rate of return to debt and equity securities. It comes across as just another form of fictitious capital bearing interest on its own. It is transformed into a financial asset through its function as loan capital in kind. As a financial asset, the value of buildings is now equal to the fixed stream of building rent being discounted. Therefore, changes in the rate of interest during a lease may make buildings sell above or below its price of production. In chapter four I used the term differential building rent for leased buildings becoming priced above its price of production due to a decline in interest rates. Here it superficially resembles fictitious capital like bonds and equities whose value fluctuates with the rate of interest. This creates the fetish that building have the property of compounding on their own as self-augmenting and fructive. The content of the interest garnered by buildings being surplus-value in the case of commercial tenants and capitalist residents or expropriated value in the case of workers is lost sight of (Ball, Lizieri and MacGregor, 1998, pp. 271-273; Marx, 1991, pp. 475-476, 515-517, 525-530; Marx, 2000c, pp. 458-462).

These are the two aspects of fetishism of commercial property arising from buildings. Both these aspects of fetish fully take hold in a freehold system where ownership of land and capital is combined.

In rack-rent leaseholds of the late eighteenth to the end of the nineteenth century the situation was different. Very short leaseholds meant the buildings erected on the land reverted to the ownership of landowner at the termination of the lease. The landowner would then lend them out to the functioning capitalist. Buildings became an extension of landed property by virtue of it being fixed to the ground. Buildings came across as, thereby an obstacle to investment and ownership by capitalists. They could only be utilized as capital within the duration of the lease through paying a building rent in addition to the ground-rent. Buildings could not be possessed by capitalists for the period of their lifetime. And for the landed gentry which owned them along with the land, buildings as property did not function as capital. The fetish formed by buildings at the time was that they appeared along with the land as landed property as distinct from the ownership of capital. Buildings only become a fully ownable commodity in freehold. They become capital. It is, therefore, only then that the fetishism of the commodity form can flourish in them. Freehold tenure also allows for the illusions caused by interest-bearing capital to take hold of buildings when it is lent out. This was not the case with the system of rack-rent leaseholds where only the landed gentry owned buildings which capitalists were forced to borrow. Capitalists could not lay hold of them as owners let alone loan them out and then compare to other forms of interest-bearing capital (Marx, 1991, pp. 756-760, 953-957; Beckett and Turner, 2004; Allen, 1982).

I will now move onto the three aspects of fetishism of land which attach themselves to commercial property in freehold. The first trait is that all land price in freehold always appears as a thing on its own which can be acquired through capital investment. This can be displayed as

Land → Capital Investment → Land price

This is the case with land-value derived from current-use, wholesale land price bid by realtors and the retail land-value from alternate-use. I will take each in turn.

In the case of capitalist land-use, agglomeration economies generate a profit gradient which leads to the urban land price gradient. Land price is a function of the relative profitability. And this relative profitability of an area is an outcome of the above-average, average or below average advantages of agglomeration there. The pooling of capital and labor generates this power which is at its zenith in the center of clusters and declines therewith. A positive land price makes it seem that the social powers of production and exchange are attributes possessed by a piece of private land. It appears as if the relative advantage originates with the land itself rather than the collective creative powers of society. A growth in these social powers appears as capital gains in land. It is only afterwards that reflection begins by economists and urban planners on agglomeration economies to decipher the meaning of these capital gains in land price.

Conversely, a decline in the social powers of production and exchange in a location appear as capital losses in land price. In an area, where the conditions for production and exchange are subpar the negative land price appears as a quality inherent to the land. This relative disadvantage in comparison to the rest of the economy because of below average profitability comes across as an intangible quality of the land itself. And it practically manifests itself as buildings selling at a discount to their replacement costs in depressed areas. It seems like an inherent trait of the location that any new buildings placed on it will immediately become devalued below its price of production.

The existence of a negative land-value strikes economists as a ludicrous concept. In 1995, the Federal Reserve altogether terminated its release of flow of funds estimates for land because a negative land-value was being inferred for some areas (Albouy, Ehrlich and Shin, 2017, p. 1). However, the form taken up by land in negative land-value is no more irrational or otherworldly than another piece of land having a positive value. It is just that one signals above par profitability while the other signals subpar conditions.

The fetish of land possessing value reaches its peak with altogether vacant plots of land or where the property is to be knocked down for redevelopment. Here the realtor tries to

calculate the wholesale price of land before conversion. This has become canonized under the residual method of approach in the art of property appraisal (Wyatt, 2013, pp. 187-206; Morri and Benedetto, 2019, 90-93). Land which is not being used currently for production, exchange or residence and lies entirely barren now appears to miraculously has a value purely on its own.

Moreover, land-use conversion for society is now decided by the relation of two prices independent of anybody's will. It hinges on whether the current price of the property is equal to or less than the wholesale land price. Land-use which form the basic condition of all human existence now becomes dependent on external power of the value-form which now controls human use of the land. And this power is entirely unaffected by the personal desires of men to maintain or switch to a different land-use. It becomes an iron law revealed to men by the market just like the holy verses.

After redevelopment, the new retail land price makes it seem that land price also increases through new buildings being placed on top of it. This maximization of land price through land-use conversion is enshrined in the principle of 'highest and best-use' in property appraisal (Appraisal Institute, 1992, pp. 275-294). Everyone knows that land price rises after redevelopment in comparison to before. That is the point of the entire process. But seldom is it asked how can buildings add value to land as a bundle? The retail land price after redevelopment comes across as even more arcane. The origins of the higher retail price of land as lying with the greater units of surplus profits that accrue from the alternate-use is entirely lost sight of.

With residential land price the sources which form its content is entirely lost sight of. As it is quantitatively commensurable to land price drawn from commercial use it is taken to be the same thing. The fact that residences do not compete for profit does not bother realtors or businessmen. The sources of residential land price as laying in the revenue of households bidding against one another for a location is considered an obvious fact of life. As a result, there is no need felt to further analyze it. Therefore, the links of residential land price to the expropriation

of value of labor-power or the luxury consumption of capitalists drawn from surplus-value is wholly concealed.

The entrapments of this fetish become extraordinary in the case of land redevelopment towards or away from residential-use. Senior care facilities through possessing the homogenous quality of land price become commensurable with munitions factories and vice-versa. Demographic changes, migration patterns, gentrification and changes in local labor markets all simply register as changes in the land price of residences. Residential land price then becomes a social hieroglyphic requiring decryption by experts (Marx, 1990, p. 167).

I will now move to the second characteristic of the fetishism of land in freehold. When redeveloped property with a positive land price is rented out it produces a ground-rent. This ground-rent appears as interest returned on the investment of capital. And it appears that land is capable of producing its own stream of revenue. It is self-compounding. Therefore, once leased, land appears as a form of in-kind loan capital just like buildings. It is the same with the purchase of older properties under lease with a land price. Here ground-rent from the land price also appears as interest generated through passive investment of capital. The decision then to invest in land and to what degree as an asset in one's portfolio can then only be made by first imagining land as a subtype of interest-bearing capital in order to compare it to other kinds of interest-bearing capital. Apartments for working families, thereby, become comparable to Alphabet stocks (Ghent, Torous and Valkanov, 2019, pp.167-168).

This is the meaning of land becoming a 'financial asset'. This additional level of reification added to land can be schematized as:

Land → Capital Investment → Land price → Ground-rent (appears as interest on loan capital)

The price now of land is determined by the rate of interest at which its fixed stream of ground-rent is capitalized at. The price of land under lease which yields ground-rent becomes, consequently, distinct to the original land price as determined by relative profitability of an area. Fluctuations in the rate of interest can increase the price of land as a financial asset. I have used the term differential ground-rent to describe land prices derived from ground-rent becoming higher than the land price from owner-occupation because of a decline in interest rates. Once land is thought of as a financial asset, its essential trait of irreproducibility becomes eliminated from the purview. Land is imagined to be just like other types of interest-bearing capital such as stocks, bonds, annuities and perpetuities. In the case of commercial tenants, ground-rent appears severed from average profit of enterprise and surplus value in the economy. With residential ground-rent the source of revenue as laying with value of labor-power or the luxury consumption drawn from surplus-value also becomes obscured (Ball, Lizieri and MacGregor, 1998, pp. 271-273; Marx, 1991, pp. 475-476, 515-517, 525-530; Marx, 2000c, pp. 458-462).

This aspect of fetishism stemming from ground-rent has also become consecrated in residual valuation techniques of appraisers. These techniques are composed of three steps. First, property appraisals prophesize the streams of ground-rent in future years. Second, the future streams of ground-rent are discounted backwards to yield a retail land price (L_r). From there a wholesale land price is calculated by making allowance for average profit within the retail land price ($L_w = \frac{L_r}{(1+r)}$) (Wyatt, 2013, pp. 403-413; Appraisal Institute, 1992, pp. 429, 474-475; Morri and Benedetto, 2019, 90-93).

Finally, the fifth aspect of the fetishism of land is that it seems like only a particular form of capital and not a distinct factor of production. This fetish is also what underlies the appearance of land as a type of loan capital which bears interest when rented out. This conflation of land with capital arises from reducing land to land price and the ability to possess land price through the investment of capital. In freehold, there is no separate landed class, consequently, land is viewed as just another sphere for capital investment. This is a real fetish arising from the distinct form of private property in land in the U.S. and elsewhere today.

In rack-rent leaseholds of Marx's day land price could not be possessed by capitalists because land could not be bought. The very existence of the landed gentry as a separate class was premised on not selling freehold titles to their lands to the owners of enterprise. Otherwise, there would be no need for capitalists to rent out short terms leaseholds at market rates. The earth came across as an alien form of private property which capital could not possess. Land price belonged to a class which blocked their ability to buy land. As a result, they had to pay this class of landlords a ground-rent which when capitalized yielded a land price. Land price was a result of their lack of ownership of land and dependence on a separate class monopolizing land as a factor of production. This led to land being personified by the landowner as distinct from capital (Marx, 1991, pp. 953-955, 959-960, 962-965, 968). As Marx put it:

'…rent presupposes precisely the monopoly of landed property, landed property as a barrier to capital, for otherwise the surplus profit would not be transformed into ground-rent and would not accrue to the landowner instead of to the farmer' (Marx, 1991, p. 885).

Land came across as unmistakably different to capital not just because of its natural qualities but because of the class structure of British society. A part of the revenue of the nation accrued as ground-rent to the owners of land who were decidedly not capitalists.

On the contrary, in freehold the premise from which land price arises is exactly the opposite to rack-rent leaseholds of Marx' day because there is no landed class. In freehold, land price stems from the flow of capital into land and, consequently, the ownership of land by capital. The trinity formula does not apply here as there are only two classes – capitalists and workers. Revenue from the intermediation of land and renting of land also accrues to capital. The two schemas below sum up how land price came to form in the heyday of Classical Political Economy and Marx versus how it forms in the U.S.

<u>Rack Rent Leasehold</u> (Britain, late 1700s to circa 1900)

Land → Landed Class blocks investment → Ground-rent → Land price

<u>Freehold</u> (United States)

Land → Capital Investment → Land price → Ground-rent

In freehold a certain sum of capital can be used to buy land and land price of a certain amount can be sold off and converted to money capital. This form of tenure then generates the real fetish where land is equated to and considered interchangeable with capital. The ownership of land here is subsumed under the ownership of capital. Capital now also owns the earth as the mean of production and it becomes a new arena for investment opportunities and specialization. This is the meaning of commercial real estate as a business and forms the premise for realtor's capital as a specialist intermediary in land. Because only after land becomes fully commodified can there exist a sector of capitalists specializing in its intermediation. Land is now looked at as a capital investment and the 'opportunity cost' of purchasing land is determined in relation to the return generated by other investments.

For functioning capital land price is viewed as just additional cost outlays of capital upon which an average profit is received. In like fashion, land price as a passive investment of capital seem to garner revenue at the rate of interest. Here for the portfolio investor land appears akin to interest being capital. The particular quality of ground-rent in freehold becomes entirely masked.

This fetish is canonized in appraisal theory and more crucially in economic orthodoxy today. I will take each in turn. In appraisal theory, when a property is being bought or sold but not redeveloped there is no need conceived to treat land as a distinct factor of production. This is because in such instances distinguishing land price from buildings does not aid in determining

the rate of return on the total capital invested in a property. Apart then from residual valuation techniques used for property redevelopment, all other income capitalization methods of property appraisal do not look to disaggregate buildings from land price. As a result, the price of production of a building is conflated with land price. This leads to the conflation of the physical and moral depreciation of a building with fluctuations in land price due to the changing relative profitability of an area. The final result is that the Net Operating Income (NOI) of a property muddles up building-rent with ground-rent (Morri and Benedetto, 2019, pp. 67-88). This confusion in property appraisal has become standard in real estate finance and investment analysis. It is taught in universities where students are trained to excel in the business world rather than study property relations in land as a historically specific form.

The conflation of land and capital became consecrated as textbook orthodoxy in Microeconomics with the work of John Bates Clark and in Land Economics with the work of Richard Ely. Besides these two authors of note there are economists who also argued it was best not to classify land as a distinct factor of production. Henry George and his followers have since charged that this was solely a stratagem against him to avoid the land price tax which would redistribute the benefits from agglomeration economies that appear as land price. There is merit to their case and Mason Gaffney has marshalled substantial evidence which points to the political goals Economics as a discipline was made to serve by Neoclassicists (Gaffney, 1994a, pp. 39-42; Gaffney, 1994b, pp. 44-50). Off late this view has also gained sympathy with some Post-Keynesians in Britain (Ryan-Collins, Lloyd and Macfarlane, 2017, pp. 48-65). The latter set of authors are, however, unsure as to why George's land price tax, although raised as a slogan first in America gained more traction in Europe. They tentatively conclude:

'In Europe, where land was less available, and the inequalities between landowners and labourers were starker, George's ideas had perhaps greater influence' (Ryan-Collins, Lloyd and Macfarlane, 2017, p. 60).

What these authors and Georgists themselves seem to not know is that Classical Political Economists since the time of Smith had been calling for a land price tax already (Smith, 1999b, p.

436). Ricardo himself approvingly cited Smith's call for a land tax and elaborated further how to ensure it would not become a burden on capital (Ricardo, 1996, pp. 126-130). So why would economists later on in America now set about doing the exact opposite? Here the limits of Georgist analysis become clear for two reasons. First, there is no understanding of the different forms of land tenure and how they relate to class structure. Second, there is no theory of how different forms of property in land create very real illusions or fetishes. Both are reasons as to why land became conflated with capital and why the single tax movement did better in the U.K. than in the U.S.

In America, the land price tax only became an unfavorable measure within the bourgeois class because now they owned the land. Freehold was the form of tenure. And a land price tax in freehold will always end up being a tax on capital. But in Britain where capitalists could not own land because of the landed gentry they were far more inclined to advocate for its taxation. In the tenurial system of rack-rent leaseholds, a land price tax could be implemented to fall solely on the landed gentry. And such a tax would lessen the burden of fiscal expenditure on capitalists.

For all their emphasis on land, both Henry George and his followers overlook the differences in class structure and, consequently, land tenure between the U.S. and Britain. Henry George, having carried over Ricardo's theory of rent without scrutiny in his work Progress and Poverty, assumed beforehand the existence of a landed class in America. Unfortunately, this has remained an unquestioned tenet in the Georgist camp ever since. They are, therefore, unable to explain why Classical Political Economists in Britain advised the land tax while Neoclassical Economists in America warned against it as a discouragement to enterprise. Being blind to objective differences in class structure and property relations underpinning economic theory, Georgists conclude that economists like Richard Ely who opposed the single tax were simply lackeys for landowners. They miss the key point that in America these landowners were actually capitalists (George, 2009, pp. 53-57; Gaffney 1994a, 19994b). The result of the lack of class analysis is that Georgists cannot figure out why the single tax was favored by owners of enterprise in the U.K. but garnered hostility from business owners in America.

Moreover, freehold tenure generates the very real fetish of land seeming as mutually substitutable with capital. Land here comes across not just as itself but rather as the land price grafted onto it. A certain sum of money capital now can be used to buy property with land price. And equally, property with land price can be sold off and transformed into money capital. This means the social powers of agglomeration as crystallized in land price become privately ownable through payment. The interchangeability of land price with money capital creates the illusion that land as a factor of production is the same as capital, even though, land is irreproducible, cannot depreciate and fixed in its total supply. It is this very real fetish stemming from property relations which undergirds the subsumption of land under capital as a factor of production in Neoclassical Economics.

The conflation of land with capital cannot be simply resolved as a political conspiracy of reaction on the part of Economists like John Bates Clark. Because this does not explain why the conflation gained popular acceptance in America while it would have come across as utter lunacy in Britain a hundred years earlier.

Rather, as Marx puts it, vulgar economics itself becomes trapped in the commonplace impressions derived from the outward appearance of production and exchange. Afterwards, such economics looks to elaborate these crude notions into a doctrine. The theoretical conflation of land with capital is an example of economics falling for the superficial appearance given off by production relations in freehold (Marx, 2000c, pp. 453-454).

When capitalist development was in its infancy and the financial system at a nascent stage, William Petty tried to classify interest on capital as just a special form of ground-rent. This is because the agrarian landed gentry was dominant at the time and so was the role of ground-rent in relation to the rest of the economy. As a result, landed property as the dominant economic form stamped its fetish on production relations as a whole. This made interest as a category seem like an outgrowth of ground-rent. (Marx, 2000a, pp. 358-359, Rubin, 1982, p. 24). Today in the

U.S., there is no landed class and the ownership of land has become entirely subsumed under the ownership of capital. Therefore, the exact opposite fetish takes hold with economists classifying ground-rent as interest which accrues on capital invested in land.

<u>Section 11.4 – Conclusion</u>

This chapter concludes the fourth and last stage of the turnover of realtor's capital which is promotion. In section 11.2 I detailed how the realtor uses tactics in relation to the product, price, placement and promotional choices to lower the circulation costs and time of commercial property. This covers the how aspect of commercial property in the market.

Nevertheless, commercial property is a peculiar commodity combining buildings and land. This leads to five aspects of fetishism I discussed in section 11.3. First, buildings are converted into immobile commodity capital or buildings, thereby, hiding social relations behind them. This indirect form of social relations once generalized then dictate the role of humans in society with architects and constructers becoming productive capital and those who specialize in its exchange becoming realtor's capital. Second, once buildings are rented out they becomes further transformed into a financial asset appearing akin to other forms of interest-bearing fictitious capital. This fetish adds an additional level of reification to the commodity form of buildings.

Third, land price makes the social powers of production brought together in urban areas appear as a thing inherent in land itself. Fourth, when land with a positive value is bought with capital and then rented out, the ground-rent it produces appears to be interest. Land now seems interchangeable with all other forms of interest-bearing capital as a financial asset. Its particularity is now obliterated from the minds altogether. Finally, the fifth aspect of fetishism which undergirds the other two is that land appears as only a particular type of capital. This is because land in freehold is owned by capitalists as there is no landed gentry. As a result, money capital can be invested in land and land can be sold to earn money capital. This leads to the fetish of land being considered as just another form of capital. The real reason behind this is that ownership of land is subsumed under the ownership of capital. In freehold, there is no landed class which marks the earth as a distinct form of property than capital. As a result, the distinct features of land become blurred producing an economic analysis where it is not accorded a role

as an independent factor of production. This peculiar fetish owes to tenurial relations in freehold where only two classes exist – capitalists and workers.

Through this final chapter, I accounted for the tenth analytical gap which is a lack of an explanation for why and how realtor's capital specializes in the promotion of commercial properties.

-- End of Part III--

Conclusion: Recap and Future Directions for Research

The central premise and unifying thread of this work is that there is a peculiar merchant which specializes in the intermediation of commercial real estate. I call this merchant realtor's capital or realtor for short. I use this term to specifically denote property developers but also commercial property firms more generally. Realtor's capital carries out seven essential functions and in return makes an average profit. These seven functions are as follows: initiating the production of buildings; minimizing the circulation costs and time of buildings; lowering the production time and costs of buildings; and curtailing the circulation costs and time of land. I make my argument in three parts.

Part one consisted of chapters one and two. In chapter one I provided ten analytical gaps that urban rent theory suffers from in its coverage of contemporary U.S. commercial real estate. Chapter two followed this with a critical literature review of urban rent theory. My point here was to expose the gap between theory and reality which required bridging. I argued that a mistaken belief in the existence of a U.S. landed gentry formed the first analytical gap in urban rent theory. This lacuna made it impossible to account for the sources and level of land price as well as how it forms. This critique emerged from my empirical observation that there never was a U.S. landed class blocking capital investment in land such as in eighteenth and nineteenth-century Britain. In Britain, this led to rack-rent leaseholds as the form of tenure. In the U.S. the dominant form of tenure has been and is freehold. Therefore, political economists have been incorrect in generalizing the assumptions and results of Ricardian and Marxian rent models which were based on rack-rent leaseholds.

This set up part two where I uncovered the sources and forms of realtor's profit. Part two was composed of chapters three to seven. In chapter three, I broke down commercial property into its two component parts of buildings which are produced physically immobile capital and land which is unproduced. The concept of buildings avoids the categorization of all constructions as fixed capital. This was my response to the second analytical gap which arises from assuming

that all fixed improvements are productive capital. The breakdown of commercial property in to buildings and land allowed me in the following chapters to trace the distinct sources of realtor's profits.

In chapter four, I argued that realtors make a commercial profit of an average amount from the intermediation of buildings. This is done by buying buildings from design and construction firms at the wholesale price of production and selling them to end-users at their retail price of price of production. Chapter four also broke down building rent which accrues from leasing buildings into its component parts of depreciation and interest. Through chapter four I accounted for my third analytical gap in the literature based on the observation that commercial real estate firms behave like merchants.

In chapter five, I moved to uncover the sources of land price which arise from agglomeration economies. The agglomeration of productive, commercial and financial capital generates economic benefits which decline with distance from the center of a cluster. Furthermore, the pooling of labor in urban areas further reinforces these advantages in the center of a cluster. The result is a negative profit gradient with three zones. In the center there are areas of surplus profitability with profits dropping to average level at a distance from the center. Finally, at a greater distance still profits fall to below average levels. Through chapter five I accounted for the fourth analytical gap based on the fourth observation that urban firms benefit from agglomeration.

In chapter six, I argued that the negative profit gradient created by agglomeration economies generates the negative land price gradient. The real or equilibrium land price from current use is equal to the units of surplus or deficit profits accruing at the average rate of profit. Therefore, land prices from current-use are positive in areas of surplus profitability, zero in areas of average profitability and negative in locations of below-average profitability. Furthermore, when a positive land-price is discounted at the rate of interest through the leasing it yields a ground-rent. In freehold, ground rent as a category is logically posterior and not anterior to land

price. Realtor are able to convert land towards the most profitable use when two conditions are met. First, the wholesale price of land the realtor bids to develop a plot is at least equal to or more than the current property price. Second, the difference between the wholesale price of land and the retail price of land which would result from the alternate-use must afford an average profit. Through chapter six I account for the fifth analytical gap in the literature which is its lack of explanation as to why urban land prices decline with distance from the center.

Chapter seven looked at the sources of realtor's profits from the sale and leasing of residences. The source here is distinct to buildings used by firms to make a profit. Here rather the source of profits lies in household income. I first showed that a residential land-price arises when bidding of property leads to demand in a location outstripping supply. When such a home is sold for consumption, land as an unproduced commodity is exchanged without an equivalent. The source then of residential land price are either wages of labor or luxury consumption of capitalists. The same also goes for the interest portion of building rent and ground-rent. In both cases, money functions here as a means of payment. Therefore, the source of realtor's profits lays either with wages or the capitalist consumption fund derived from surplus value. This chapter provided an explanation for the sixth observation that residences are not used by occupiers to make a profit. Through this I resolved the sixth analytical flaw of urban rent theory that stems from its lack of understanding of the different sources of income of commercial-use and residential-use properties.

Part three was comprised of chapters eight to eleven. Here I analyzed the four stages of the turnover of realtor's capital as a unity. The point here was to show in detail how realtor's capital carries out its seven functions. Chapter eight looked at the first stage of turnover which is the purchase of land. I argued here that the realtor pays out of pocket for the land and also specializes in minimizing the circulation costs and time attendant with the purchase of land. This provided an explanation for the seventh observation that realtors specialize in land acquisition. I, thereby, amended the seventh void in urban rent theory which is its lack of explanation of why and how realtors specialize in land acquisition. Next, in chapter nine I analyzed the second stage

which is the commissioning of the design of buildings. I showed here how the realtor lowers the circulation costs and time as well as the production costs and time which arise from blue-print creation. Chapter nine then was then the theoretical counterpart for the eighth observation that realtors commission design. This fixed the eighth gap in urban rent theory which is its lack of an account as to why realtors commission design.

The next observation was that realtors also commission construction. The lack of a theory as to why and how the realtor does this creates the ninth analytical gap in the literature that I look to fill. In chapter ten, I analyzed this as the third stage of turnover. I went into some detail here as how the realtor works to lower the circulation costs and time that arise amidst construction. Moreover, the realtor also minimizes the costs and time of production as well. Finally, chapter eleven provided a solution for the tenth analytical gap stemming from the lack of work on how and why realtors specialize in the promoting new developments. I showed that the promotion of the buildings and land forms the fourth and final stage of the turnover process of realtor's capital. Realtors now look to redeem their cost outlays along with average profit in this phase. And they minimize the circulation costs and time of vending through a tailormade marketing strategy to target a specific demand segment.

There are two essential aspects of U.S. commercial real estate which I do not explore in this work. The first is the cyclical nature of property development which generate booms and busts followed by a long period of lull. I stop well short of developing a general framework for understanding real estate crises. A related aspect is what could be termed the financialization of commercial property. Here two questions arise. First, how are realtor's profits from buildings and land transformed into financial profits such as in the case of mortgage securitization, REITs, etc.? Second, how does the growth of market-based finance accentuate commercial property cycles? I do not analyze the impact of financialization on commercial property. Nevertheless, this dissertation does provide a foundation for tackling both issues.

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