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Financialisation and Rental Housing: A Case Study of Berlin

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Working Paper, No. 153/2021

Financialisation and Rental Housing: A Case Study of Berlin

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Abstract

This paper seeks to understand the extent financialisation has had an impact on the rental housing market in Berlin. Specifically, it focuses on the financialisation of non-financial rental housing companies. The financial statements of five large, publicly listed, commercial rental housing companies in Berlin are examined for three operationalisations of financialisation: as a means of accumulation, as a mode of corporate governance, and as the prioritisation of short-term perspectives. Findings show no trends of firms increasingly relying on financial instruments for profit but did show increased shareholder orientation and short termism. Implications for the supply, price and quality of rental housing in Berlin are discussed.

Key words: financialisation, homeownership, firm ownership structure, rental housing, rental market, Berlin.

JEL codes: G3, G32, L2, N2, R21, R31

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[1] This paper is a revised version of my master's thesis. I would like to thank Prof.Dr. Jennifer Pédussel Wu and Prof. Dr. Emt. Martin Kronauer for their helpful comments.

1 INTRODUCTION

In the early 2000s, Berlin City Council was demolishing state housing and selling whole public housing estates to private investors for less than 20,000 euros an apartment. Since 2010, rents in Berlin have doubled in some areas. Berlin's reputation as a global city, the improving economy, and the plethora of opportunities in education and employment are drawing people to the city. Population growth is outpacing building construction. Demographics are changing in the city, with an increase of single and two people households, driven by young professionals immigrating to the city as well as an aging population increasingly living alone. There is a shortage of housing, which would only be satisfied with the annual construction of 20,000 new houses in Berlin, and 300,000 in Germany. Particularly noticeable is the lack of affordable housing for low-income households. Protests against increasingly burdensome rents have developed, including a campaign to expropriate properties of the city's larger landlords.

These large commercial landlords are the subject of this research: specifically, how they interact with the financial system and how this impacts the rental housing market in Berlin. Unlike the US and other economies which were greatly affected by the sub-prime mortgage market crisis, Germany's predominantly bank-based and prudent mortgage lending left the country's housing market relatively unscathed. However, the 'global pool of liquidity' has still managed to have an impact on the housing market in Germany. Huge portions of Berlin's public housing had been sold to private equity investors: over-leveraged, squeezed for profit, and following the crisis, sold to publicly listed real estate firms.

This paper seeks to understand the extent to which financialisation has had an impact on the rental housing market in Berlin. Specifically, I will look at five large, publicly listed, commercial rental housing companies in Berlin to ascertain if they have had a greater focus on financialisation: a phenomenon defined as the increasing importance of financial motives, markets, actors, and institutions (Epstein 2005). In this paper, financialisation is operationalised as using finance as a means of profit accumulation, as the increasing domination of shareholder value as a mode of corporate governance, and as the dominance of short-term perspectives.

Three hypotheses are proposed:

1. Finance as a means of profit accumulation is increasing within these firms.
2. Shareholder orientation is the primary mode of corporate governance.
3. The outlook of these firms is increasingly limited to the short term.

Based on the literature and results, the implications and impacts on the quality, quantity, and price of the rental housing stock, specifically the provision of social and affordable housing, will be discussed.

Five of the biggest housing companies in Berlin have been selected based on their presence in Berlin and the availability of information. Based on the literature of financialisation in non-financial corporations (NFCs), and of the rental housing market, microeconomic indicators have been identified and will be used to assess the role of financial motives, markets, actors and institutions in these NFCs. Data is taken from publicly available annual financial reports from 2008 to 2018. The post-crisis period allows for a decent length of study and aligns with the emergence of large real estate firms, as well as the current period of economic growth experienced in Berlin.

This paper contributes to the small but growing body of literature on financialisation of rental housing, documenting how a global phenomenon can have a very local impact. It applies a microeconomic analysis to understand the social and economic impacts of a macroeconomic phenomenon. The remainder of the paper is organised as follows. Section two provides a theoretical overview, including a literature review on financialisation on real estate and the rental housing market, and on the connection between the two. Section three outlines the historical, economic and institutional factors that have shaped Berlin and the Germany rental housing market, specifically the unique financialisation of the German housing market. Section four specifies the indicators, Section five introduces the case studies, and Section six includes the results. Section seven analyses and discusses the results, and Section eight concludes.

2 THEORY

2.1 FINANCIALISATION

2.1.1 Defining Financialisation

Financialisation can be broadly defined as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (Epstein 2005, 3) though the more critical may consider it to be "a bit like 'globalization', a convenient word for a bundle of more or less discrete structural changes in the economies of the industrialized world" (Dore 2008, 17). Though it is a term which can explain a variety of phenomena, the literature tends to fall into three loose, though overlapping, themes: the growth of the financial sector and its replacement of other sectors as a source of profit accumulation, the financialisation of non-financial corporations (NFCs) by prioritising shareholder values and financial outcomes, and the increasing impact of financial institutions on everyday life (van der Zwan 2013).

2.1.2 Financialisation as a mode of accumulation

One body of scholarship considers financialisation as a new regime of accumulation in "which profit making occurs increasingly through financial channels rather than through trade and commodity production" (Krippner 2005). Sometimes referred to as 'financial capitalism', it can be understood as a successor to industrial capitalism or to the Fordist accumulation regime. Profits are increasingly derived from financial products rather than productive output, with the growth of the financial sector at the expense of the non-financial sector. In NFCs, it is expected that financial investment will play a more important role than real investment (Hein 2012), reflected by an increasing share of financial assets in the portfolio (Davis 2016, Rabinovich 2017) and increasing borrowing costs[2], which transfer funds from NFCs to financial funds (Rabinovich 2017).

2.1.3 Financialisation as shareholder orientation

Another scholastic approach observes the "insistent financialisation" of the non-financial sector (Clarke 2014, 40). That is, the growing relations between the financial and non-financial sectors, and the change in behaviour of non-financial corporations (Stockhammer 2000, Davis 2016).

It focuses on the increase in shareholder value orientation, and specifically how shareholder value becomes a "mode of corporate governance" (Krippner 2005). It comprises a change in internal management which focusses on short-term returns and moves away from reinvesting in the firm itself (Dünhaupt 2012, Lazonick and O'Sullivan 2000, and Stockhammer 2000).

This can be seen as final step in a situation in which financialisation is a mode of accumulation. In this case, profits are redirected to shareholders, usually as dividends, at the expense of being reinvested into the firm. This has resulted in a redistribution of profits between investors, management and workers. It has caused stagnated real wages and a growth in debt-financed consumption (Dünhaupt 2012). This has led to a regime reliant on high debt and low economic growth: one that is fragile and prone to crisis (Stockhammer 2012) and which increases the vulnerabilities of economies globally (van der Zwan 2014).

[2] In the present European environment with historically low interest rates, it would be expected that over the selected time period, interest rates would decline in value. The volume of interest payments would be dependent on the debt levels. In a 2016 study on US American firms, Davis saw a pattern of increasing indebtedness in large firms, and deleveraging in small firms (2016).

2.1.4 Financialisation as short-termism

This short-termism is realised through the practice of aligning management compensation to shareholder value, for example through stock price movements, or to other forms of short-run performance-related pay schemes or stock options (Dünhaupt 2012, Hein 2012). Such structures arguably allow management to benefit disproportionately relative to shareholders and investors (Hein 2012); are a redistribution of compensation from labour to managers; and drain the means of finance for real investment purposes (Hein 2012). A focus on shareholder value means prioritising the shareholder above other stakeholders in the firm including the consumers and employees, which can have negative impacts on the labour process (e.g. Cushen and Thompson 2016, Appelbaum and Batt 2014), and increase income inequality and wage stagnation (e.g. Palley 2007, Dünhaupt 2012, Hein 2012).

Under the "mantra" of shareholder value, firms no longer retain and reinvest their profit for productive activities (Clarke 2014), choosing instead to "downsize and distribute" i.e. downsizing their workforce and distributing profits to shareholders (Lazonick and O'Sullivan, 2000). This may be seen explicitly through dividend payments or share buybacks, and implicitly through measures that, for example, reduce the quality of service to benefit shareholder profits. Dividend payments are core to the process of financialisation. Dünhaupt (2012) and Davis (2016) argue that there is an increasing expectation, or even demand, that shareholders receive (increasing) dividend payments. Again, increasingly allocating surpluses to shareholders is done at the cost of real investment. The decision to pay out to shareholders is "inherently interdependent with how to finance that use of funds and the decision not to allocate those funds to another use" (Davis 2016).

2.1.5 Financialisation of the everyday

A fourth body of scholarship examines the integration of finance into everyday life. This can be through, for example, capital-funded pension plans, consumer credit, home mortgages, retail investment accounts and other mass-marketed financial products. It outlines the inclusion of low- and middle-income earners into the financial sector and describes the process of financial markets taking over the provision of everyday need: in place of the welfare state, the savings account or the employer (Van der Zwan 2014). This contributes to stagnated real wages and prompts a growth in household debt (Van der Zwan 2014).

As a relatively new field of research, a theoretical framework of financialisation is still in development (Krippner 2012). Overall, research suggests that financialisation should be understood as a variegated process, playing out differently across economic sectors in different countries (Karwowski et al 2017). The next section outlines the key aspects of financialisation as seen in the real estate sector.

2.1.6 Financialisation and housing

As a capital intense industry, housing is heavily reliant on the financial sector (Olesky and Zigula 2016). Although considered stable, the “German housing market has become exposed to global financial dynamics in ways not widely recognized and discussed in the literature” (Wijburg and Aalbers 2017). Within real estate and urban studies, Guironnet and Halbert (2014) have noted three forms of financialisation. Firstly, the evolution of public financing of urban projects to rely more on market funding and innovative instruments. While there is some evidence of this in Berlin in particular, and Germany in general, it is not the focus of this study. Secondly, the development and innovation of mortgage and securitisation products, influential in the recent financial crisis. As will be discussed in Section 3 ‘The Berlin Case’, Germany’s stable housing and mortgage market meant the housing sector was immune to both financialisation and impacts of the financial crisis. Thirdly, Guironnet and Halbert identify the acquisition of significant parts of the built environment by financial capital investors as a process of financialisation. The following section details how financialisation in Berlin has taken this third form, starting from marketisation and liberalisation, moving through privatisations, and ending with the emergence of large, listed real estate firms. This definition is not exclusive from the definition above, rather complementary, and is elaborated in the context of Berlin in Section 3 ‘The Berlin Case’.

2.2 Rental Housing Market

The following section will look at the defining features of the rental market, specifically focussing on how the (rental) housing market differs from standard microeconomic assumptions about markets and serves as background for the discussion on financialisation and rental housing.

Table **1** contains stylised facts about the housing market are based on literature from Arnott (1974), Egner and Grabietz (2017), Dipasquale (1999) and Davis and Van Nieuwerburgh (2015). Specificity to the German context is discussed in below.

Table 1 Stylised facts

Low elasticity of supply	Long approval and construction times and limitation of new land in established cities result in relatively inelastic housing supply. Rental housing supply may also be affected by availability of credit, price expectations, and presence of social housing firms, which may have a depressing effect on house prices and thus profits.
Low elasticity of demand	Like food and health care, housing is a necessity good with no reasonable substitutes, suggesting consumers have a flexible willingness to pay. On a macroeconomic level, demand is more elastic and may be affected by population growth, economic prospects, attractiveness for companies (another driver of population growth), attractiveness of homeownership as a substitute, demographics and size of households, the presence of academic institutions[3] and the presence of a commuter belt.
Durability	Housing is a long lasting good. Any contribution of new building will be small in comparison to existing housing stocks.
Complexity and heterogeneity	The diversity of houses, locations and neighbourhoods results in informational asymmetries and lack of transparencies between buyers/renters and sellers/landlords.
Infrequently traded	Search frictions, high transaction costs such as the Real Estate Transaction Tax (RETT), and costs associated with moving, whether rented or owned, mean houses are infrequently traded. Berlin's laws which favour renter stability and long-term occupancy, contribute to the infrequent trading.
Significant federal interference	Government interference can include rent control, subsidised loans for social building, building regulations, transaction costs, renter protection, and housing subsidies, as the presence of municipal housing authorities[4].
Immobility	With a few exceptions, housing is generally indivisible and spatially fixed, leaving limited opportunity to offshore or outsource parts of construction. The value of housing is tied to its location, including the neighbourhood, public services, and tax obligations (Arnott 1974).
Scale	Housing is usually a household's largest consumption item, and when owned, of wealth accumulation, accounting for approximately 80% of Germany's total national wealth (net of foreign liabilities) (Deutsche Bundesbank and Statistisches Bundesamt 2018).
Duality as an asset and consumption good	Housing can serve two purposes: as a consumption good that provides a place to live, and as an asset to store wealth and generate income. Renters exclusively consume housing for its utility function, owners-occupiers benefit from both, and owners act exclusively as investors. The implications of housing as both an asset and a consumption good is expanded upon below.

2.2.1 Asset versus consumption good

As a consumption good, housing satisfies the basic human need for shelter and is essential in providing adequate living conditions (UN 1976). The UN Special Rapporteur for Housing has made the call for housing to be considered a human right (Farha 2015). However, if houses

[3] Egner and Grabietz (2017) found that the presence of academic institutions in a city caused an increase in rental prices due to the demand created by students.
[4] Government regulation in Germany's housing market is described in Section 3.2 Institutional Context.

are valued primarily as bearers of value, there is a disconnection from its function as a place to live (Fields 2017).

For owner-occupied dwellings, returns on real estate is hard to quantify, and is often done through imputed rent[5]. For those consuming the utility, tenure decision between renting and buying are influenced by house prices, the conditions of the rental and mortgage markets, the relative costs of renting and buying, tax treatment of homeownership (Poterba 1984, Voigtländer 2009), welfare state conditions (Kemeny 1990), and specific cultural preferences for ownership (Somerville 2005). Price increases can reduce the affordability of both owner-occupied housing and rental housing.

As an asset, homeownership is a source of wealth accumulation and provides insurance against price increases in the rental market (Voigtländer 2009), though this can become a self-fulfilling belief. Homeownership also increases private investment into the housing market. Increasing demand for, or dependence on housing as an asset can lead to speculation. This drives up prices which can have a negative impact on macroeconomic stability (BBSR 2014), especially considering the high representation of real estate as a proportion of national wealth. Further destabilising the macroeconomy would be opportunistic debt-leveraging, enabled by an increase in house prices (Fields and Uffer 2016). Rental housing, particularly in Germany, has an important role in stabilising the real estate market by providing an attractive alternative to homeownership and thus reducing the demand for sub-prime loans (Voigtländer 2014).

Rising asset prices create higher barriers of entry to property ownership, and later wealth accumulation. Ownership also has high barriers to entry, particularly in Germany where deposit requirements are usually 40% of the total asset value. Rising asset prices drive up the price of rental housing, as owners would demand greater rent to recoup costs. This has important social consequences relating to access, affordability, and homelessness.

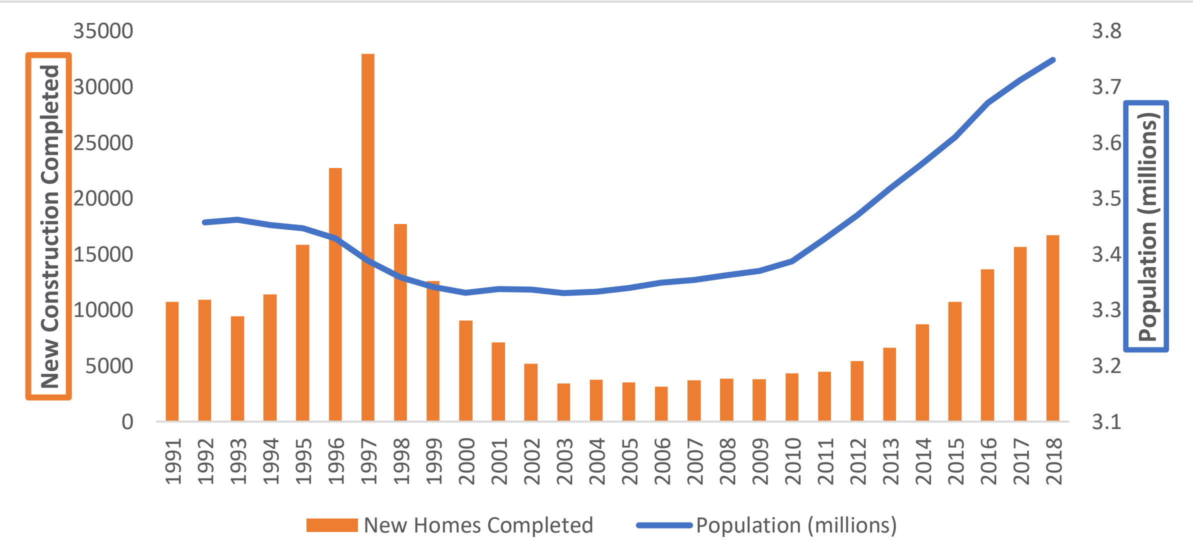
Homeownership also increases the presence of financial markets in everyday life. As a capital-intense industry with a high dependence on financing (Oleksy and Zigula 2017), home ownership presents greater opportunities for financial actors such as bankers and real estate brokers. Speculation and the process of financialisation in homeownership obliges “people from all walks of life to accept risks into their homes that were hitherto the province of professionals” (Martin 2002, 12). This is true for both owner-occupied and investor-owned homes.

[5] Imputed rent: an estimate of what the owner would be willing to pay to live in her own house.

3 The Berlin Case

Berlin provides an interesting and unique study of the rental housing market, having a history of division, a reputation for being 'poor but sexy', a recent economic upswing and population growth, and a unique experience of financialisation. The population of Berlin grew from 3.4 million to 3.7 million between 2008 and 2018 and is expected to grow to 4 million by 2025 (Statistik Brandenburg Berlin 2019). The population growth is attributed to the 30,000 (net) German and international people moving to Berlin every year, and well as the positive birth rate[6]. This population growth, as well as an increasing number of small households (52% of Berliners live alone), drives up the demand for housing. Figure 1 shows the degree to which population has outpaced new construction.

Figure 1 Population and New Construction



Source: *Statistisches Bundesamt, 2019a, Statistisches Bundesamt, 2019b*

It is estimated that to overcome the shortage, 19,000 new homes are needed annually in Berlin (BFW Landesverband Berlin Brandenburg 2018, 18), but far fewer are being built. In the previous decade, approximately 100,000 rental houses have been transformed to owner-occupied homes (RBB24 2019). The vacancy rate in Berlin has dropped to 0.9% (Empirica Institute 2018b). In a city where 85% of the population rents and GDP per capita is below the national median, affordable rental housing (net rent costing no more than 30% of a household's income) is particularly scarce.

[6] As of 2017, Berlin and Hamburg were the only two German states with a natural growth rate (Statistische Ämter des Bundes und der Länder, 2018b)

A housing shortage is particularly difficult for low-income households (earning less than 80% of national median income) and households below the poverty line (60% or less of national median income). Only about 60% and 25% of existing housing is affordable for these groups respectively (Holm et al 2018). It is estimated that based on income, 44% of Berliners are eligible for subsidised social housing (IBB 2018, 32). Rent prices doubling in some areas have further compounded stresses. There is also a nationwide shortage of flats suitable for single households across all age groups (Holm et al 2018). Key statistical information on Berlin and Germany is summarised in Table **2**.

Table 2 Key Figures - Berlin and Germany

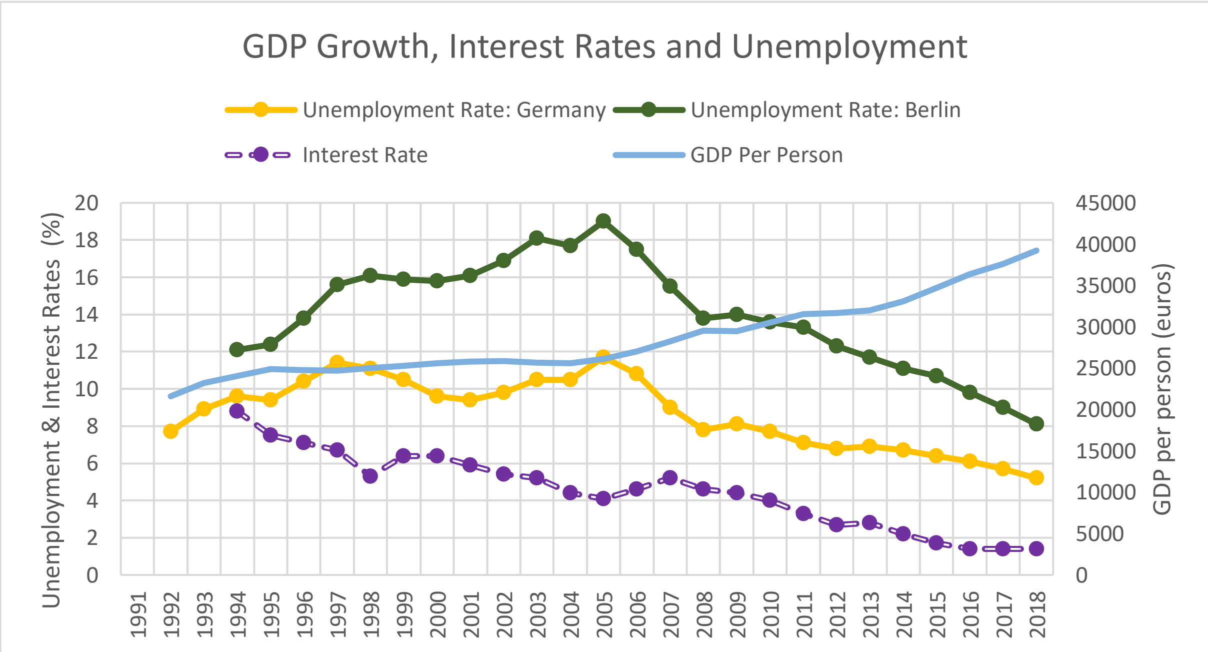
	Berlin	**Germany**	**Year (Source)**
Population	3 644 800	83 019 200	2018 (SB 2019a)
Population growth (from previous year)	0.9%	0.3%	2018 (SB 2019a)
Foreign population	18.5%	12.2%	2018 (SÄBL 2018)
Median age	42.7	47.4	2018 (IBB 2019) 2017 (CIA 2018)
Number of housing units	1 932 296	41 968 000	2018 (ASBB 2018) 2017 (SB 2019b)
Average occupancy per house	1.75	1.99	2018 (SB 2019c)
Single person households	49.0%	37.9%	2018 (GfK 2019)
Household income per resident	€20 330	€22 623	2017 (SÄBL 2018)
Net rent[7] per square metre	€9.87	€7.59	2017 (Empirica 2018)
Average living space per resident	39.3m^2	46.5m^2	2017 (IBB 2018)
Average living space per housing unit	73.2m^2	93.2m^2	2017 (IBB 2018)
% Renters	84.8%	57.9%	2017 (IBB 2018)
Unemployment rate	8.1%	5.2%	2018 (BfA 2019)
Housing vacancy rate	0.9%	2.9%	2017 (Empirica 2018)
Notes: *SB: Statistisches Bundesamt, SÄBL: Statistische Ämter Des Bundes Und Länder, ASBB: Amt für Statistik Berlin-Brandenburg, GfK: GfK Demographics, Empirica: Empirica Institut, BfA: Bundesagentur für Arbeit*			

[7] From the German term *Kaltmiete,* which refers to a 'cold' rental price that excludes heating or maintenance. Following the German convention and unless otherwise stated, rent refers to the per square metre price, on a monthly basis.

3.1 Economic Situation

Following reunification and being (re)designated the German capital, Berlin experienced a boom in the latter half of the 1990s, though it was short lived. ' Unemployment in Berlin, consistently above the German average (See Figure 2), hit a high of 19% in 2005. Since the financial crisis, Berlin's unemployment rate has declined at a faster rate than the rest of Germany, dropping to 8.1% in 2018, its lowest since reunification. In 1999, Berlin's GDP growth was stagnating, only to contract by a further 0.7% in 2003 (Statistische Ämter des Bundes und der Länder, 2011). Since 2009, GDP per person has increased by 30%. See Figure 2.

Figure 2 GDP Growth, Interest Rate and Unemployment



Source: *Statistisches Bundesamt 2018a and Bundesagentur für Arbeit 2018*

3.1 Historical Context

The current physical, political and institutional factors that define Berlin's rental housing market have been shaped by the city's rich history. Specifically: the transformation to a social market, the high percentage of social housing, and the high proportion of renters. The following is a very brief history of the key influential events.

As the industrial revolution took off, there was a shortage of decent, affordable accommodation for the city's growing population. This led to the establishment of non-profit housing associations and housing cooperatives, providing greater supply for renters and competition to private landlords. Following the destruction of world war two and the millions of displaced peoples, the German federal government began a program of rebuilding. Public policy supported construction of approximately 6 million high-quality rental houses which were to be rented out at social rates for the duration of the loan (up to 30 years) (Gruber 2010). Specifically, between 1952 and 1970, 85% of new housing units were publicly subsidised (Hanauske, 1999) and therefore required to provide social rent: rents affordable for low-income households. These rentals provided an attractive alternative to owner-occupied housing. Today 85% of Berliners rent.

Following reunification, East Germany's 3.5 million publicly owned dwellings were, along with their debt, transferred to the municipal housing authorities. Westward migration led the city to demolish or cheaply sell up to 15% of these units, with the goal of selling to the incumbent tenants. Berlin's municipal budget crisis in 2001 and subsequent federal government bailout stipulated the further sale of municipal housing. With low demand, the city sold 212,000 houses for an average cost of 20,000 euros each, totalling 4 billion euro (Aalbers and Holm 2008), a somewhat insignificant amount comparative to the 40 billion euro debt the city had acquired. Housing units were predominantly bought by highly leveraged, short-term, and risk-oriented entities, eager to speculate on rental increases (Holm 2010, Wijburg and Aalbers 2017, Fields and Uffer 2016). 75% of houses sold or privatised during this time were built between 1918 and 1972 could be regarded as artefacts of the Fordistic welfare-orientated housing policy (Holm, 2006).

The financial crisis in 2008 bankrupt many of the highly leveraged investors, and there was a shift of ownership towards a "small number of very large" listed real estate companies (Wijburg and Aalbers 2017). Nationally and internationally, low interest rates and Germany's previous immunity to a housing bubble meant German real estate was considered an attractive asset class, compared to government bonds and stocks (Scharmanski, 2012; Waltersbacher et al, 2013).

The above analysis has shown how financialisation of rental housing did not result from the growth in the mortgage market, rather from the presence of private investors owning large portfolios of rental housing (Fields and Uffer 2016, Aalbers 2017, Guironnet and Halbert 2014). Despite Germany's mortgage market being less financialised and more prudent than most other developed countries, financialisation of rental housing has still occurred.

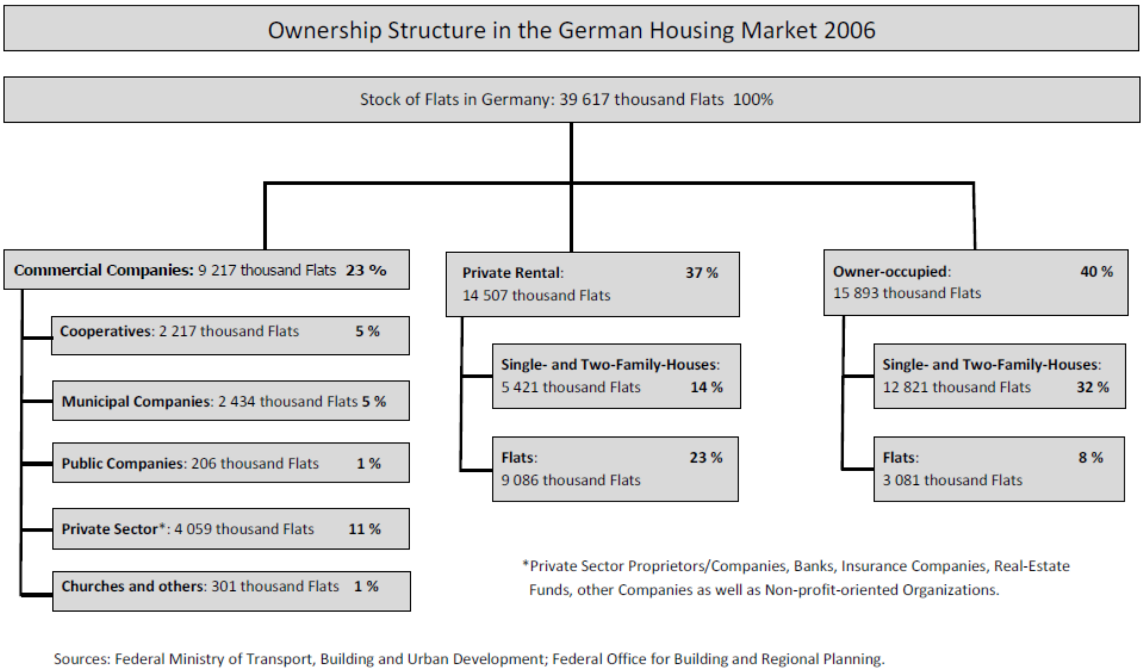
3.2 Institutional Context

3.2.1 Well-developed rental housing sector

Germany has one of the largest percentages of renters in Europe, and the lowest home ownership rate in Europe (Eurostat 2019). Despite the sales described above, Germany still has a well-developed, attractive and affordable rental housing sector. Since the building initiatives in the 1950s, when social housing was indistinguishable from private housing, renting has provided an attractive alternative to owner-occupied, acting as a social equaliser. Both social and private rentals are of good condition and plentiful supply. Approximately 57% of Germans, and 85% of Berliners rent (IBB 2018). Unlike some other European countries, it is not possible for tenants to purchase their social housing, ensuring the continuation of the stock. The developed rental market has a stabilising effect on the housing market in Germany: because renting is affordable and desirable, there is little demand for sub-prime loans (Voigtländer 2009, 368).

Owner-occupied housing accounts for 40% of housing in Germany, small private rentals account for 37% and commercial companies for 23% of total housing. Of commercial companies, large, private sector companies such as those studied, own only approximately 11% of the total housing stocks in Germany (Stinauer and Stachen 2011). Figure 3 represents the German market as of 2006. In Berlin the market share of larger companies is expected to be higher in parallel with the higher proportion of renters (85% of the city's population). For example, the five companies studied in this case study comprise approximately 11.7% of the city's rental housing stock[8].

Figure 3 Ownership structure on the German housing market



***Source**: Stinauer and Stachin 2011, 14. Translation from Detzer et al 2017.*

[8] Own calculations based on annual report data and total number of houses in Berlin multiplied by the proportion of renters. Details available from the author upon request.

3.2.2 Tenant protections

As well as the rental sector providing high quality housing, tenant rights are enshrined in law. To quote Voigtländer "German tenancy laws cannot be described as liberal" (2009, 362). Tenants' rights are ensured through long-term leases; limited eviction clauses; rental control to protect existing tenants and future tenants; and a strong voice for renters. The length of tenancies agreed upon is indefinite. In 2010, the mean rental period was 11 years, and since 2006, the median rental period has been six years (Fitzenberger and Fuchs 2013). Limited exceptions to the indefinite lease exist, for example where a landlord wants the property for their own use, the use of their family or an employee. Evictions are limited, and even requests for "own use" are highly disputed (Voigtländer 2009, 362). Rent is tied to the *Mietspiegel*, which caps rents relative to local market rents. Rental increases are limited to maximum 20% over a three-year period and should not exceed the *Mietspiegel*. The recent introduction of the rent price brakes[9] also sought to protect new leases, by limiting the allowed rental increase for a new tenant relative to the previous tenant, and subsequent increases to 15% over three years.

Renters are well-organised with over 320 renter associations[10] that provide expert advice to renters and cover legal costs for a monthly fee. As renters represent a large portion of society, they also have a large political base (Davies et al 2017). There are some loopholes which tend to favour landlords. 11% of modernisation costs can be passed onto the tenant through increased rent. Once the modernisation costs have been repaid, rent prices can increase due to the more modern state of the dwelling (Fields and Uffer 2016).

3.2.3 Tax

The German tax system tends to favour the position of renters and landlords over homeowners. Unlike many other countries, the German tax system offers no deductions on mortgage interest repayments for owner-occupiers. Mortgage interest repayments as well as wear-and-tear are tax deductable for landlords, both private households and commercial. Overall, this works to increase the attractiveness of rental housing in comparison to owner-occupied (Kaas et al 2017, Voigtländer 2009).

The German tax system also promotes stability. Capital gains taxes are graded away after 10 years of ownership, thus stressing long term investment (Davies et al 2017). Further, fluidity is limited by high transaction costs (approximately 13.7%, of which 5% is Real Estate Transfer Tax (RETT); Kaas et al 2019, 6). At 6%, RETT in Berlin is relatively high in comparison with, for example, the US, where it ranges from 0 to 2% (Buettner 2017). This tends to reduce the

[9] *Mietpriesbremse*

[10] *Mieterverein*

number of transactions (Fritzsche and Vandrei 2016). Subsidies for owner-occupiers are independent of the individual tax rate but increase with the number of children. Subsidies are usually only available once in a lifetime, or in rare circumstances, twice. This encourages buyers to wait until they can afford a house suitable for the long term, and resulting in first homebuyers being older in Germany than elsewhere (Voigtländer 2009).

3.2.4 Mortgage lending

The German mortgage market is a stabilising force in the German economy. Its prudential lending protects the housing market against financial market distortions (Voigtländer 2014). The mortgage market offers a "comparatively uniform product supply" (London Economics 2005) where usually 60 to 80 percent of the loan is funded by a bank at a rate on average ten to fifteen percent lower than the current purchase price. The remainder comes from a deposit or building society loans. Extra costs and taxes should be paid for separately and are not included as part of the mortgage. Mortgages tend to have long term, fixed interest rate for five to ten years, with early repayment penalties. Voigtländer argues this suits the preferences of German buyers, citing "maximum planning reliability" (2009, 368). Table 3 shows the breakdown of German mortgage loans by interest rate type.

Table 3 Percentage of mortgages in Germany, by interest rate type

Type of loan		**Percentage**
Fixed interest rate for 5 or more years		96.5%
Fixed interest rates for 1-5 years		3.0%
Floating interest rates		0.5%
Source: *Deutsches Bundesbank 2012*		

3.3 SUMMARY

Historically, housing stocks were built under social market principles, meaning that Germany has a large stock of social housing. A significant portion was sold off in the two decades following reunification. However, Germany still has a tenant-friendly market structure characterised by high quality rental housing, strong tenant protections, rent control, and a strong tenant voice. The tax system favours the provision of rental housing over owner-occupied housing through selective mortgage-interest deductions. The tax system also increases stability through long-term capital gains incentives, high transaction costs, and limited incentives to build. The rental market provides a stabilising effect on the mortgage market, which itself is a stabilising force on the German economy, characterised by prudential lending, long term, fixed loans, and high deposit requirements.

4 METHODOLOGY

The following sections will take a microeconomic approach and look for the presence of financialisation in the Berlin housing market by examining the financial reports of five large, publicly listed housing companies with a significant presence in the Berlin housing market. Subsequently, we then examine the impact of financialisation on the quantity, price, and quality of rental housing in Berlin.

Large commercial companies represent only about 11% of rental housing in Germany (likely more in Berlin[11]) however they are the subject of this study because of the public availability of data compared to other sectors[12]. Case Studies outlines the selection process for companies.

To confirm the existence or scale of financialisation at a microeconomic level, I will look at the following microeconomic indicators, and examine them for evidence of increasing financialisation, based on expectations as outlined in the literature.

The research serves to prove or disprove the following hypotheses:

- Finance as a means of profit accumulation is increasing within selected firms.
- Shareholder orientation is the primary mode of corporate governance.
- The focus of these firms is limited to the short-term.

4.1 SELECTION OF INDICATORS

The following microeconomic indicators are taken from financial reports and sorted into categories based on financial reporting conventions: 'revenue', 'surpluses', 'assets and liabilities', and 'management remuneration.' The specific accounting definitions used for each of these indicators are available from the author upon request.

4.2 REVENUE

The following indicators observe revenue, focussing on how firms are earning money.

[11] Detailed calculations which underly this assumption are available from the author upon request.

[12] Private (non-commercial) rentals account for a significant portion of Germany's housing supply (37%) and private landlords are guilty of exceeding legal rents by the greatest amount; research by IFSS showed that small private landlords exceeded the legally defined level of rents by €3.08 per m^2, more than both commercial (€2.35 per m^2) and public housing companies (€0.39 per m^2) (IFSS 2016). However, owing to Germany's stringent privacy laws and the lack of a public land register, small scale private landlords were not a suitable subject for this study.

Financial income as a percentage of profit: The proportion of revenue obtained from financial markets will indicate if accumulation through financial channels is increasing in importance, relevant to productive output.

Financial expenses as a percentage of profit: Interest payments and other costs of borrowing as a proportion of profits can indicate growing indebtedness. Given the falling interest rate during the period of study, there should be a decreasing trend, however, increasingly leveraged or indebted firms would lead to an increase.

Rental income compared to sales income: This is not a purely financial term but looks to ascertain if firms have an increasingly short-term focus, that is, gaining income through sales, rather than waiting for the longer term pay-off of rental income. To account for the higher income generated from a single sale in comparison to annual rent, and the changed in portfolios resulting from acquisitions, this will be averaged according to the total housing stocks.

Where housing companies have a short-term focus, new construction would be minimal, and when built, would be sold as owner-occupied apartments rather than rented out. Further, short-termism would anticipate that housing companies acquiring existing dwellings would invest in modernisation and sell as owner-occupied apartments.

Stocks sold as a percent of total stock: This will provide a volumetric complement to the above indicator, and refers to housing stock.

4.3 Rental Prices

Rent prices: This indicator observes the development of rental prices and compares with the average in Berlin, as well as that of Berlin municipal housing company, Gewobag. Greater profits are realised by these companies through the ’rent potential’, the difference between the in-place rent and average new-letting rent. Pressure for higher profits will cause these companies to implement consistent rent increases, an act of prioritising the shareholder above other stakeholders.

4.4 Surpluses

The following indicators examine how surpluses are used by these firms, whether it is reinvested in capital stock (e.g. through modernisation and the construction or acquisition of new housing stocks) or redistributed to shareholders through dividends and share buybacks.

Dividends per share as a proportion of earnings per share: This measure will look at the allocation of profits to shareholders through dividend payments. This is expected to correlate with a decrease or forgoing of investment of new stocks.

Maintenance expenses versus modernisation expenses: This indicator relates to discussions on the social consequences of profit-maximising. This measure should indicate the firms' strategy: whether it is about modernising to achieve higher rents, maintaining at a reasonable level, or cutting maintenance costs to save money. Modernisation, costing more than maintenance, is expected to exceed the cost of maintenance.

4.5 Assets and Liabilities

The following indicators examine the composition of assets, liabilities and equities, as listed on balance sheets.

Financial assets as a proportion of total assets: According to the literature on financialisation, a growing proportion of financial assets and financial liabilities would be expected. However, as property prices have increased during the study period, this may be skewed. To account for the presence of potentially overvalued property, ***Financial assets as a proportion of rental income*** will be used, as it looks are current earning capability over asset valuations.

Financial liabilities as a proportion of annual rental income: This looks at the ratio of financial liabilities to rental income, the primary source of income.

Equity ratio: The equity ratio is the total amount of equity divided by total debt. It gives an indication of how much of a company's assets are funded by shareholders as opposed to debt. According to the literature, increasing financialisation would lead to debt accounting for a larger proportion of company's assets, and that the equity ratio would decrease.

Loan-to-Value (LTV) ratio. The loan-to-value ratio represents the ratio of debt (total financial liabilities) to the total value of a firm's assets. If firms are increasingly indebted, this ratio should increase, potentially despite increases in the value of total assets (i.e. through appreciation of portfolio value).

4.6 Management Incentives

Short term to long term incentives ratio. In the financialisation literature, short-termism and shareholder value orientation are embodied in the incentives offered to management. The study will look at the actual short- and long-term incentives offered to CEOs of the different firms. This will be complemented by a review of the actual incentives themselves. In each of the analyses of the companies that follow, key takeovers and mergers are outlined. These not only provide background to the companies and their process of financialisation but align with the general financialisation literature which sees a greater incidence of take-overs and mergers, at the cost of new, productive output (Hein 2012).

5 CASE STUDIES

5.1 SELECTING THE CASE STUDIES

Five publicly listed companies have been selected for this study; Deutsche Wohnen SE, Vonovia SE, ADO Properties SA, TAG Immobilien AG and Grand City Properties SA. These five companies, highlighted in yellow, are selected from the ten largest rental housing organisations in Berlin, as listed in **Fehler! Verweisquelle konnte nicht gefunden werden.**. With the goal to study the financialisation within the company, these companies were selected based on their being publicly listed as well as having publicly available financial information in the form of annual reports.

Table 4 Overview of Berlin housing companies

Number of Residential Units		
	Berlin	**Germany**
Deutsche Wohnen SE	115,612	164,265
Vonovia SE*	41,943	395,769
ADO Properties SA	22,238	22,238
Covivio SE	17,155	41,602
Akelius*	13,817	50,407
TAG Immobilien AG	9,905	84,426
Grand City Properties SA	8,141	83,671
BGP Investment SARL	~8,000	16,000
Pears Global Real Estate	Unknown	Unknown
Hilfswerk-Siedlung GmbH (HWS)	4,607	4,607
*Notes: *Vonovia and Akelius total numbers refer to the size of the global portfolio, not only Germany.*		
Source: Annual Reports 2018 for respective companies		

Though the remaining companies play an important role in the Berlin housing market, they were excluded from the study either for lack of transparency, limited availability or quality of (disaggregated) data, or not fitting the criteria of being publicly listed (i.e. Hilfswerk-Siedlung GmbH is a religious organisation with predominantly social goals). The selected companies are traditional rental housing and real estate companies, to be differentiated from Real Estate Investment Trusts [13] (REITs), meaning their function is primarily rental housing. The five

[13] A REIT is an investment fund which must earn at least 75% of income from rental income and property management and is obliged to distribute 90% of their income to investors annually. REITs are not obliged to pay corporate tax, rather the investor pays tax on the dividend (Busching 2007, Hofert and Möller 2007). REITs have a relatively new (since 2007) presence in Germany. When examining financialisation, one would expect REITs to behave differently from traditional real estate companies, and do not fit within the scope of this study.

selected companies discussed in order of diminishing size in the Berlin market, will be compared to Berlin municipal housing company, Gewobag, where a baseline is required, or where otherwise deemed necessary. Each of the five companies are outlined below, and Table 8 (Page 25) summarises some key facts from each. Unless otherwise specified, data is drawn from annual reports.

5.2 Deutsche Wohnen

Deutsche Wohnen SE (Deutsche Wohnen or DW) is the second largest property company in Germany, with over 160,000 properties nation-wide, 115,612 of which are in Berlin. Deutsche Wohnen uses the classification of "Greater Berlin" which includes the Potsdam area in annual reports. As these reports provide the data for this study, I will also use this classification.

Originally established by Deutsche Bank in 1998, Deutsche Wohnen was publicly listed in 1999, and in 2017, reflecting its concentration on the Berlin housing market, moved base from Frankfurt am Main to Berlin. The majority of dwellings are in high demand metropolitan areas. Deutsche Wohnen utilises its own subsidiary companies for many of its services and owns over 50 nursing and assisted living facilities, which are not included in this study.

Deutsche Wohnen's business model is based on achieving the "rent potential" in Berlin. Like all the other companies featured in this study, high profit potential is identified through the gap between in-place and new-letting rents.

"The focus of property management is the optimisation of rental income. Therefore, rental increase potential is examined continuously in the course of ongoing maintenance, tenant turnover is used as an opportunity to create value, and services are purchased based on best-available prices for real savings and passed on to the tenant" (Deutsche Wohnen 2018, 166).

Table 4 Deutsche Wohnen - Key Mergers and Aquisitions

Year	Company	Details
2007	GEHAG	25,000 apartments through a share deal.
2012	BauBeCon (Barclays Bank)	23,400 apartments, 6,600 of which are in Berlin.
2013	Blackstone	6,900 apartments in Berlin.
	GSW Immobilien	56,000 - 61,000 (approximately), exclusively in Berlin (€960 sqm)
2015	Accentro	1,200 Apartments (€1,227 sqm).
	Patrizia AG	13,600 apartments, 5,600 of which are in Berlin.
2017	Various acquisitions	6,200 apartments primarily in Berlin, Leipzig and Dresden.
2018	Various acquisitions	5,750 apartments. 1,950 of which are in Berlin.
Source: *Bonczyk and Trautvetter 2019, Deutsche Wohnen Annual Reports 2008 – 2018.*		

5.3 VONOVIA

Vonovia was established in 2015 from a merger between Deutsche Annington (est. 2001) and Gagfah. Prior to merging, Deutsche Annington had its own history of mergers and acquisitions, including of former state housing estates, in Table 5 below. Vonovia is the biggest landlord in Germany, with almost 400,000 apartments nationwide, 41,943 of which are in Berlin.

In late 2018, Vonovia attempted a hostile takeover of Deutsche Wohnen. Due to shareholder opposition, the effort was abandoned in 2019.

Table 5 Vonovia - Key Mergers and Aquisitions

Year	Company	Details
Pre 2015	Deutsche Annington (previously Bundeseisenbahnvermögen)	Urbana (NRW), Deutschbau, Wohnungsgesellschaft Ruhr-Niederrhein mbH Essen, Raab Karcher, Veba Immobilien, Wohnbau Rhein-Main, Viterra & Heimbau
2015	Gagfah	144,500 dwellings in Germany, of which approximately 15,000 are in Berlin.
2017	Conwert Immobilian	243,543 dwellings, of which 21,298 in Germany. 5,000 in Berlin and surroundings. (Bonczyk and Trautvetter 2019, 23)
2018	BUWOG	48,000 dwelling in Austria and Germany, of which 27,000 are in Germany (Bonczyk and Trautvetter 2019, 22)

The company's website states that "as a modern service provider, Vonovia focuses on customer orientation and tenant satisfaction, offering tenants affordable, attractive and liveable homes" (Vonovia 2019). Vonovia highlights investments in maintenance, modernisation, and senior friendly conversions, as well as adding to the housing stock with infill developments and extensions Vonovia has also stated that financial goals were not the exclusive focus, rather, identifying the important social role that Vonovia plays as a landlord to almost 1 million people (Vonovia 2018).

5.4 ADO PROPERTIES

ADO Properties was established in 2006 and first listed on the Tel Aviv stock exchange. The company has a portfolio of 22,238 houses, located exclusively in Berlin. It was publicly listed in 2015.

Table 6 ADO Properties – Key Mergers and Acquisitions

Year	Company	Details
2015	BMB Portfolio	691 apartments (approx. €985 sqm)
	Waypoint Portfolio	1,300 apartments (approx. €1,480 sqm)
	Carlos Portfolio	5,789 Apartments (approx. €940 sqm)
2017	Asgard Portfolio	1,358 apartments (approx. €2,600 sqm)
Source: *Bonczyk and Trautvetter 2019, ADO Annual Reports 2015 – 2017*		

ADO specified their strategy in the 2015 Annual Report: “our approach of targeted investments in modernization, as well as the constant returns we have earned over the years, are unique within the industry. That's why we see ourselves as real estate experts and not as financial actors” (ADO 2015, own translation).

5.5 TAG Immobilien

TAG Immobilien owns 84,426 units in total, 9,905 of which are in Berlin, and 70% of which are in former East Germany. Originally an owner of rail transport, since 2012 TAG has been exclusively active as a real estate investor and since 2014, has abandoned its commercial portfolio to focus exclusively on residential property. Table 7 outlines the key mergers and acquisitions.

TAG’s strategy focusses on acquiring property in ‘B areas of A cities’ and ‘A areas in B cities’ as well as ‘capital recycling’ i.e. buying cheap property with high vacancy rates and upgrading it. TAG Immobilien is primarily a rental business, with occasional sales taking advantage of attractive market conditions. Costs spent on maintenance and renovations are modest, with TAG’s operating successes “based on attractive rental growth with only moderate investment requirements” (2018, 6). TAG also states that “what is in our tenants interests also makes sense for our shareholders” (TAG Immobilien 2018, 6). In recent years, TAG have engaged in refinancing and the early repayment of bonds, bringing their interest rates down. In 2014, they orchestrated a share buyback.

Table 7 TAG - Key Mergers and Acquisitions

Year	Company	Details
2012	TLG Wohnen	11,350 apartments (€662 per sqm)
	DKB Immobilien	25,023 apartments (€647 per sqm)
2017	Various	5,000 apartments in Brandenburg, Thuringia and Saxony-Anhalt
Source: *Bonczyk and Trautvetter 2019, Deal Magazine 2012, Tag Immobilien 2012b*		

5.6 Grand City Properties

Grand City Properties (GCP) owns 83,671 properties, 8,141 of which are in Berlin, with two thirds in ‘top tier’ central locations, and one third in ‘well located, affordable areas’. The company has been listed since 2012. GCP’s strategy takes advantage of the “sustained demand-supply mismatches” in its key areas (2018, 2) and defines its mission as “buying, optimising and repositioning real estate”. It also engages in capital recycling. There was no mergers to list.

5.7 Gewobag

Gewobag is one of Berlin’s six municipal housing societies. It was established in 1919 as a subsidiary of Gagfah, which is now a part of Vonovia. Gewobag owns 61,286 apartments in Berlin. Between 2015 and 2026, Gewobag aims to build 10,200 new apartments, increasing its portfolio by more than 15%. In stark contrast to the private firms, Gewobag invests 38% of rental income in new construction (Bonczyk and Trautvetter 2019). In 2018, Gewobag recorded a net profit of €26.5 million.

Table 8 Key characteristics of selected companies

	Deutsche Wohnen		Vonovia		ADO Properties		TAG Immobilien		GRAND CITY PROPERTIES	
		%		%		%		%		%
Shareholders	BlackRock	10.2%	BlackRock	8.2%	ADO Group LTD	38.2%	MFS	11.4%	Edolaxia Group	38.8%
	MFS*	9.9%	Norges Bank	6.9%	Other Free Float	61.8%	VBL*	9.9%	Other Free Float	61.2%
	Norges Bank	6.9%	Landsdowne Partners	4.6%			Capital Group Companies	9.9%		
	State Street Corporation	3.1%	MFS	2.8%			Flossbach von Storch AG	9.9%		
	Other	69.8%	Other Free Float	77.5%			BlackRock	5.3%		
							BayernInvest	4.9%		
							Universal Investment GmbH	3.0%		
							Other Free Float	45.7%		
Number of Residential Units (Total)	164,265		395,769		22,238		84,426		83,671	
Number of Residential Units (Berlin)	115,612		41,943		22,238		9,905		8,141	
		# Dwellings		# Dwellings		# Dwellings		# Dwellings		# Dwellings
New Construction Projects	Krampnitz, Potsdam	1,400	Former BUWOG Land	10,000	"Microliving", Neukölln	150	No evidence		No evidence	
	Westend, Charlottenburg	580	Ziekowstraße, Reinickendorf	600	Attic floor, Charlottenburg	unknown				
	Merianhain Estate, Kopenick	1,200								

Notes: **MFS: Massachusetts Financial Services Company; VBL: Versorgungsanstalt des Bundes und der Länder*

6 RESULTS

6.1 REVENUES

6.1.1 Financial Income as a Percentage of Profit

Figure 4 and Figure 5 both capture financial income as a percentage of profit (note the varying scales on the vertical axes). A general decline in financial income as a percentage of profits across all companies is evident. Extreme results from 2008 and 2009 are due to negative profits experienced after the crisis. All values taken were absolute. Consistently rising property values over the study period may be responsible for increasing the profit figures. However, there was no consistent or significant increase in growth of financial income alone, as a proportion of rental income, or on a per unit basis. All data is available from the author upon request.

Figure 4 Financial income as a % of profit (full scale)

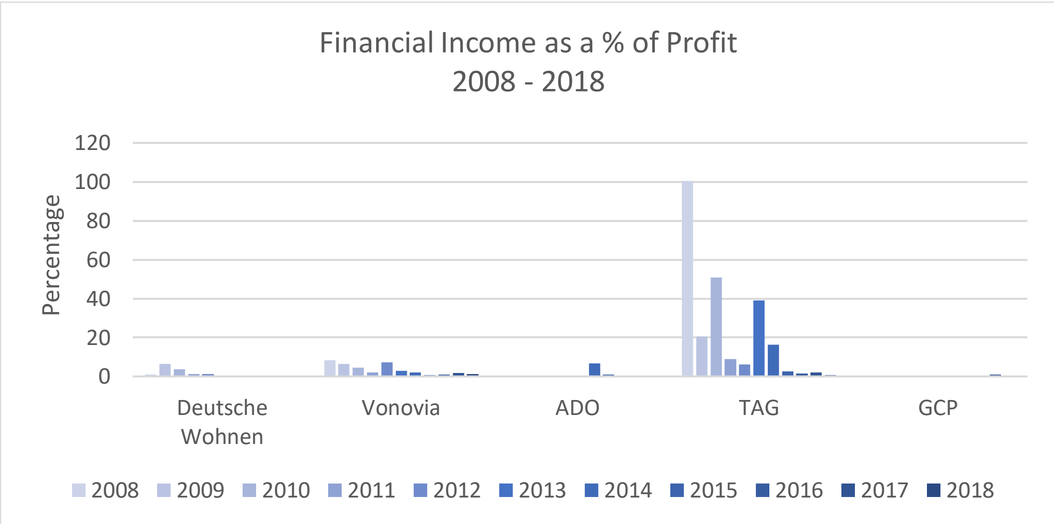
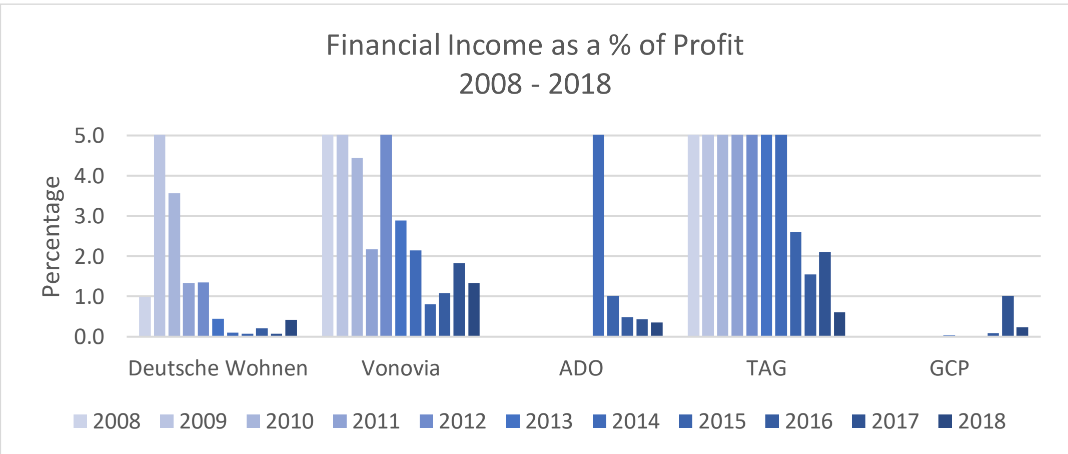


Figure 5 Financial income as a % of profit (adjusted scale)



6.1.2 Financial Expenses as a Percentage of Profit

Figure 6 and Figure 7 show a generally decreasing proportion of profits being redirected to financial expenses. Again, note the differing scales on the vertical axes.

Given that interest rates have significantly fallen over the period 2008 to 2018, a fall in financial expenses as a percentage of profit would be expected. This trend is generally clear. GCP differs from the other firms with financial expenses increasing, both as a proportion of profits and on a per unit basis. This is likely a result of falling profits in 2018, seemingly due to higher operating costs and more modest capital gains. TAG Immobilien saw their financial expenses increase significantly, likely related to the issuance of corporate bonds in 2013 and 2014. Further, any peaks may also be attributable to early repayment fees associated with refinancing, should any firm wish to benefit from the low interest rate. Again, there is no evidence that financial expenses are consuming a larger proportion of profit, or that debt is playing a larger role.

Figure 6 Financial expenses as a % of profit (full scale)

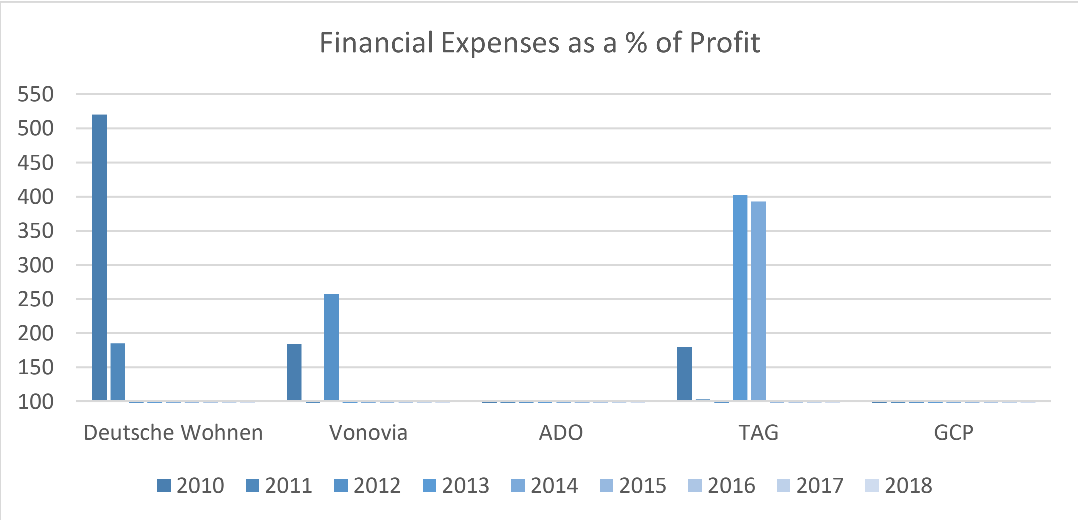
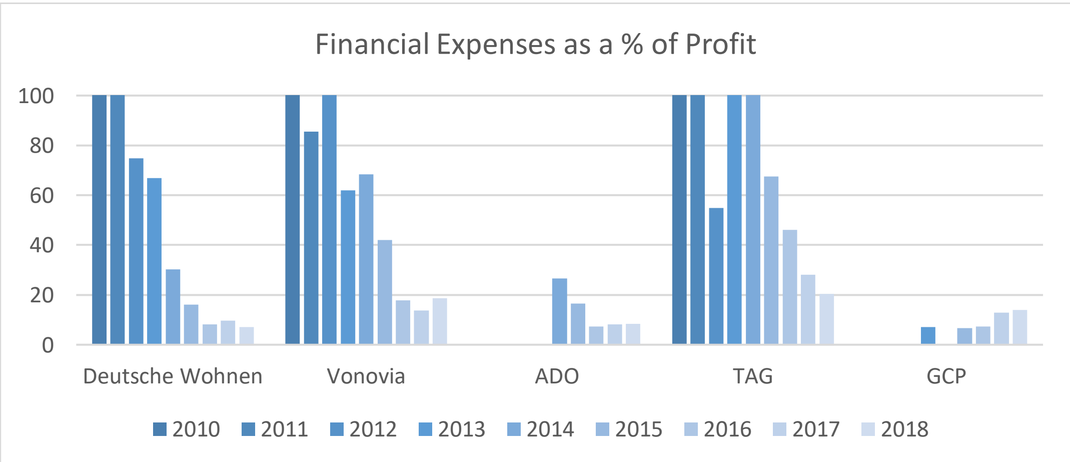


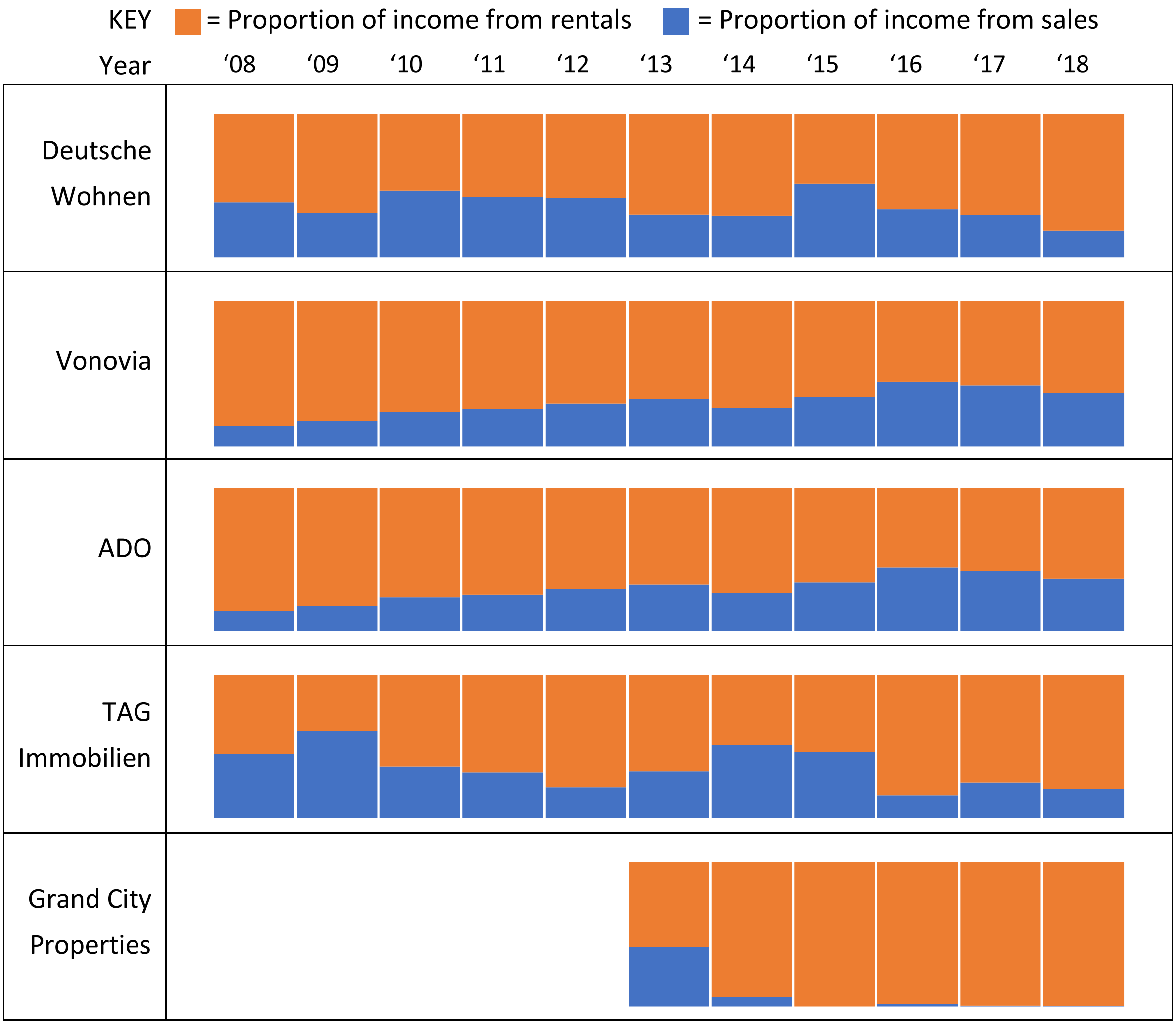
Figure 7 Financial expenses as a % of profit (adjusted scale)



6.1.3 Rental income vs sales income

Figure 8 shows the sales income vs rental income per property (PP). Should a company choose to focus on short-term profits from selling their portfolio, an increasing proportion of income would come from sales. Although Vonovia maintains a relatively stable rental income (details in appendix), a increasing portion of revenue is gained through sales. Deutsche Wohnen has also increased sales as a source of profit, while ADO, TAG and Grand City Properties have remained stable or decreased. Aside from Vonovia, there appears to be no general trend toward selling to 'make a quick buck'. This may be because the firms are indeed focussed on the long term or are satisfied with the increasing potential rental profits due to forecasts of population and rental growth.

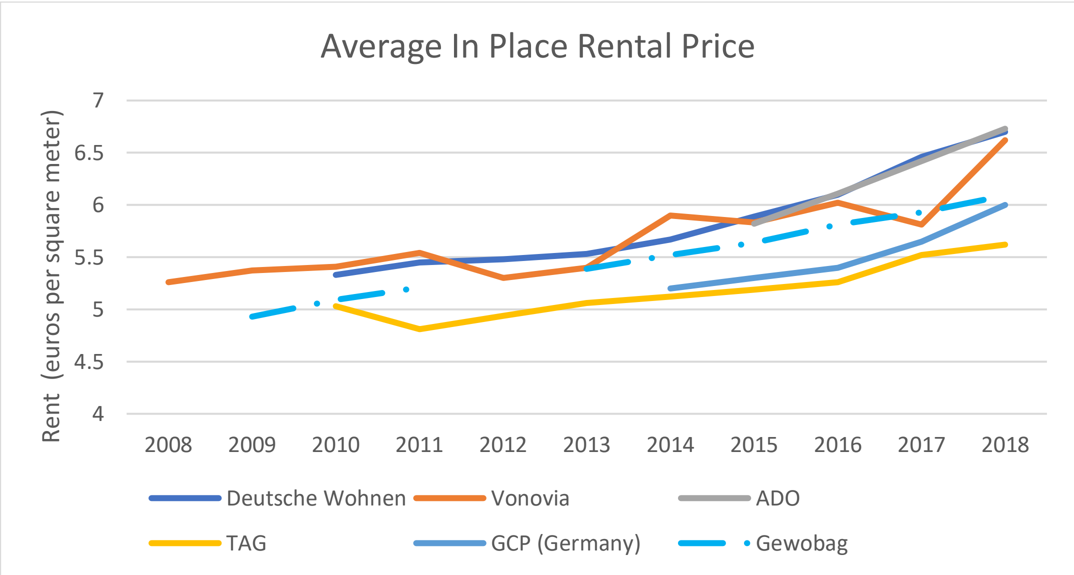
Figure 8 Rental vs sales income (per property)



6.1.4 Rent Price

Rent price in all firms has increased. Figure 9 shows the six firms in comparison with Gewobag and ‘average rent’. The average rent price in Berlin is based on advertised rents, which gives an indication of new letting rents and is sourced from Empirica Institut (2019). Rent prices of the individual firms show the difference in in-place rent and new letting rent (where available), are shown in Appendix 1 and show how firms benefit from tenant turnover.

Figure 9 Average in-place rental price (comparative)

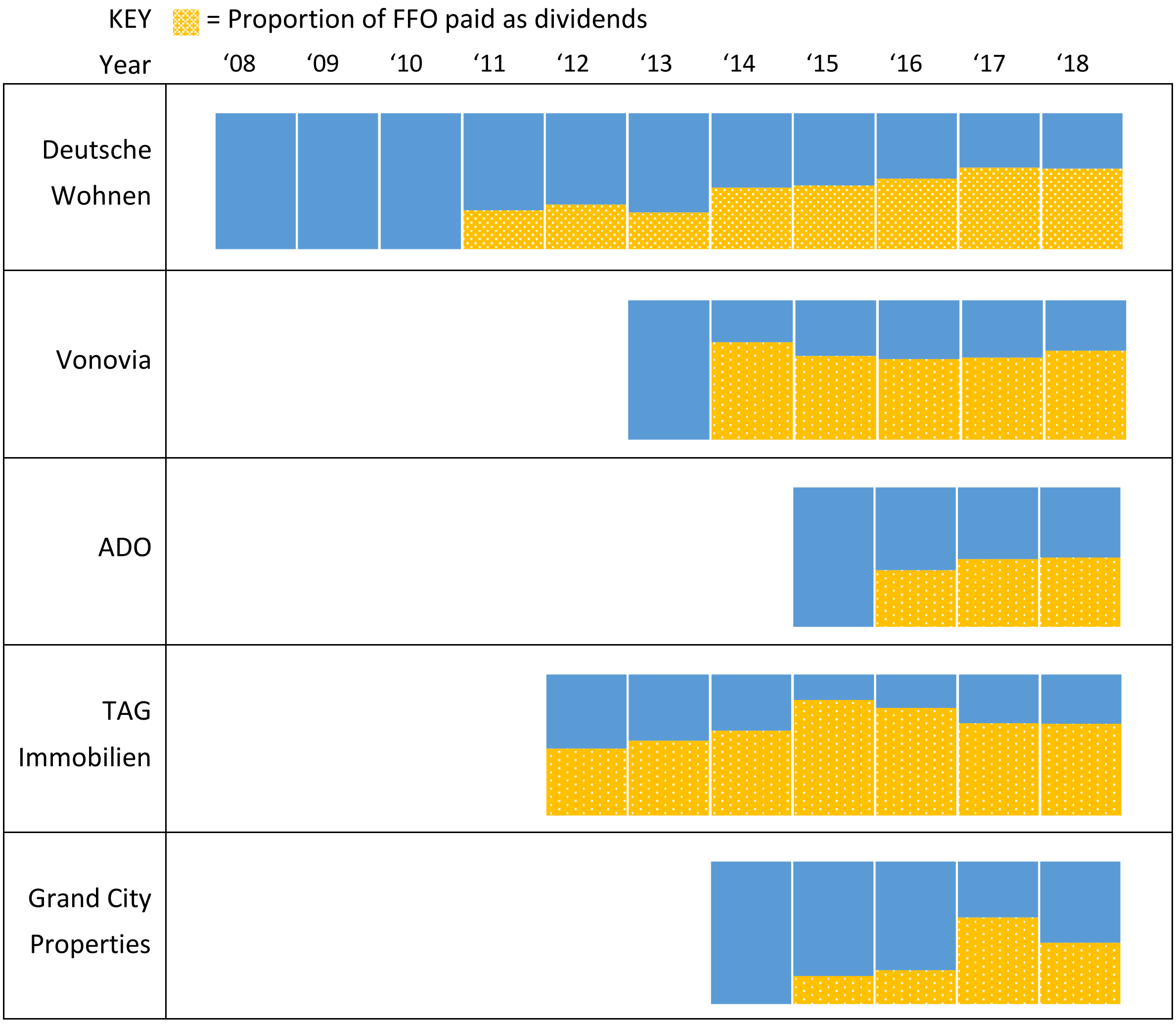


6.2 Surplus

6.2.1 Dividends as a Proportion of Earnings

In absolute terms, dividends for all firms consistently increased on an annual basis (except for Grand City Properties in 2017). As a percentage of earnings, dividends have increased consistently for Deutsche Wohnen. Vonovia and ADO Properties have relatively stable distribution patterns, while TAG Immobilien and Grand City Properties have been sporadic, though follow a growth trend. Generally, dividends consume a significant proportion of earnings per share.

Figure 10 Dividends as a proportion of FFO



6.2.2 Maintenance and Modernisation Expenditure

Maintenance costs in all firms stayed fairly consistent, though Vonovia’s expenses on maintenance increased significantly (60% or €6.79 per square metre). This may be due to Vonovia’s changing definitions of maintenance and modernisation costs. Modernisation expenditure increased in all firms. Deutsche Wohnen modernisation costs increased by 611% in the decade to 2018, resulting in a cost of €30.91 per square metre. Vonovia, does not provide comparable data, but for the three years to 2018, modernisation costs increased by 106%. Deutsche Wohnen, ADO properties and Vonovia’s costs are approaching nearly 30 euro per square metre, GDP has increased to €17 and TAG has remained modest at €11.93 per square metre, comparable with Gewobag (€12).

Figure 12 Maintenance costs

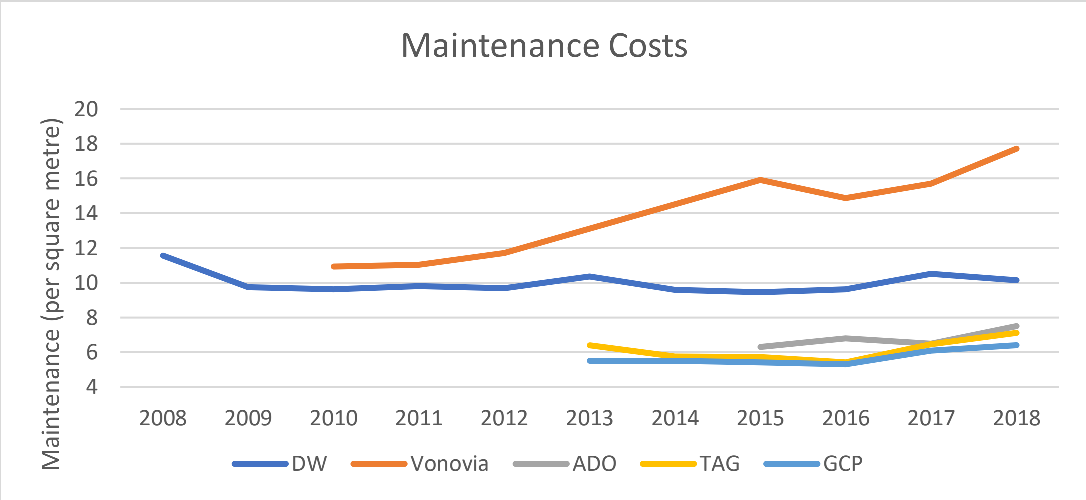
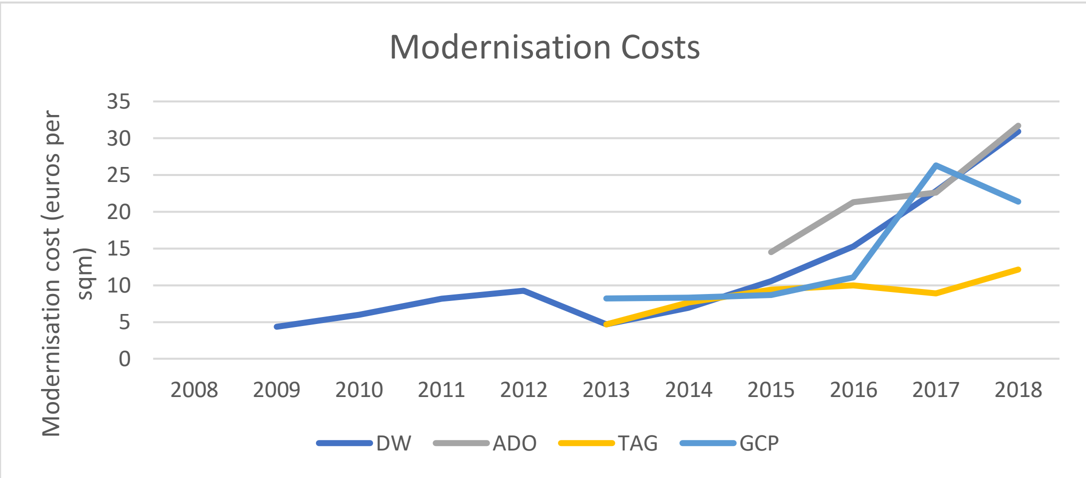


Figure 11 Modernisation Cost



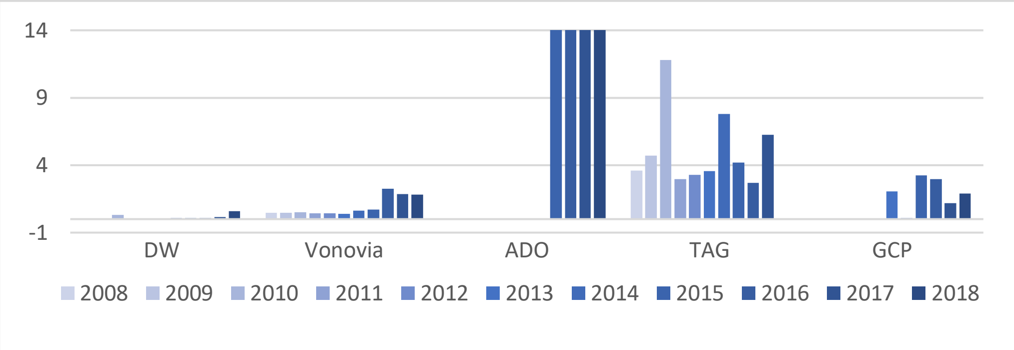
TAG's low modernisation expenses and low rental cost accompanying a healthy profit are cited by Bonczyk and Trautvetter (2019) as evidence that healthy profits are achievable without excessive modernisation. One must be careful with such an interpretation. TAG Immobilien's business strategy is "B suburbs in A class city" where rental prices are usually lower. This could indicate the process of spatial downgrading (see Uffer and Fields 2017), similar to Südpark in Halle (Bernt et al 2017) in which maintenance costs are centralised and reduced, the overall quality of the building neglected, in order to increase profit. Further qualitative studies would be necessary to confirm such a perspective.

6.3 Balance Sheet

6.3.1 Financial assets as a proportion of total assets

Aside from ADO, none of the firms have an increased representation of financial assets on their balance sheets, with less than 6% of assets being financial. 94% of ADOs assets are shares in other companies.

Figure 13 Financial Assets as a percentage of total



6.3.2 Equity and Loan-to-Value ratios

Further, all firms aside from ADO have increasing equity ratios (Figure 15), showing that assets are attributable to equity, rather than debt, and decreasing loan-to-value ratios (Figure **14**), showing that the total ratio of debt to assets is decreasing. These numbers suggest that debt leveraging is not occurring. ADO's assets are almost exclusively (94%) shares in firms of

Figure 15 Equity Ratio

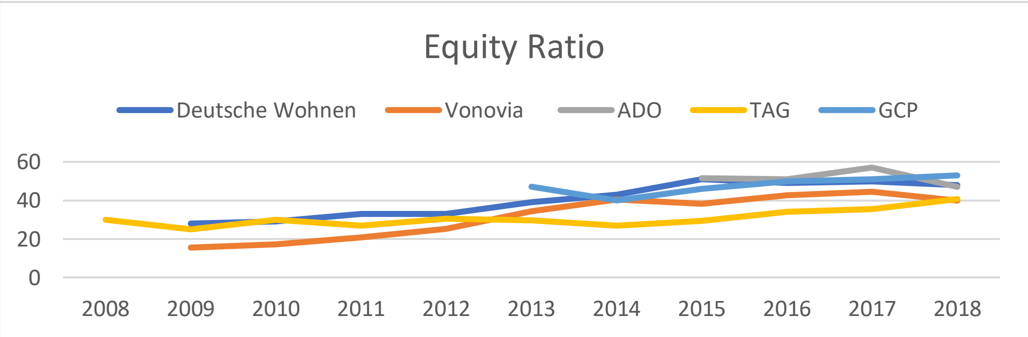
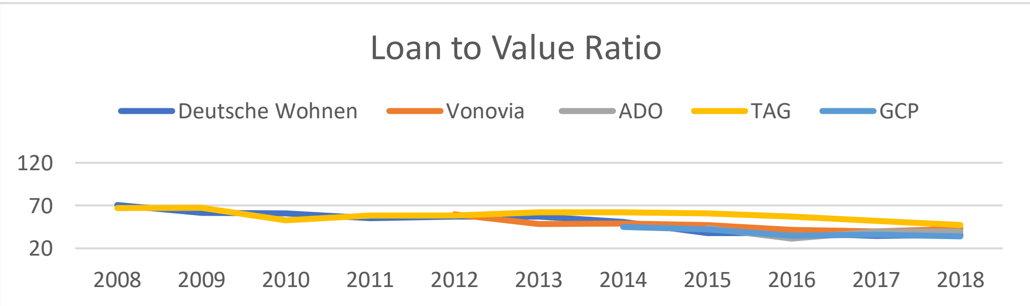


Figure 14 Loan-to-Value ratio



affiliated property-owning companies. A more detailed analysis into ADOs ownership structure would be required to determine whether they are debt leveraging.

6.4 Management Incentives

The following table outlines the basic incentives applying to the CEO (or COO for ADO). In most cases, these goals apply to all members of the management board, beyond the CEO but with varying remuneration.

Table 9 Management Incentives

	Short Term Goals and Incentives (Weighting)	Long Term Goals and Incentives (Weighting)	CEO Remuneration 2018 (thousands)
Deutsche Wohnen	Adjusted EBITDA without disposals (40%) Cost ratio (10%) Sales proceeds (30%) Non-financial goals (20%)	Relative share performance (50%) Property yield (EPRA NAV growth plus property yield) (50%) Period: 4 years	Fixed: €1,024 Short term: €500 Long term: €750 Total €2,309 LTI to STI Ratio: 1.5
Vonovia	Group FFO target (40%) Group adjusted NAV/Share (15%) Group EBITDA sales target (15%) Personal targets as set with supervisory board (30%)	Relative total shareholder return (25%) NAV per share (25%) FFO1 per share (25%) Customer Satisfaction Index (25%)	Fixed: €1,150 Short term: €700 Long term: €2,602 Total: €4,745 LTI to STI Ratio: 3.7
ADO Properties	AFFO per share (30%) Group NOI per share (20%) Net cold rent (50%) Occupancy rate (10%) Like-for-like (15%) Board discretion (10%)	Relative share performance (EPRA Germany Index) NAV per share as targeted by the board Period: Until end of service agreement	Fixed: €310 Short term: €140 Long term: €165 Total: €694 LTI to STI Ratio: 1.2
TAG Immobilien	NAV per Share FFO per share EBT per share (excludes appreciation of investment properties) Paid in cash, capped at €125,000pa.	Own share performance Relative share performance Period: 3 years Paid in shares, capped at €300,000pa.	(COO) Short term: €75 Long term: €210 Total €721 LTI to STI Ratio: 2.8
Grand City Properties	No information available	Like-for-like vacancy reduction Like-for-like rent increases Operational efficiency EBITDA per share FFO per share Earnings per share Financial ratios, improve rating to A- Period: 4 years	Fixed and variable: €354
Source: *2018 Annual reports, own calculations.*			

All companies have annual short-term incentives (STIs) usually paid in cash, and long-term incentives (LTIs) over a period of three to four years, usually tied to shares. The Deutsche Wohnen management board are expected to invest between 150 and 300% of their annual basic salary in their company's shares over a four-year period. Deutsche Wohnen has a STI based on sales proceeds, which can explain the growing volume of sales. Of all the firms, Vonovia is the only with a tenant-facing goal, with 25% percent of the LTI dependent on a customer satisfaction index. On the opposite end of the spectrum, ADO weights 50% of the STI on net cold rent, meaning management is incentivised with €70 000 to increase rent prices on a short-term basis. All the firm's LTIs relate to own share and relative share performance.

The ratio of LTI remuneration to STI remuneration has been calculated for each of the firms to demonstrate the scale of incentives over the long and short-term. The leader is Vonovia, whose LTIs pay nearly 4 times as much as their STIs, while ADO's ratio, at 1.2, incentivises short-term achievements almost as much as long term.

6.5 Summary

To summarise the findings: the indicators showed no evidence of the firms relying on financial instruments as an increasingly important source of profit: financial income, expenses, assets or liabilities did not represent an increasing proportion of profits or income generating activities. Not only was this not relevant, but in four of five of the terms, equity increased, and financial expenses decreased. The firms did show a strong focus on shareholder returns, seen through the distribution of high proportions of earnings in dividends, and a lack of new construction. Management incentives, and investment levels revealed an overall short-term focus.

The following section will discuss interpretations of the data and the practical implications of the results, specifically in relation to the price, quality, and quantity of the rental housing market. A brief summary of policy implications is included, and the chapter will close by acknowledging the study's limitations. Table 10 summarises the results.

Table 10 Summary of results

Revenue	**DW**	**Von**	**ADO**	**TAG**	**GCP**
Financial income as a % of profit	↓	‡	↓	↓	‡
Financial income (per unit)	↔	‡	↓	↓	‡
Financial income per unit (median value)	€ 16	€ 68	€ 92	€ 115	€ 11
Financial expenses as a % of profit	↓[14]	↓	↓	↓	↓
Financial expenses per unit	↓	↓	↓	↓	↑
Financial expenses per unit, median cost	€ 1,188	€ 1,709	€ 1,579	€ 1,556	€ 737
Sales income relative to rental income	‡[15]	↑	↔	↓	↓
Rental Price	**DW**	**Von**	**ADO**	**TAG**	**GCP**
Rental price (Berlin)	↑	↑	↑	↑	↑
Rental price change in Berlin 2008-18	33.5%	25.9%	15.6%	11.7%	15.4%
2018 rental price (per m^2) (New letting rent)	€6.70	€6.62	€6.73 (€9.42)	€5.62 (€6.14)	€7.60 (€12.60)
Surpluses	**DW**	**Von**	**ADO**	**TAG**	**GCP**
Dividends as a percentage of FFO	↑	↔	↔	‡	‡
Dividends as a percentage of FFO (Average)	44.0%	62.1%	46.3%	64.3%	36.9%
Maintenance Expenses	↔	↑	↔	↔	↔
Maintenance Expenses per m^2 (% change)	4%	62%	19%	11%	16%
Maintenance Expenses per m^2	€ 10.14	€ 17.72	€ 7.50	€ 7.11	€ 6.40
Modernisation Expenses	↑	↑	↑	↑	↑
Modernisation expenses per m^2 (% change)	610%	106%*	118%	160%	117%
Modernisation Expenses per m^2	€ 30.91	€ 35.30*	€ 31.70	€ 12.13	€ 13.90
New construction (% of rental income)**	4%	5%	***	0	0
Assets and Liabilities	DW	Von	ADO	TAG	GCP
Financial assets as a % of total assets	↔	↑	↔	‡	↔
Financial assets as a % of total assets (2018 value)	0.2%	2%	94%	6%	1%
Equity ratio	↑	↑	↔	↑	↑
Loan-to-Value (LTV) ratio	↓	↓	↔	↓	↓
Management Incentives	**DW**	**Von**	**ADO**	**TAG**	**GCP**
Ratio (Value of LTI to STI)	1.5	3.7	1.2	2.8	n/a
CEO Remuneration (2018, thousands)	€2,309	€4,745	€694	€721	€354

[14] There is a general stagnant trend, though peaking in 2015.
[15] Though this has a clear spike in 2015, the large acquisitions in the same year are likely to explain the then sale of non-core apartments. Thus, I have allocated a stable trend.

Table 10 (Continued)

Notes:
All calculations used as broad a selection of information as possible – details available from the author upon request.
Rental Price Change in Berlin. 2008-2018: Deutsche Wohnen and Vonovia. 2015-2018: ADO Properties. 2010-2018: TAG Immobilien. 2014-2018: Grand City Properties.
*between 2015 and 2017. ***Limited. Included addition of one level and one building.
↓ Decrease ↑ Increase ↔ Stable ‡ Sporadic or Inconclusive
Sources: *Annual Reports, **Bonczyk and Trautvetter 2019, 10*

7 Analysis and Discussion

The literature review and study of Berlin's history showed how short-term perspectives and budgetary crises led the city to sell huge amounts of public housing to private investors, initiating the first wave of financialisation of rental housing in Berlin. The findings from this study contribute to the study of financialisation of rental housing by continuing that story post-crisis and providing a comparative microeconomic analysis to track the development of a global phenomenon on a local scale.

Contrary to the first hypothesis, that the firms are relying on financial instruments for profit accumulation, the results indicate no evidence of profit seeking through financial means. While this challenges the financialisation literature, it does align with typologies of the German economy, which is characterised as being stable and less subject to financialisation (Detzer et al 2017). This could be due to an Anglo-bias in the literature, which predominantly focuses on the phenomenon of financialisation in the USA. It may also be explained by the currently high profits available in the housing sector which provide a lower-risk profit, thus providing a better return than financial markets. Further, due to the spatially fixed nature of housing, it isn't possible to offshore labour processes or production to cheaper locations (see Cushen and Thompson 2016) which would free up profits for higher return activities.

In line with the literature and the second hypothesis, the results generally confirm that these firms are primarily shareholder focussed. The literature discusses shareholder orientation as being enacted at the cost of productive reinvestment (as well as the labour process and income inequality, which are beyond the scope of this study). We see that three of the five companies invest a minimum amount of their rental income into new housing, with the two largest, Deutsche Wohnen and Vonovia, investing only four and five percent, respectively. In contrast, an average of between 44% and 64% of operating profits (FFO) are being distributed to shareholders.

The high cost of maintenance and modernisation borne by some firms can be interpreted as a productive investment into the housing stocks. Private investment into the maintenance and modernisation of housing stocks has been desired and incentivised by various government policies to create liveable conditions, as described in Section 3.1 'Historical Context'. Modernisation is also a strategy for realising higher rent potential and surpassing rent-control legislation. In the latter sense, it is being done for profit and is thus a signal of shareholder-orientation. The resulting increase in rent (either through a tenant co-paying for the modernisation, higher rents as a result of the modernisations, or an increase in the area rent, driving the *Mietspiegel* up) puts pressure on tenants, and can often price both in-place and potential tenants out. Categorising maintenance and modernisation expenditure as either shareholder-orientation or productive output is problematic. The level of investment from municipal housing companies could provide a baseline, but this is still arbitrary and fails to consider the heterogeneity of the housing stock. A case-by-case, qualitative analysis which also considers the economic and social consequences modernisation is required to understand where modernisation is being done for profit, or to preserve the quality of the housing stock.

In all firms, management incentives are linked to shareholder values, with all five companies tying these incentives to shareholder returns and share performance. Of the five firms, only Vonovia incorporates any aspect of tenant satisfaction into the management incentives. The third hypothesis asserted that firms would have a short-term outlook, through aligning management remuneration to stock values, and thereby encouraging activities that increase short-term share value. Analysis of management incentives confirmed this. I also predicted the sale of houses to take precedence over rental income, for both existing units and new construction. For new construction this is true, with large proportions of new housing being sold as condominiums. The sale of apartments did not appear to be more important for these companies in most circumstances, with rental housing remaining their primary business. The findings agree with the perspective that financialisation is a complicated, variegated process and unique to every sector (Aalbers 2017).

The practical implications to these findings relate to the price, quantity and quality of rental housing in Berlin. The high demand for rental housing in Berlin could either be met with an expanded supply or an increased price[16]. The shareholder orientation and short-termism as discussed above have meant that these firms are engaged in very little new construction. They are benefiting from the increased demand pushing prices up. The findings reveal that these firms actively seek price increases as part of their business model and do very little to increase the supply, and perhaps the opposite. For example, short-term, furnished housing is an innovative product from ADO Properties which benefits from the increased prices, while also reducing the stocks of houses available for long term rent. It can also have a compounding effect on rent price increases (e.g. Barron et al 2018.).

The contribution of new housing tends to be of luxury apartments. While new building does contribute to an increase in overall housing stocks, they have a minimal effect on *rental* housing stocks, and very little on affordable housing stocks. Even in luxury apartments, the costs of construction take time to be recouped through rent, and certainly not in the 3 or 4 year "long-term" goals of managers. Thus, we see that a high proportion of new constructions being sold as condominiums (e.g. 66% proposed for Vonovia). The burden of constructing (affordable) new housing then, lays on municipal or non-for-profit housing cooperatives.

Housing supply is generally inelastic, limited by availability of land, high barriers to entry in the market, construction time, construction costs, and labour supply. Berlin, unlike more dense and established cities such as New York, has a reasonable supply of undeveloped land (Fields and Uffer 2016), and in comparison to other German cities, Berlin's building regulation has been referred to as a "playground" by one real estate manager (Kersting and Gray 2018). Availability of labour may be a limiting factor, with a shortage of 150 000 skilled construction labourers nationwide (Welt 2018). The profits available from constructing affordable housing may be unattractive: a UK based study from Archer and Cole (2015) notes a decrease in the volume of new construction accompanying an increase in profits, attributed to increased construction of luxury housing. These factors need to be considered when examining the behaviours of these firms. However, profits being achieved by the municipal housing companies shows that construction of affordable housing can still be profitable, if not to the same extent that private firms achieve.

A shortage of new construction and the investment in modernisation has increased rental prices. This has put a particular strain on low income households. Fields and Uffer (2016) saw that the presence of financial actors "heightened existing inequalities in housing affordability

[16] Glaeser at al 2006 have researched supply determinants to investigate whether increased demand results in more expensive housing and higher paid workers, or an increase in supply. Further research into the income effect of increased housing prices could be done on Berlin.

and stability, and rearranged spaces of abandonment and gentrification" (2016, 1486). Increased rental prices decrease affordability, creating financial barriers for new tenants. ADO Properties, for example, state this as an implicit goal: that a strategy of modernising, refurbishing and reposition their properties, "allows and also leads us to choose *high quality tenants* which continuously improves our tenant structure" (ADO 2017, 59, own emphasis). The transformation of rental houses into for-sale condominiums[17] has the same effect: only the affluent can afford to buy. Upgrading of an area also has an impact on existing tenants. The Berlin *Mietspiegel*, which sets maximum rent levels for an area, is determined based on new-letting rents from the previous four years, rather than in-place rents. This means that sitting tenants are still subject to rent increases based on the increasing prices of surrounding apartments. Depending on how they are enacted, tenant protections can cause an insider-outsider problem, with those already in housing protected from extreme price increases, but also unlikely to move as a new house would be more expensive. This has implications for economic productivity, as workers aren't flexible with moving. It also leads to an inefficient allocation of space. Empty nesters[18] or the elderly may have very old contracts for apartments which exceed their needs, but increased rental prices mean it would be more expensive to downsize.

Part and parcel of the gentrification[19] problem is the "squeezing" (August and Walks 2018) of low-income groups to the periphery, which become refuges for disadvantaged people (Heeg 2013). There are many documented accounts of what happens when private companies buy houses. High vacancy or tenant turnover allows firms to renovate and upgrade. In one interview conducted by Uffer, policies that favoured white, middle class families was confirmed by a housing company representative, as "this minimises conflicts and creates in the investor's view a stabilised tenant structure which the investor's housing company also advertises" (2011, 121). A stagnation or decrease of maintenance expenses on a firm's financial statements may indicate a neglection of housing stocks, but as most firms have property over a range of income areas, qualitative studies, such as those by Uffer (2011) and Bernt et al (2017) are necessary to interpret the actual implications of numbers in a financial report.

Many policy implications can be drawn from these findings. Short-term perspectives are not conducive to affordable housing, regardless if taken by commercial real estate agents or

[17] A condominium is an owned (as opposed to rented) apartment. In German, *Eigentumswohnung.*
[18] Empty nesters: parents whose children have grown up and left home.
[19] Gentrification: the process of changing a neighbourhood's character to suit more 'middle class' tastes, through the influx of more affluent businesses and residents. (Lees, Slater and Wyly 2010)

government, For the sustained supply of affordable, long-term housing, a long-term perspective is needed.

Berlin and Germany have introduced or enacted multiple laws to control rental prices, such as the Mietspiegel, rent price brakes, a rent ceiling, and restrictions on short-term letting (e.g. AirBnB). These have been successful to varying degrees (see e.g. Thomschke 2016, Kholodilin et al 2016, Kholodilin et al 2018). The ruling SPD party has proposed further strategies such as limiting foreign purchase of property[20], limiting commercial purchase of land, municipalities having first preference to buy, taxing land speculation and ending the modernisation surcharge when investment has been recouped (Woolsey 2019). Many of these measures are facing significant political and legal opposition. Alternatively, disincentives on the trade of condominiums, such as higher transfer taxes, would also hamper gentrification (Voigtländer 2017), and an 'empty house tax' such as in London, could also reduce speculation on the asset value of an apartment. However, the overwhelming problem of a supply shortage won't be solved without significant new constructions.

To overcome the current supply shortage, policies that promote the construction of rental housing are necessary, specifically policies that are focussed on a sustainable supply of affordable housing for a diversity of household incomes. For example, incentives to encourage non-profit involvement in the housing market, which may crowd out profit-maximising firms or homeownership (Kaas et al 2017 and Hilber 2007[21]), may have a positive impact on housing affordability. In this vein, the reintroduction of the charitable status of public housing has been proposed (Holm et al 2017). Perhaps changing the structure of *Kinderbaugeld* to suit inner-city families, for example, for the construction of cooperative multi-family housing.

Private investment into constructing new housing is important but must be focussed on supplying for a variety of income levels, as well as ensuring stakeholder and not just shareholder perspectives are prioritised. Incentives to build new housing should not be accompanied by a replacement of the welfare state, where the role of wealth accumulation via property risks becoming a quasi-retirement plan. This will only further serve to increase instability and unaffordability, as well as "insider/outsider" problems (Wijburg & Aalbers 2017).

The shortage of available workers is a problem, and perhaps greater pressure should be placed on larger companies to train apprentices. Available federally-owned land should be first offered to municipalities and not-for-profit organisations at a reasonable price. While smaller

[20] Apartment sales to foreigners accounted for up to 68% of sales in 2015, up from 14% in 2009 (Schaer 2018).
[21] Specifically, Kaas et al (2017) and Hilber (2007) argue that a large social housing sector reduces the rate of homeownership.

apartments have environmental and land-use benefits, regulation should ensure a high standard of living is maintained for all income levels.

The generalisability of the result is limited by the small sample size, and the reliability of the data is dependent on firms' self-reported financials. Further, data is not always exactly comparable between firms despite the use of internationally standardised accounting practices. It was not possible to examine the role of small private landlords due to a lack of available data. It was beyond the scope of this study to confirm sector wide trends, for example, by comparing financial behaviours of municipal housing companies, private landlords, commercial companies, and cooperatives. While stock buybacks can also present evidence of shareholder value orientation, for the need to limit the scope of this study, they were not included.

8 Conclusion

This paper looked at the literature on financialisation and housing and examined the process of financialisation of rental housing in Berlin. Beginning with a study of how Berlin's endowment of public housing was sold to private equity investors, and then onto large, listed real estate companies in a process of financialisation characterised by the presence of large investors owning large stocks of the built environment. Based on a body of financialisation literature that looks at the increasing role of finance in non-financial firms, this paper took a microeconomic approach: examining the financial reports of these firms to determine patterns of accumulation through finance, increasing shareholder value orientation, and short termism.

The findings revealed that none of the firms increasingly relied on financial instruments for profit but did see increased shareholder orientation and short termism. The supply of housing has not been increased by these firms, and the construction of affordable housing has been left to municipal housing authorities. The quality of housing appears to have improved especially in inner-city areas, with profit-oriented modernisation driving up the rental price. This may have had the effect of pushing out low-income households to the periphery, however, qualitative studies would be necessary to confirm this. The price of rental housing has increased, more so for newly agreed rents, though in-place tenants are still affected.

Further research could be focussed on the impact of increasing house prices on income levels and housing affordability, as well as comparative studies between the different providers of housing. Qualitative research into the 'upgrading' and 'downgrading' of Berlin would provide greater insight into the strategy of for-profit firms.

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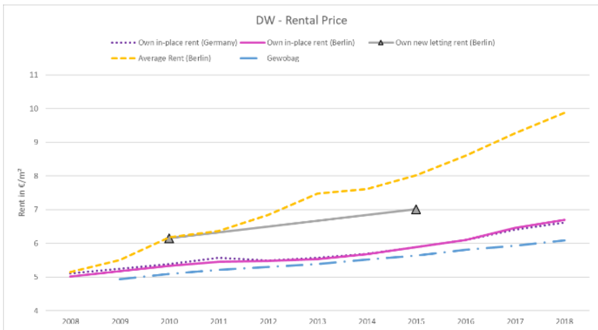
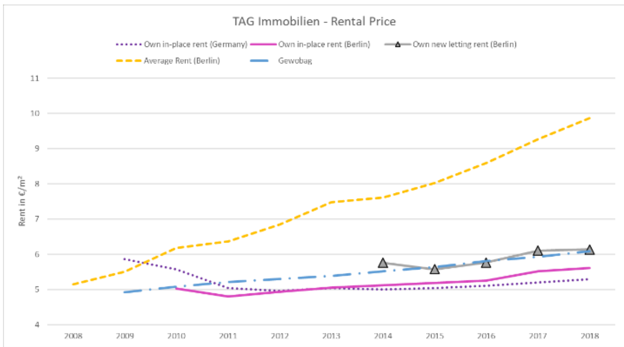
10 APPENDICES

Appendix 1 Rental prices by firm

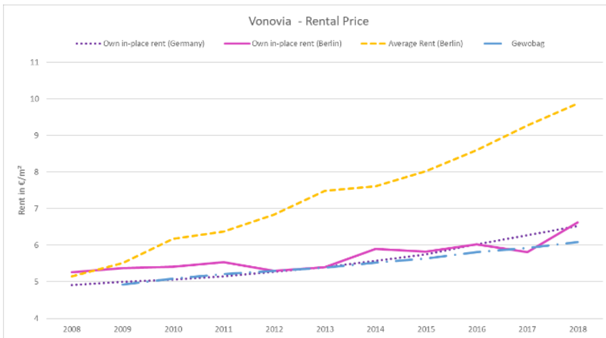
Deutsche Wohnen



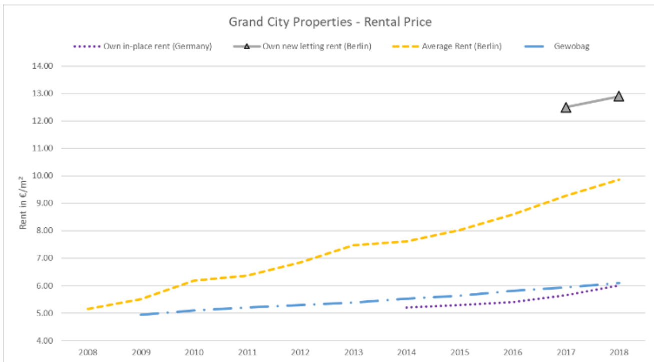
TAG Immobilien



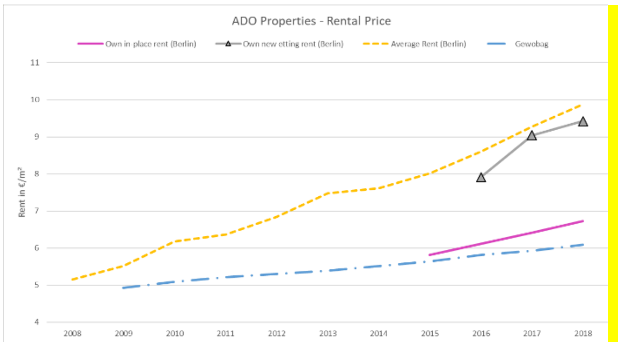
Vonovia



Grand City Properties



ADO Properties



Imprint

Editors:
Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Pédussel Wu, Reingard Zimmer

ISSN 1869-6406

Printed by
HWR Berlin

Berlin January 2021