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The Law of Housing Inequality. A theoretical exploration

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Differences in the quality, size and location of people's homes are often linked to differences in individuals' economic status. This disparity in housing is known as *housing inequality*. The article displays how the interplay between law and economics enables and enhances housing inequality. The concept of "the law of housing inequality" is introduced to demarcate an object for further research. The article argues that housing inequality is a necessary feature of the neoliberal economic paradigm, but not necessary in relation to other paradigms. Addressing the problem of housing inequality therefore requires a holistic view of the legal-economic system.
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Conceptualizing housing inequality

The notion of housing inequality can refer to different things. For instance, it can refer to unequal housing conditions, unequal distribution of housing and unequal housing wealth. The concept of housing inequality must be understood as separate from the concept of housing shortage. Housing inequality suggests that the problem is not simply a shortage of housing, but a shortage of housing that's affordable for all. An example is Gallent (2016) who argues that England's housing problems are rooted in unequal distribution of houses, not in an under-supply of housing. Simply increasing the housing supply, without addressing the issue of increasing inequality, could even make things worse. It could increase the number of empty houses, for example, houses that are investment objects rather than homes (Dorling 2014). Moreover, it has previously been shown that increasing the housing supply will not solve the affordability problem if, for instance, housing demand increases at the same time (Fingleton 2008).

This article assumes that housing inequality includes two interrelated components. First, housing inequality refers to the discrepancies of housing affordability within a society. Second, it refers to discrepancies in housing wealth.

Housing affordability is a complex term. Haffner and Hulse (2021) explicate the different historical conceptualizations of housing affordability. In an early research stage, housing affordability was interpreted as an empirical measurement comparing housing costs to income. This work tried to establish a

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norm of housing affordability in relation to a poverty line by using a budget to determine necessary expenses in rent, food and so on.

In the second half of the twentieth century, researchers questioned the appropriateness of using a single ratio to set a normative standard. A "quality-based" measure was added to the numerical exercise. The purpose was to distinguish between households whose income is too low to finance necessary consumption and those for which housing consumption is considered too high due to their preferences (Lerman and Reeder 1987). The critique led to the development of a residual income approach, meaning that a robust budget standard for non-housing consumption forms the baseline, taking into account household type and size. This baseline can be used to estimate whether there are sufficient funds for housing expenditures after the baseline costs have been met (Stone 2006). Determining the acceptable baseline is partly a normative endeavor. There are different approaches to determining the baseline, taking the social and cultural context into account. One way is to assume "objective" needs for housing in a socio-cultural context, defined in physical and spatial terms. Another way is to define needs in relation to cultural-specific norms, which affect the opportunity for social participation (Ytrehus 2000).

In the aftermath of the 2008 financial crisis, housing affordability is increasingly discussed in terms of intergenerational and spatial inequalities. Concerning intergenerational inequalities, first-time entrants to the housing market are not able, without parental support, to access homeownership and end up in the rental market where they are likely to remain for long periods (Arundel and Ronald 2016; Eaqub and Eaqub 2015; Lennarts, Arundel and Ronald 2015; McKee 2012, McKee, Moore, Soaita and Crawford 2017). Spatial inequalities concern the fact that lower- and middle- income households are forced to move further and further away from inner cities. This leads to longer commuting time, higher commuting costs and lower access to city resources (see for instance Baum and Gleeson, 2010; Randolph and Freestone, 2012; Holliday and Dwyer 2009; Hunter, 2014). Coupled with these effects is a phenomenon called "spatial lock in". It means that people who move to more affordable areas may not be able to move subsequently even if their needs change, due to change of employment or family matters and so on (Hulse, Burke, Ralston and Stone, 2010). Housing inequality is also connected to other inequalities, such as health inequality (Baker et al 2014; Daniel et al 2018), discrimination against immigrants (Allen 2022) and stigmatization of people with disabilities (Aitken et al 2019). But, while this article acknowledges that housing affordability is connected to intergenerational, spatial and other kinds of inequalities, it will not explore these interconnected inequalities further.

Housing wealth refers to the monetary value of homes. In the 1980s and 1990s, a widely held belief was that increased homeownership rates would contribute to decreased wealth inequality (Arundel 2017 p. 177-178). This claim is refuted in later research (Christophers 2021 pp. 577-578 with further

references). Housing wealth plays a significant role for rising economic inequality.

Discrepancies in housing affordability and housing wealth mirror and reinforce each other. Housing affordability determines who can and cannot accumulate housing wealth. Discrepancies in housing wealth therefore affect levels of economic inequality that, in turn, affect housing affordability. The result could be a vicious spiral where increased economic inequality contributes to escalating housing prices, that in turn increase economic inequality. James et al (2024) use the term "constitutive relation" to capture the overlap of inequalities and housing. They see housing inequality as a conceptual tool that bridges housing research across disciplines, such as the disciplines of economics and law. Similarly, this article uses the concept of housing inequality to capture the constitutive relation between housing affordability and housing wealth accumulation.

Previous research

A literature review of scholarship focusing on housing inequality was recently conducted by James et al. (2024). The study looked at 432 research articles, divided into four groups depending on how they address housing inequality. The first group views housing inequality as an outcome of a market society. This literature commonly suggests that affordability drives housing access and quality, which manifests as inequality (Ferrari, 2015; Dewilde and De Decker, 2016; Gallent, 2016; Wetzstein, 2017).

Some of these articles are focused upon the tension between housing as a home and as an investment object in financialized homeowner societies, particularly where a private rental sector has emerged as a response to the housing crisis (Aalbers et al, 2021; Sørvoll, 2019). Several studies display how the financialization of the private rental sector usually benefits the interests of the investor, even if it's to the detriment of the common welfare of the urban community (Aigers 2022; August 2020; Fields and Uffer 2016; Wijburg and Waldron 2020). These articles frame housing inequality as a market outcome, displaying tenants' experience of home in rental tenures as significantly more precarious in terms of insecurity, economic burden and lack of control over one's home than homeownership. This is particularly the case in societies with poorly regulated residential tenancy systems (Arbaci and Rae 2013; DeLuca et al 2013; Wiesel 2014; Thomas et al 2016; Diaz McConnell 2017; Webb et al 2017; Tranter and Donoghue 2017; Aarland and Reid 2019; Mandič 2018; Lennartz and Helbrecht 2018; Bullock et al 2020; Leifheit et al 2020; Egner and Kayser 2020; Benfer et al, 2021; Kubala and Hořen Samec 2021; Chakraborty et al 2021).

Housing inequality as a market outcome can also be studied in terms of disparities between different housing markets. Several articles observe a growing divide between hotspot markets and more peripheral and cooler

markets. Hence, housing inequality can be studied as uneven capital flows across space. This is usually connected to disparities in labor market opportunities (Wind et al 2017; Hochstenbach 2018; Hochstenbach and Arundel 2020; Arundel and Lennartz 2020; Le Goix et al 2021).

The second group of articles frames housing inequality as a situation experienced unevenly across populations. This research is focused upon the differences in housing opportunities and housing qualities among different groups of a population such as Indigenous or other marginalized groups as compared to the majority of the population (Coates et al 2013; Goodyear 2017; Lukes et al 2019).

The third group considers housing inequality to be an unintentional product of housing public policy. For instance, Arundel and Ronald (2021) and Carr (2011) show how certain policies designed to promote affordable property ownership led to the exclusion of lower-income groups from homeownership. These effects are hidden by dominant housing narratives of government and industry. Thus, Heslop and Ormerod (2020) argue that housing disinvestment and unequal wealth distribution are unintentionally produced by a policy narrative that portrays the housing crisis as an issue of overregulation and supply constraints rather than affordability.

The fourth group frames housing inequality as a product of dominant cultural norms. These studies focus on societal norms creating a preference for homeownership. For instance, McKee et al (2017) analyze housing as a marker of social status. They argue that perceptions about desirability of home ownership have consequences for typical life course stages, such as delayed family formation. Ideas of diminished life quality shape discourses about the private rental sector. Research by Fikse and Aalbers (2021) highlights a discrepancy between discourses in support of homeownership and the lived reality of mortgaged homeownership.

This article fits within both the first and third groups. I frame housing inequality as an outcome of market forces and as a product of public policy. Market forces and public policies mutually affect each other. And market forces are dependent upon the legal system. The legal system can be compared to a complex plumbing system, channeling the water (economic forces) in different directions. Yet, it is also the other way around. As will be elaborated later in the article, economic forces exercise pressure on politics and resulting law. This can be exemplified by the resistance to eliminating tax benefits for homeowners, once the share of homeowners in a society has grown large enough.

Aim and outline

The purpose of this article is to frame and develop "the law of housing inequality" as a research object. As will be explicated in the following section, the term "law" is used in a dual sense to capture both legal regulations and the economic forces that enable and enhance housing inequality. There are several

research articles on how the combined effects of monetary and fiscal policies have contributed to house price appreciation and uneven distribution of housing wealth (e.g. Schwartz and Seabrooke 2008; Palley 2012; Rolnik 2013; Aalbers 2016; Adkins et al 2021). This article adds on the existing research literature by highlighting specifically the challenges and potential of law to accomplish change. It argues that housing inequality is a necessary feature of the neoliberal economic paradigm. By "necessary" I mean that housing inequality is a cog in the economic machinery and not a malfunction. This is shown by the fact that, as will be elaborated later in the article, any change to address the problem of housing inequality within the neoliberal paradigm faces challenges that threaten the contemporary functioning of the economic system. Housing inequality performs a function of sustaining the contemporary economic system. The purpose of the article is not to legitimize housing inequality, but to argue that the solution to the problem requires a more fundamental reorganization of the economic system.

The article doesn't provide a detailed analysis of the regulations of any particular country, but it does use examples from different countries to support the reasoning. Contrary to legal doctrinal research that deals with a particular piece of the legal puzzle in a specific jurisdiction, this article attempts to make conceptual sense of the whole puzzle relevant for housing inequality.

The "law" of housing inequality

For the purposes of this paper, the term "law" is used in a dual sense. First, it is used to describe all legal regulations that enable or enhance housing inequality. Obviously, there is no legal act called the law of housing inequality. There are no provisions with the explicit purpose of promoting housing inequality. Yet, housing inequality is a fact, and is realized, or at least not sufficiently counteracted, by law. As will be elaborated later in the article, it's not just one, but several areas of law that contribute to it. This includes legal areas that may not be thought of as relevant for housing inequality at first sight, such as labor law. The focus here will be on the broader connections between different areas of law and housing inequality. The totality of these rules is what I call the law of housing inequality.

In addition to legal rules, I also include monetary policy in the term "law". In most countries nowadays, monetary policy is decided upon by independent central banks instead of parliaments. Monetary policy is not law in a legal positivistic sense, but the deregulation of it doesn't make it less political. It is a social construction and can be changed, much like any legal provision can be changed. I include it in the concept of "law" because of its tremendous impact on housing prices. A theory of the law of housing inequality would be inadequate if it excluded monetary policy.

Second, the term "law" is also used to describe the "laws" of economics. This usage of the term does not refer to legal provisions, but to the causality or

correlation of events. A comparison can be made with the term "the laws of physics". In contrast to this term, the laws of economics are not natural. They are a product of social constructions and can be changed. The reason for using the term "law" in this dual sense is, as I mentioned earlier, that law and economics mutually affect each other in the production of housing inequality.

Housing affordability statistics

Housing prices have escalated all over the world in recent decades, especially after the financial crisis of 2008. This has resulted in serious housing affordability and wealth inequality issues (Causa et al 2020; Bosch 2022).

Escalating housing prices raise the threshold to the home ownership market, particularly for lower- and middle-income groups. A tool for measuring housing affordability is the housing price-to-income ratio. It shows how housing prices develop as compared to annual average incomes. The following graph shows the development of housing prices and the price-to-income-ratio in OECD countries from 1996 to 2023 (OECD 2024a). Note that the price-to-income ratio rose quite sharply the decade before the financial crisis of 2008. A decade after the crisis, the upturn in price-to-income ratio was once again very steep. Following the inflation crisis of 2022 and rising interest rates, the price-to-income ratio decreased. The real rent price index decreased when the Covid-19 pandemic struck. This is likely to be a combined effect of the introduction of caps on rent prices in many countries, alongside emergency support measures.

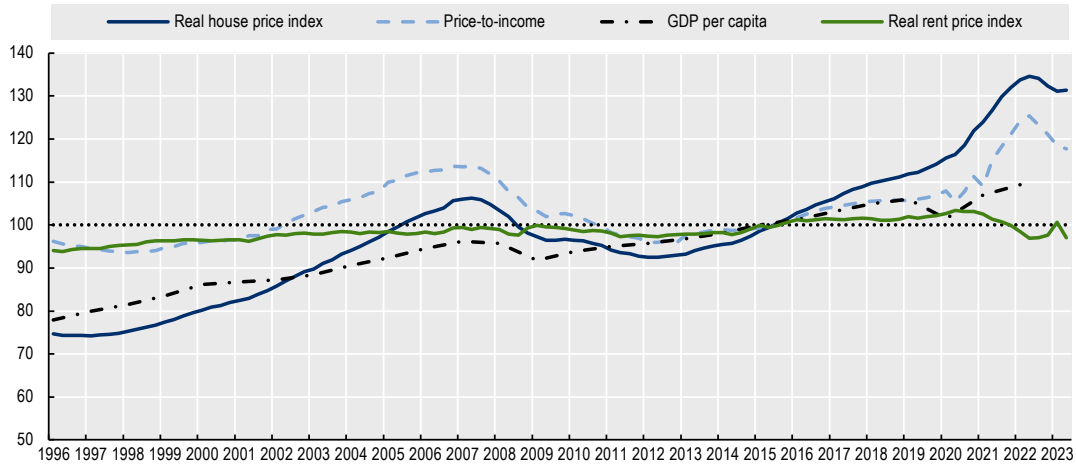

Figure 1. Representation concerning gender.Real house prices, real rent price index, price-to-income ratio and GDP per capita indexed to 2015, OECD average 1996-2023.

A rising housing price-to-income ratio indicates declining housing affordability, interpreted as a relationship between price and income. Yet, the measurement has its limits. The average household's recurring housing costs can decrease even if housing prices escalate. It depends upon how much housing prices increase in relation to how much the interest rate is lowered. This will be explained in more detail in section 8.

Housing expenditures usually constitute a higher burden for tenant households than for owner-with-mortgage households. The median rent burden is highest in Finland (32 %), Norway (29 %), Sweden (29 %) and the Netherlands (29 %). For owner-with-mortgage households, the mortgage and interest burdens are considerably lower: Finland (14 %), the Netherlands (13 %), Norway (18 %), Sweden (7 %). This is shown in the following graph (OECD 2024b):

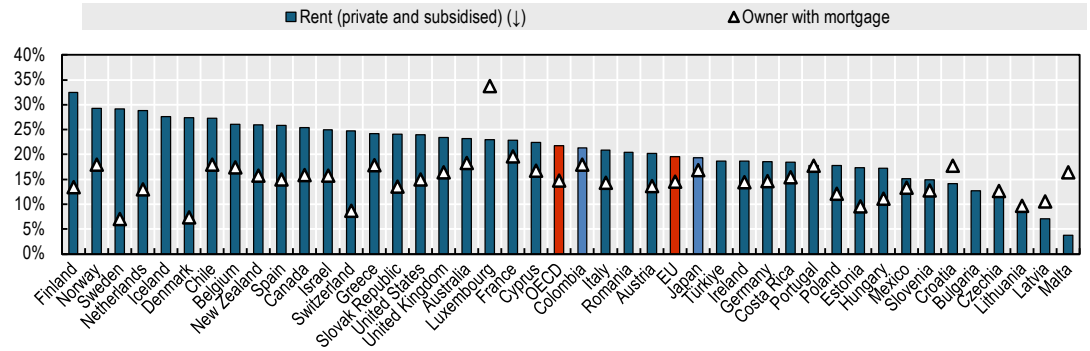

Figure 2: Median of the mortgage burden (principal repayment and interest payments) or rent burden (private market and subsidized rent) as a share of disposable income, in percent, 2022 or latest year available.

In many countries, like Australia, Finland, Italy, Portugal, Spain, Sweden and the US, the share of household income spent by homeowners on housing has decreased over the period 2010-2022, while the share spent on housing by renters has remained more constant or increased. In Germany and the UK, the share spent on housing has decreased for both homeowners and renters, although it has decreased more for homeowners (OECD 2024c). At the same time, housing is the largest share in total household expenditures and housing's share in total household expenditures increased from 20,7 % to 23,8 % between 1995-2022 in the OECD countries (OECD 2024d). The share of a household's annual income spent on housing expenditures also varies considerably across different income groups. In nearly all countries, housing costs as a share of annual income is the highest in the bottom quintile of the income distribution. The following graph displays the differences between the bottom quintile and the 3rd quintile in a selection of countries (OECD 2024e):

	Rent (private and subsidized)		Owner with mortgage	
	bottom quintile (↓)	3rd quintile	bottom quintile	3rd quintile
Sweden	41,5%	23,3%	11,0%	7,3%
United States	40,8%	20,8%	39,0%	17,1%
Switzerland	40,0%	23,2%	14,3%	8,4%
Netherlands	35,7%	22,9%	13,1%	14,4%
United Kingdom	33,2%	18,7%	27,2%	17,1%
OECD	32,5%	18,1%	27,1%	16,8%
France	29,8%	19,4%	29,8%	20,2%
Germany	26,8%	16,3%	-	16,2%
EU	28,9%	18,3%	26,9%	16,6%

Figure 3: Median of rent burden (private market and subsidized rent) as a share of disposable income in the bottom and the third quintiles of the income distribution and median of mortgage burden (principal repayment and interest payments) as a share of disposable income in the bottom and the third quintiles of the income distribution, 2022 or latest year available.

Another way of measuring housing affordability is the overburden rate. According to the OECD graph below, a household is considered overburdened by housing costs if the household spends more than 40 % of its disposable income (after tax) on housing. In most countries, the overburden rate is lower among owners than tenants, but there are noticeable exceptions like Denmark. In the OECD statistics, the highest overburden rates among tenants (non-subsidized) are found in The Netherlands (25,6 %), New Zealand (24,8 %), Chile (22,8 %), Finland (22,2 %) and Norway (21,5 %). Regarding owners with mortgages, the highest overburden rates are found in Denmark (36,6 %), Luxembourg (30,6 %), Greece (15,2 %), Colombia (15,2 %) and Romania (12,7 %). This is displayed in the following graph (OECD 2024f):

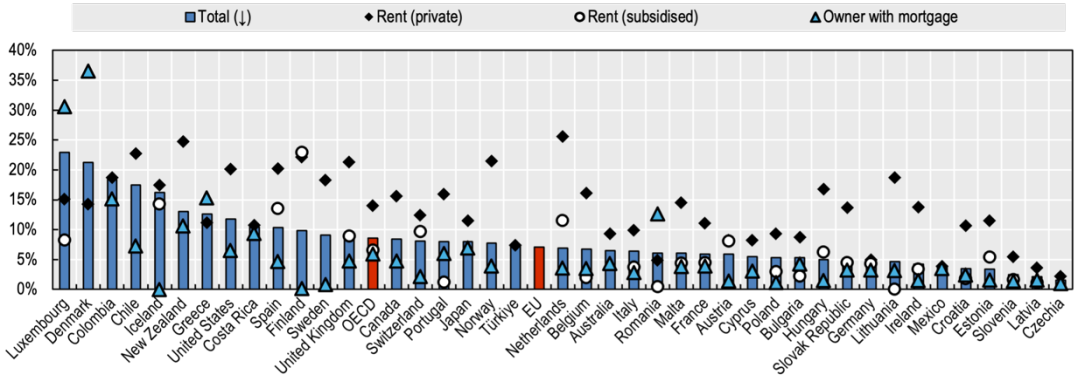

Figure 4: Share of population spending more than 40% of disposable income on mortgage and rent, by tenure, in percent, 2022 or latest year.

The overburden rate also varies, as one would expect, across different income groups. In Finland, New Zealand, Spain, the UK and the US, about 50 % of the bottom quintile of tenants in the private rental market are overburdened by housing costs. In central and eastern Europe, the overburden rate among tenants in the bottom quintile is lower than 20 %. In almost all countries, tenants in subsidized rental dwellings are far less overburdened than tenants on the private rental market (OECD 2024f). For owner with mortgages in the bottom quintile, the highest overburden rates in the OECD statistics are found in Colombia (57,7 %), New Zealand (54,4 %), Luxembourg (52,1 %), Chile (44,4 %) and the US (43,4 %). This is displayed in the following graph (OECD 2024f):

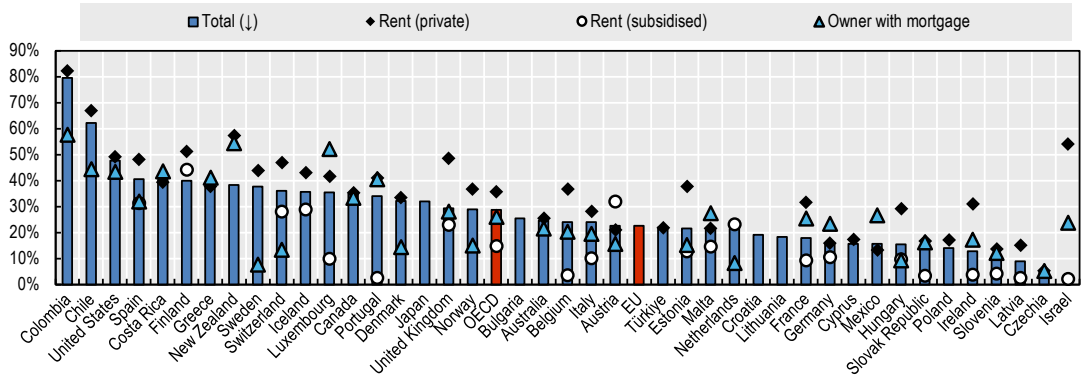

Figure 5: Share of population in the bottom quintile of the income distribution spending more than 40% of disposable income on mortgage and rent, by tenure, in percent, 2022 or latest year available.

Housing and the circulation of capital

To display how law and economics interplay and affect housing inequality, I will depart from Aalbers and Christophers' (2014) conceptualization of housing from a political economy perspective. They analyze housing from the category "capital" in its three primary and mutually constitutive guises: capital as process of circulation, capital as social relation and capital as ideology.

By departing from Marx, they describe capital as a process of circulation in the following way. First, money is utilized to purchase the means for production, primarily raw materials and wage labor. Second, the means are mobilized to produce goods and services. Third, the goods and services are sold on a market (realization) in exchange for money. The price, or exchange value, includes the money invested in the means of production plus a surplus value. What is left after consumption expenditures and deductions for things like interest and rent is then reinvested in the production chain once more. Capital is money in circulation; money in the process of generating more money (Aalbers and Christophers 2014, pp. 375-379).

Housing relates to this process of circulation in different ways. Housing is itself an output of the production process. It is also a storage of value. Before the surplus value is reinvested, it must be stored somewhere. Money is one way of storing it, housing is another. It can pay to invest in the production of housing, but also in the ownership of it. This is the case because existing houses also circulate. We buy and sell them, either to satisfy our different housing needs or to exploit a house's exchange value over that of another.

Housing also enables capital to circulate. The process of circulation can break down, creating an economic crisis, if there is not enough effective demand. This can be due to people not affording the products and services being produced. Housing provides a means of funding effective demand when other sources dry up. When housing prices go up, the demand for products and services tends to go up as well. It is evident that the consumption level rises for those who sell

their homes and make a profit, but even those who don't sell usually feel wealthier and consume accordingly when housing prices rise (Wood et al 2013).

When effective demand dries up, the incentives to invest in the production of goods and services will also dry up. This causes a problem of overaccumulation of capital. Housing provides an outlet. According to Harvey (1985), housing production serves as an overflow tank into which overaccumulation from other sectors can be switched. Between 1980 and 2010, the world's financial assets grew by a factor of 16,2 whereas the world's GDP increased by less than a factor of 5. This imbalance between the size of the financial capital and the productive markets increased the need for additional investment options. Housing emerged as one of these new fields for surplus investments. The transformation was enabled via public policies such as relaxed credit regulations and tax benefits (Rolnik 2019 pp. 16-18).

I have created the following illustration to explain housing as capital in circulation. The illustration integrates economic inequality in the supply and demand model.

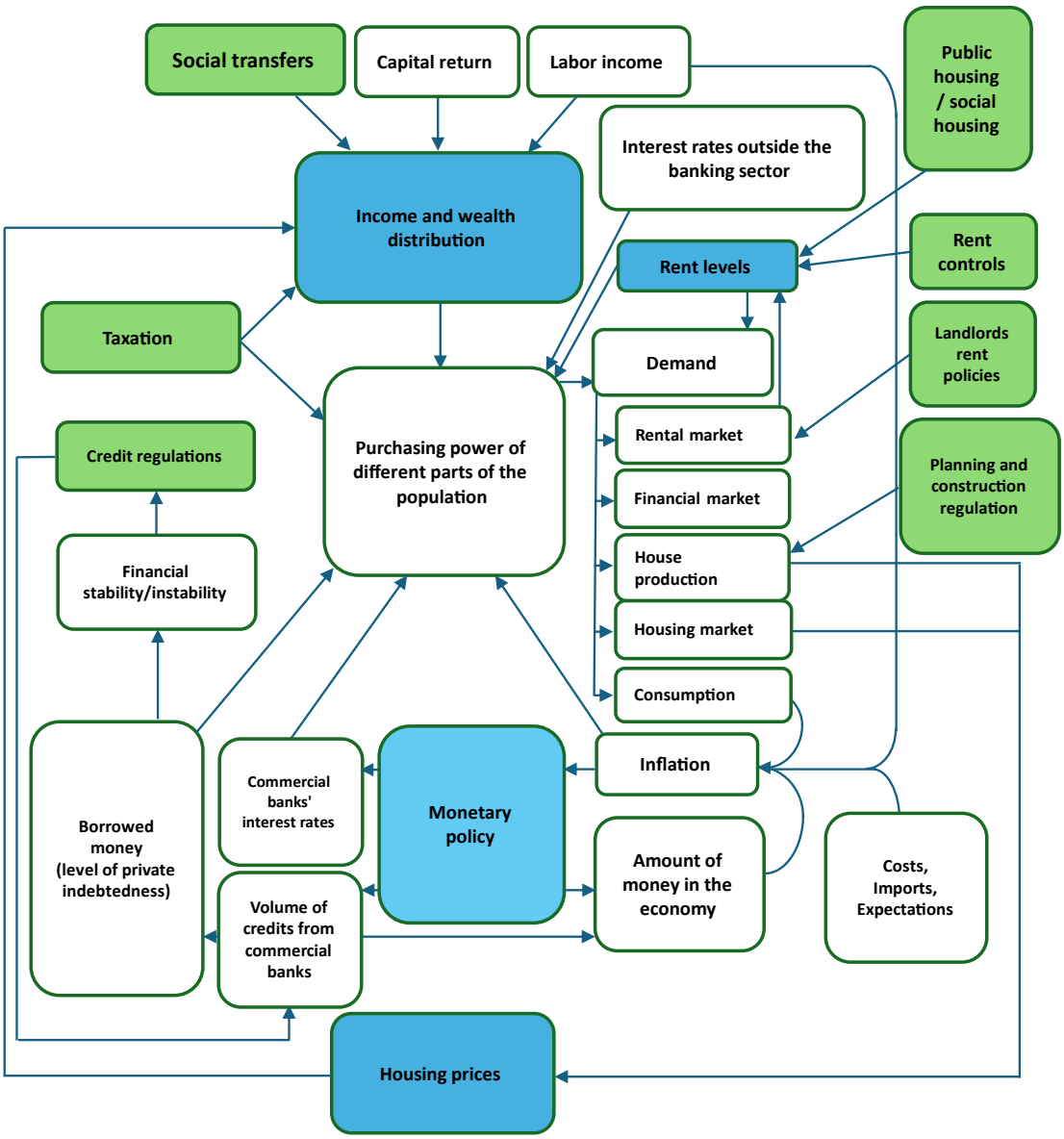

Figure 6: Housing as capital in circulation

The top end of the illustration shows that income and wealth distribution is affected by income from labor, capital and social transfers. Income and wealth distribution affects the purchasing power of different parts of the population. In turn, the purchasing power of different parts of the population affects aggregate demand in society. The demand could target housing production, existing houses and rentals, varieties of consumption or investments in financial assets. This is the point where demand meets supply and housing prices and rent levels are set. The rent level is also affected by the presence of rent controls and the share of social and public housing. When it comes to owned housing, the demand is also affected by the interest rate level and the volume of credits that

commercial banks issue. In turn, commercial banks' interest rates respond to the policy rate by the central bank (monetary policy). The policy rate is set to respond to the level of inflation, which in turn is affected by the consumption level. The consumption level is, as mentioned before, affected by the purchasing power among different parts of the population and, ultimately, the income distribution. Lastly, housing prices also affect income and wealth distribution.

In the following sections I will explain the different parts of this illustration more closely. Before doing so, it ought to be mentioned that capital is not only a process of circulation. It is also a social relation. To interpret capital as a social relation is to acknowledge that capital affects how humans relate to each other. Notably, capital is a tool for exercising power. Housing is part of reproducing and reinforcing this social relation. Poor location of housing can entail longer and more expensive commuting, lower access to good schools and increased exposure to crimes and environmental pollution (Aalbers and Christophers 2014 p. 380). Adkins et al (2021) even argue that wage-based taxonomies of class are no longer adequate for understanding the kind of stratification that takes place via property gains. This is supported by the fact that residential property prices have accrued far more income than average wages all over the world in the beginning of the 21st century.

Capital as ideology is centered on private property, the primacy of markets and competition and the imperative of the accumulation of private wealth. Housing symbolizes and reinforces this ideology. Homeownership has increasingly been privileged all over the world in the last decades, both ideologically and economically. For instance, several countries have introduced preferential tax treatments such as mortgage interest tax deductions. Simultaneously, other tenure types have been squeezed (Kemeny 1981; Christophers 2013). In the following I'll demonstrate how law is enabling and enhancing this process.

Demand, purchasing power and inequality

To understand how economic inequality can affect the dynamics of the housing market it is helpful to reconsider the idea of supply and demand as the decisive parameters of housing price formation. Demand is not the same thing as purchasing power. It is possible to want or need something, even without the means to pay for it. It is therefore a mistake to believe that there is no demand (need) just because there is no purchasing power. Yet, in the supply and demand model, a lack of purchasing power is interpreted as a lack of demand. The issue of purchasing power is therefore overlooked when the supply and demand model is used to explain the development of housing prices and rent levels (compare Ytrehus, 2000). Conversely, rising income can create a demand for things not "needed", or at least not previously desired. This is why increased economic inequality can create and increase the demand for housing as

investment objects, transforming housing from consumption assets to investment assets.

Individual purchasing power is contingent upon the distribution of income and wealth. When purchasing power is overlooked, so too is income and wealth distribution. Thus, the issue of economic inequality is also overlooked when the supply and demand model is being used to explain the development of housing prices and rent levels.

Rising income and wealth inequality increases the differences in purchasing power of different households. Hence, growing inequalities increase the disparities in how much different households can spend on housing. In other words: the differences in housing affordability increase. This is the case even if owned housing is typically financed through credit since higher income and wealth usually increase a borrower's credit space.

Increased inequality doesn't necessarily reduce income and wealth for the worse off. When the economy grows, real income could rise for all income groups in a society even if inequality increases. Relatively speaking though, higher-income earners gain more than lower-income earners do when inequality rises. In other words, lower income-earners lose purchasing power in comparison to those who are better off.

As can be seen in the illustration, figure 6 above, the distribution of income and wealthdetermined by several factors, most notably the distribution of income between labor and capital, social transfers and taxation. The distribution of income and wealth is therefore determined by the interplay between labor law, social welfare law, inheritance law and tax law. Previous research has shown how structural changes to the labor market, such as a growing share of precarious employment, make the housing market less accessible for lower income groups (Arundel, R. and Lennartz, C. (2020).

Having established the basic connections between demand, purchasing power and inequality, the next question is how inequality affects house prices and rent levels. This is the subject for the following two sections. Owned housing will be discussed in section 7 and rentals in section 8.

Inequality and housing prices

Different income groups have different consumption and saving patterns. Higher-income earners are able to save and invest a larger part of their income than lower-income earners. Many lower-income earners are not able to save anything at all. Therefore, higher-income earners have a lower so-called marginal propensity to consume than lower-income earners do. In other words, higher-income earners consume a smaller part of their income than do lower-income earners. Instead, higher-income earners have a higher marginal propensity to save (a higher saving ratio). Individuals in the bottom quintile consume all their income while individuals in the top quintile save more than 25 % of it (Dynan et al 2004; Carroll et al 2017). The distribution of income and

wealth is therefore likely to affect aggregate demand for consumption and saving in a society. What aggregate demand looks like in a society is therefore contingent upon the purchasing power of different income groups, i.e. the level of economic inequality. This is displayed in the center and righthand side of figure 6.

Goda et al. (2020) demonstrate that there is a correlation between increasing economic inequality and increasing house prices in 15 OECD countries between 1975-2010. There are two theoretical explanations for why increasing inequality drives up house prices. The first theory suggests that rising inequality, characterized by increasing wealth and incomes in top deciles, leads to a larger number of households that are willing to pay a higher price for properties (Gyourko et al 2013; Määttänen and Terviö 2014). The second theory is that housing turns into an investment object for higher socio-economic groups and that investment demand is higher within these groups. This is because increased purchasing power not only enables the demand to be realized, but also affects and creates demand. Increased purchasing power for higher-income earners increases their demand for investments. Increased investment demand has the potential to transform housing objects into investment objects (Nakajima 2005; Zhang 2016). The two theories are not mutually exclusive.

The connection between inequality and housing prices is confirmed in a study by Matlack and Vigdor (2008). They claim that "'in markets with low - vacancy rates, increases in income at the high end of the distribution are associated with significantly higher rents per room and greater crowding among households headed by a high school dropout." Similarly, Leishman and Rowly (2012) suggest, based on a review of previous research, that rising income inequality may pull up rents or house prices as a whole. Therefore, policy initiatives that interpret housing affordability as a problem of housing shortage may target its symptom rather than its cause. According to Leishman and Rowly, it is also worth considering whether the rising income inequality is a result of the poorest being left behind or the richest pulling away. The former situation ought to require strengthened social transfers while the latter ought to require strengthened tax progressivity. In a study of 28 countries, Dewilde and Lancee (2013) conclude that higher income inequality increases the likelihood of crowding and affordability problems as well as lower housing quality for low-income earners.

According to some economic theories, the higher savings ratio for higher-income earners and the importance of investments for growth mean that increased inequality is beneficial for growth (e.g., Kaldor 1955; Bourguignon 1981). However, capital is going to be channeled to the sectors of the economy where the rate of return is the highest. Since the marginal propensity to consume is higher for lower-income earners, increased inequality reduces the relative purchasing power of those parts of the population that consume the largest parts of their income. In this way, increased economic inequality hampers

aggregate demand for consumption in a society (Stiglitz 2012, pp. 106-108). When aggregate demand for consumption is held back, the return on investments in the productive sector is likely to be lower. The incentives to invest in the productive sector is then likely to decline in favor of investments in the financial market and the real estate market. In other words: if the rate of return is higher for houses than other investment options, capital is going to be channeled to the housing market. The result is escalating housing prices because of increased demand. Rising housing costs can also curtail the benefits of income growth. An Australian study shows how rising housing costs have disproportionately curtailed real gains from income growth for lower-income households (Wiesel et al 2021).

The transformation of housing into investment objects is analyzed thoroughly in the financialization literature, which attempts to explain the move from industrial capitalism focused upon commodity production to financial capitalism focused upon the return on investments and financial transactions. The term "financialization" usually refers to the "increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states and households" (Aalbers 2015, p. 3). Financialization is related to housing in two ways. First, it results in the increased role of mortgage lending for house ownership (or investment). Rather than improving the access to homeownership, broader access to credit and mortgage loans primarily led to higher house prices and greater insecurity, as displayed by the financial crisis of 2008 (Aalbers 2008 pp. 160-161). Second, the increased mobility of global capital and institutional investors' demand for return in times of low interest rates flooded real estate markets in large metropolitan areas with "cheap money". Both developments caused house prices to increase considerably faster than household income, leading up to a global urban housing affordability crisis (Wetzstein 2017).

The economic paradigm shift that enabled this development occurred in the 1970ies and 1980ies and is generally called the neoliberal turn. It involves the dismantling of central institutional components of the welfare state. Concerning housing, the reforms dismantled social and public housing, destabilized the security of tenure and transformed the home into a financial asset. The neoliberal reform process varied from country to country due to different socio-political power constellations, as well as different institutional and spatial configurations (Rolnik 2019).

The neoliberal policy changes were not just about promoting homeownership, but also about promoting housing wealth as an essential cog in the whole economy. To understand how this happened it's essential to start with the changing labor policies of the neoliberal movement. In response to the oil crises and economic shocks of the 70s, structural reforms were made all over the world to appease unions and slow down wage development (Adkins et al

2021). This led to declining worldwide wage growth and, in some countries, wage stagnation (Palley 2012; Adkins et al 2021). The globalization of labor markets turned wage suppression into a tool for gaining competitive advantages. Wage suppression makes production cheaper and supports the local export industry. This is not only the result of increased global mobility, but also of countries turning from fixed to flexible exchange rates. When nation states operated with fixed exchange rates it was possible for a government to make a downward adjustment of its exchange rate (an external devaluation). A lower exchange rate means that it becomes cheaper for the country to sell products abroad. In this way, a lower exchange rate will boost the domestic export industry. Fixed exchange rates were a key component in the so-called Bretton Woods system, but in the 70s and 80s, nation states turned to flexible exchange rates. The change put a stop to external devaluations but opened the door for so-called internal devaluations. An internal devaluation occurs when wage growth decreases and it becomes cheaper to export products abroad.

A clear example of an internal devaluation is the Hartz reform in Germany in early 2000s. Some key elements in the reform involved (Engblom et al 2015):

- Drastic cuts in the size and duration of unemployment benefits;
- Tightening of the conditions for unemployment benefits (tighter rules for job search and acceptance);
- Deregulation of temporary work to give employers more leeway to adapt the employment level without incurring hiring or firing costs;
- Reorganization of the federal labor agency to improve training and matching efficiency of job searchers.

Germany was the only European country where real wages per employee fell on average in the period from 2001 to 2009. Reduced wages meant that a large cost component in the productive sector was reduced, making it cheaper to export products abroad (Lehndorff 2016, pp. 170-171). The European Commission estimated that the internal devaluation of the German economy since 2000 was about 30 %, as compared to other euro-zone economies (European Commission 2010).

It is not only governments that are incentivized to keep wage growth low to increase their international competitiveness. Unions also have incentives to do so if it strengthens the export industry and helps to protect jobs. In this sense, employers and unions may share a material interest to keep wage increases below those in competitor countries (Lehndorff 2016, p. 170). The way in which global competition affects national labor law shows that law is not only affecting material forces, but that material forces are also affecting law. When wage growth decreased, the problem was how to assure effective demand in the economy. Anglo-American economies turned to housing as the solution. Policies were enacted to promote homeownership and house price appreciation. Demand was going to be promoted by increasing housing wealth. The measures enacted to accomplish this included the liberalization of consumer credit

regulation and securitization of mortgages. Homeownership was also supported indirectly, by reducing the stock of public housing (Adkins et al 2021) and deregulating the rental market, leading to an increase in evictions (Rolnik 2013, pp. 1061-1062). Wage suppression and fiscal austerity meant that the former promise of expanding wages was replaced by a promise of workers' share in housing wealth appreciation (Adkins et al 2021). To promote aggregate demand by deregulating the credit market and promoting homeownership means that demand was increasingly based upon private borrowing. This way of structuring the economy entails increased private indebtedness as a necessary feature (Crouch 2011; Watson 2010). As Rolnik expresses it: "homeownership, because of its capacity to feed growth via credit, was also responsible for propelling the rise in household consumption in a context of wage reduction and limited employment growth" (Rolnik 2019 p 17).

It is not only the case that rising economic inequality affects housing prices. As figure 6 shows, housing prices, in turn, affect the distribution of income and wealth. Previous research has shown that the distribution of capital is considerably more unequal than the distribution of labor income all over the world. In most countries, about half of the total wealth consists of financial instruments and the other half of housing and real estates (Piketty 2017, pp. 321-326, 424-475). According to a study of 27 OECD countries, the level of income and wealth among rental households is significantly lower than the population average. This shows the importance of owned housing for household wealth and the importance of income to service mortgage debt and save for a down payment. A disproportionately large share of all housing wealth is owned by the wealthiest households (OECD 2022 section 2.2-2.3).

Housing is indeed more equally distributed than financial assets. This suggests that increased homeownership rates could equalize the distribution of wealth (Causa et al 2019). Yet, high-wealth households are likely to derive greater absolute benefit from housing price escalation since they are more likely to own attractive houses in attractive locations. The consequence is increased wealth inequality between households that own their homes and those that don't, as well as between households that can afford to service a mortgage and those that cannot (OECD 2022 section 2.3). According to Wind, Lersch and DeWilde (2017), increasing homeownership rates are generally associated with increasing gaps between those who own their dwellings and those who do not. Yet, this is not always the case. It depends upon the political economy context in which the expansion of homeownership takes place. In regimes with market-based provision of housing, the expansion of homeownership increases housing wealth inequality. Such a pattern is not found in regimes with less market-based provision of housing, i.e., when the state or the family drive homeownership expansion.

It is commonly argued within urban economics and mainstream economics that the housing affordability problem is caused by excessive planning and

regulation of construction (e.g., Ihlanfeldt 2007; Ganong and Shoag 2017; Hsieh and Moretti 2017). Accordingly, most countries have tried to solve the housing affordability crisis by increasing land and housing supply or reducing planning regulation (Barker 2004; Glaeser 2008; Glaeser and Gyourko 2018). Yet, despite these efforts, the global affordability crisis has not been solved. Simply increasing the supply will not lead to lower prices if it is accompanied by an increase in demand (Fingleton 2008).

According to Rodríguez-Pose and Storper (2019), the geography of employment, wages and skills is of far greater importance for housing affordability than planning and construction regulations. According to them, "the affordability crisis within major urban areas is real, but it is due less to the over-regulation of housing markets than to the underlying wage and income inequalities, and to a sharp increase in the value of central locations within metro areas, as employment and amenities concentrate in these places."

Inequality and rents

To understand the role of housing in inequality it's not enough to simply look at ownership. One needs also to look at that other form in which ownership always exists in direct relation to: rentals (Christophers 2019).

Housing prices and rents have a reciprocal relationship. When rents are decided by what is commonly called free market forces, it is likely that income and wealth inequality will be mirrored in the rental market in a similar way as in the housing market. Increased income and wealth inequality is therefore likely to increase the geographical differences in rent levels. The pressure of housing allowances is also likely to increase as it becomes more necessary to alleviate the situation for the worst off.

Rent regulations, subsidized construction of rental apartments, social housing and public housing therefore play a central role for the development of housing inequality. Hence, both property law and social welfare are relevant to the way in which rents are set. This is particularly the case of rent regulations. Their purpose is to make rentals more accessible among all income segments. Rent regulations are criticized for inhibiting housing supply and creating housing shortages that need to be addressed through (growing) housing queues. This increases the risk that landlords attempt to circumvent the rent regulation. Another risk is the emergence of a shadow market where market rents, circumventing rent regulation, prevail. Due to these purported effects, it has been claimed that rent regulations fail to reduce income-based segregation (Glaeser 2003; Hellström and Lind 2006). According to Ernström et al (2014) ethnic and educational segregation is larger in the rental market than the housing market, but income-based segregation is lower. Yet, a deregulated rental market is only able to increase the housing supply as long as it's profitable to do so. If the current rent level in an economy with rent controls does not provide enough incentives to increase the housing supply, it's quite clear that a

deregulated housing market won't be able to meet the needs of the worst off. A deregulated rental market is likely to dramatically increase the demand for public housing allowances, putting increased pressure on public expenditures. The negative effects of rent controls on housing supply could be offset by government subsidies that stimulate housing construction and increase the housing supply.

The prevalence of housing inequality on the rental market can also be counteracted by social and public housing. Public housing is a cheaper form of housing provided by government bodies or government companies. Social housing differs from public housing. While social housing is limited to lower-income households, public housing is intended to push down the housing costs across all income segments. However, the scope for public housing can be limited by competition law. In Sweden, for instance, municipal housing corporations are no longer allowed to receive public funding to cover deficits due to an arguable interpretation of EU competition law. This has reduced the influence of public housing (Grander 2018).

It is not only the rent level itself that excludes lower-income earners from (certain parts of) the private rental market. Landlords' rental policies may also require that the tenant has a certain level of income, a certain margin above the rent level. The rental policies could also contain provisions on what counts as income. For instance, it is not always certain that social allowances count as income. In this way, landlords' rental policies can be effective in excluding lower socio-economic groups. The leeway for landlords to decide the rental terms is decided by contract law. Depending on the extent to which contract law permits these kinds of clauses, contract law can either enable or counteract social exclusion on the rental market.

Purchasing power, housing prices and monetary policy

The intent and effects of policy rates

This section returns to owned housing and explores the lower end of figure 6 above: monetary policy and bank lending. The development of housing prices is dependent upon monetary policy. This is the case because interest rates are of key importance for housing market dynamics.

The new monetary orthodoxy that won ground in 1980s and onwards included the feature of independent central banks and inflation targeting as their primary goal (Pixley et al 2013). The degree to which the central bank is independent varies from one country to another (Garcia 2016). The main monetary policy tool is the policy rate. The interest rates offered by commercial banks are heavily influenced by the interest they pay when borrowing from the central bank.

Monetary policy is not only steering capital to the housing market. Bank lending creates money that is poured into the housing market and boosts

housing prices. In other words,commercial banks don't need a prior deposit to be able to lend. From a legal point of view, this is explained by the fact that a bank customer's balance on a bank account is nothing more than a claim on the bank. When the bank issues a loan, it increases the disposable amount on the borrower's bank account. To increase the borrower's bank balance is simply to increase the account holder's claim on the bank. It's similar to a promissory note. Therefore, a bank can increase the amount on a bank account without any prior inflow of cash. They do however need liquidity to enable their account holders to withdraw their money and to transfer it to a bank account in a different bank. This is why banks have to borrow from the central bank or from the private market by issuing bonds. A thorough description of how banks create money via lending is provided by McLeay et al (2014). It should be noted that banks are subjected to certain liquidity and capital requirements, but these requirements will not be analyzed here.[2]

A low-interest rate environment is likely to entail escalating housing prices. Yet, it depends on many other factors. The housing supply is of course essential. However, the slow pace of housing construction means that housing supply is rather inelastic (the supply responds slowly to changes in purchasing power and demand).

As a response to low inflation following the financial crisis of 2008, central banks worldwide cut their policy rates to zero or even below zero. The policy rates remained low for more than a decade (Fischer 2021; OECD 2024g).

When inflation falls below 2%, central banks lower the policy rate. The intention is to get the commercial banks to lower their interest rates. For borrowers with flexible interest rates, the monthly interest costs will reduce. Thus, the borrowers receive greater room for consumption (increased purchasing power). The financial costs are also lowered for companies. This is thought to stimulate business expansion. When credit is cheap, the credit market expands and the amount of money in the economy increases. Due to the combination of these effects, prices are assumed to go up.

In case of high inflation, the central bank raises the interest rate. The purpose is to make it more expensive to consume and more expensive for the business sector to finance its activities. The combination of decreased consumption and increased financial cost for businesses increases the need for layoffs and tightens the labor market. As unions and workers lose bargaining power, wage increases are likely to slow down. In sum, economic activity is cooled off and inflation is assumed to go down.

Yet, inflation responded slowly to the low policy rates after the financial crisis of 2008. The low interest rates did however have a large impact on housing prices. During this period, housing prices increased at a faster pace than average

[2] Basel III: International framework for liquidity risk measurement, standards and monitoring, Basel Committee on Banking Supervision, 2010 and Basel III: A global regulatory framework for more resilient banks and banking systems, Basel Committee on Banking Supervision, 2010, rev June 2011.

incomes in the OECD area. During the Covid-pandemic, housing prices increased dramatically, although there are large differences across countries (OECD 2024a).

Implicit in the idea of outsourcing monetary policy to independent central banks is that high inflation, translated as surging wages and powerful unions, must be suppressed at all costs. Asset price inflation, on the other hand, is not captured by the concept of inflation and thus neglected by the monetary policy measures adopted by central banks (Adkins et al 2021). According to Goodhart (2001), central banks have adopted a strategy of benign neglect when it comes to asset price inflation.

The Federal Reserve uses a Personal Consumption Expenditure Price Index, which includes imputed rental income for owner-occupied housing but not house prices per se (Bureau of Economic Analysis 2023). The ECB uses the Harmonized Index of Consumer Prices, which doesn't include housing prices in any way (Eurostat 2018). Hence, housing prices can inflate without affecting the inflation measurement. To separate housing prices from consumption prices (as the inflation measurement does) not only means that housing price inflation is neglected by monetary policy but also that housing as investment rather than as a home is cemented both ideologically and economically.

The reason for not including housing prices in the inflation measurement is that the inflation measurement is supposed to measure consumption. Housing is not considered a consumption good, but an asset. If private loans are taken for home purchases rather than for consumption, the policy rates of central banks will primarily affect house prices rather than consumption prices (inflation). This could partly explain why housing prices escalated while inflation was low in the decade following the financial crisis of 2008, despite very low interest rates. The low inflation rate is also explained by slow wage growth following the neoliberal turn. Another factor relevant for domestic inflation is the monetary policy of other countries. If the central bank of a foreign state lowers the policy rate, the government bonds of that country will yield a lower rate of return (a lower interest rate). It will become less interesting for investors to invest in those bonds. Hence, the currency of that country will drop as investors look for other government bonds to invest in. If those other countries do not follow and lower their policy rates as well, their currencies will appreciate. This will make it cheaper in those other countries to import goods from abroad. Lower import costs will push down consumption prices and domestic inflation further. Hence, these other countries will have to keep up. When exporting countries lower their policy rates, the importing countries must follow in order to avoid even lower inflation. In the decade following the financial crisis of 2008, the central banks of different jurisdictions pushed each other in this way to successively lower their policy rates.

When interest rates are raised, housing prices are likely to drop. Yet, the effect doesn't necessarily come immediately. It depends on the share of

outstanding fixed-rate mortgages. Raised interest rates could also reduce the number of houses for sale as sellers become more cautious. A reduced supply counteracts a sharp price fall. It may also be the case that mortgagors are keener to negotiate interest rates with the banks as interest rates go up. This is likely to slow down the impact of a raised policy rate. Therefore, it takes some time before rising interest rates have full effect on housing prices (Ross 2022).

Furthermore, a sharp drop in housing prices is also problematic as it tends to have severe consequences for the whole economy (Cournéde, B. et al 2019). It is not even certain that a sharp drop would ease the accessibility to the housing market for lower- and middle-income earners. It depends on how much house prices fall in relation to how wages and interest rates develop. If inflation is imported from abroad or driven by supply constraints rather than wages, as has been the case in many countries in 2022, it may be even harder for lower-income earners to enter the housing market as the recurring living costs and interest payments are rising. Then it may not help that housing prices are falling.

Asset purchases

The policy rate is not the only monetary policy tool that affects housing prices. Housing prices are also affected by central banks' asset purchases. As will be explained below, central banks have bought large amounts of bonds issued by commercial banks. By doing so, the financial costs of commercial banks were reduced, resulting in lower interest rates on private mortgages and rising housing prices. It creates an injection of money into the housing market.

As early as 2009, the European Central Bank (ECB) started to purchase covered bonds. Covered bonds are issued by commercial banks. As an alternative to borrowing from the central bank, commercial banks can borrow from the private market by issuing covered bonds. A covered bond is a claim on the bank and can be traded on a market. The bank's housing loans are used as a collateral for the bond. Covered bonds are regulated in Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities and Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.

The ECB has launched several asset purchase programs. The first three Covered Bond Purchase Programs (CBPP I-III) ran from 2009-2010, from 2011-2012 and from 2014-2022. Covered bonds were bought for EUR 356 billion during these programs.[3] Covered bonds were also a small part of the more

[3] Decision of the European Central Bank of 2 July 2009 on the implementation of the covered bond purchase program, ECB/2009/16 and decision of the European Central Bank of 3 November 2011 on the implementation of the second covered bond purchase program, ECB/2011/17.

extensive Asset Purchase Program (APP) with a total amount of EUR 3 265 billion (Kunze et al 2022).

The largest purchases were made during the Corona-pandemic.[4] The purpose was to enhance the transmission of monetary policy, facilitate the provision of credit to the euro area economy, ease borrowing conditions for households and firms, and support the sustained convergence of inflation rates to levels below, but close to 2 %.[5]

The Federal Reserve began to buy mortgage securities (agency mortgage-backed securities) already in 2009, as a response to the financial crisis. During this purchase program, mortgage securities were purchased for $ 1,25 trillion (Federal Reserve Bank of New York 2010). The purpose was to ease the accessibility to credit and support the housing market. A new purchase program was initiated when the pandemic struck. Initially, the program amounted to $ 200 billion (Board of Governors of the Federal Reserve System 2010 and Board of Governors of the Federal Reserve System 2020a).

The cap was subsequently lifted as the trading desk was instructed to purchase securities in the amounts needed "to support smooth market function and effective transmission of monetary policy to broader financial conditions." (Board of Governors of the Federal Reserve System 2020b).

When the pandemic struck and economies around the world were shut down, there was a widespread concern that unemployment would rise, that people would sell their homes and that housing prices would fall sharply. Consequently, investors were reluctant to invest in mortgage bonds. To be able to issue these bonds, banks would have to pay a higher interest rate on them. In the long run, this would've pushed up the interest rate on private mortgages as well (Gustafsson and von Brömsen 2020, pp. 53-54). Central banks initiated their purchases to prop up and stabilize the market for mortgage bonds. By doing so, central banks sent a signal to investors that their investments in these assets would be safe. Hence, the incentives to invest in this market increased and the interest rates on these bonds dropped. In turn, interest rates on private mortgages were also pushed down.

Several central banks argue that the escalation of housing prices during the pandemic was mainly due to changes in consumption and saving behaviors. As households were in lockdown, they were forced to save a larger part of their income and housing investments became an attractive option (Anenberg and Ringo 2021; Fazio and Harper 2022). Yet, the escalation of housing prices was undoubtedly also aided by monetary policy pushing down mortgage interest rates. It can be argued that it was particularly sensitive of central banks to do so

[4] Decision (EU) 2020/440 of the European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase program, ECB/2020/17.
[5] Decision (EU) 2020/187 of the European Central Bank of 3 February, 2020, on the implementation of the third covered bond purchase program, ECB/2020/7, para. 2 in the preamble.

at a moment when households didn't have as many spending options as they usually do.

Numerous research contributions have convincingly shown that monetary policy has a significant impact on housing prices and housing affordability (Kholodilin et al 2007; Goodhart and Hofmann 2008; Calza et al 2009; Adams and Füss 2010; Mian and Sufi 2011; Hirata et al 2013; Jordá 2015; Geng 2018; Ryan-Collins 2019; Wilhelmsson 2020; Shida 2021; Yiu 2021; Yiu 2023). Even so, there are good reasons not to use monetary policy for purposes of regulating housing affordability. While decreasing interest rates are likely to effectively push house prices up, rising interest rates may not be as effective in pushing house prices down. As interest rates are rising and potential homebuyers become more cautious it is likely that current homeowners also become more cautious to sell. A smaller supply of houses for sale will hamper the downturn or even maintain the current price level. Whether housing affordability is improved or not depends upon how big the downturn in housing prices is and how much interest rates increase. As loans become more expensive, housing may become even more unaffordable than before (Yiu 2023). A rapid downturn in housing prices (a crash) could also entail severe consequences for the whole economy. This is the case because owned housing plays such a crucial role for effective demand in society, as explained above (Watson 2010; Crouch 2011).

The unconventional monetary policy tools (asset purchases) deployed after the financial crisis of 2008 have shown to have significant long-lasting effect on wealth inequality, at least in the UK (Evgenidis and Fasianos 2019). Similarly, August et al (2023) found the quantitative easing program in Canada to increase investments in residential and multi-family housing to the detriment of marginalized populations.

Private indebtedness, financial instability and credit regulations

As explained above, the neoliberal economic reforms replaced rapid wage growth with house price appreciation as an important driver of aggregate demand in the economy. When wages and inflation flattened, investors no longer demanded inflation premiums (which previously pushed up interest rates). This led to a low-interest rate environment, excessive mortgage lending and a sharp rise in household debt. Borrowing into asset ownership was a way for workers to compensate for stagnant wages. The development was aided by housing credit liberalizations, which allowed brokers to issue high-risk mortgages without prior funding. Another fundamental piece of the puzzle was tax incentives to promote homeownership, which will be discussed in the next section (Adkins et al 2021, pp. 556-558).

In the EU, the liberalization of the consumer credit market involved abolishment of interest rate ceilings, relaxed credit controls and an end to restrictions on entry into mortgage markets (Rolnik 2013 p. 1062).

Some argue that the housing affordability crisis can be solved by increased access to mortgages, particularly among younger households (Causa et al 2020; Raisner and Bracken 2022). Andrews and Sánchez (2011) have found that relaxation of down payment rules and tax reliefs on mortgage debt financing have increased homeownership rates. Similarly, Tracey and van Horen 2023 claim that mortgage market interventions, such as the Help-To-Buy in UK, can help reduce wealth inequality. According to Januário and Cruz (2023), however, more relaxed mortgage policies, such as a lower interest rates, increase housing prices even further and exacerbate the affordability crisis.

The build-up of private indebtedness reveals an internal contradiction of the neoliberal economic order. High levels of private indebtedness can create risks in the financial sector (as the financial crisis of 2008 displayed). An environment with high indebtedness can be sensitive to interest increases. If inflation rises, the central bank is assumed to raise the policy rate. However, the central bank must be cautious not to cause the housing market to collapse by raising the policy rate too much. A crash on the housing market could entail a crash on the financial market. In a worst-case scenario, the central bank may have to choose between an inflation crisis and a financial crisis. The risk of a crash on the housing market is likely to be higher when inflation is not driven by wages, but by supply constraints (as was the case of the inflation crisis starting in 2022). Many governments have responded to the problem of high private indebtedness by restricting the accessibility to credit for lower-income groups. As will be explained below, such rules exclude lower-income groups from large parts of the housing market. Yet, relaxing the accessibility to credit may also contribute to social exclusion by entailing even higher housing prices. The relationship between credit regulations and housing inequality is complex and will be explained in this section. Before doing that, however, the global development of private indebtedness will be elaborated.

The level of private indebtedness can be measured in various ways. One way is to measure aggregate national household debt to national GDP. The following graph shows the development of national household debt to national GDP for a selection of countries (IMF 2023).

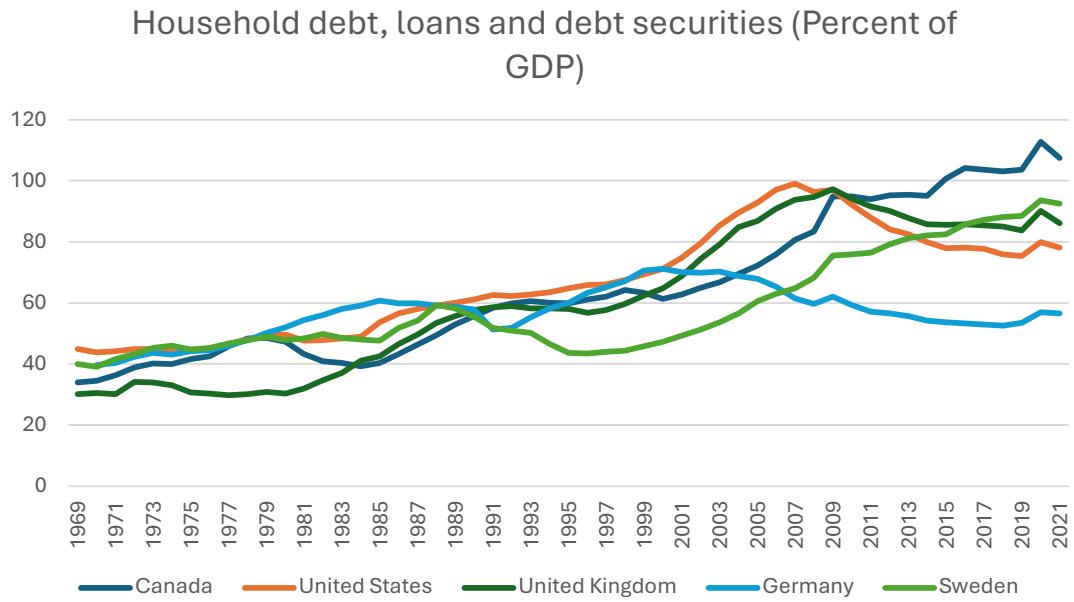

Figure 7: Aggregate national household debt as a percentage of national GDP, 1969-2021

It is also possible to measure the debt-to-income ratio. The debt-to-income ratio measures the ratio of the households' debts to the households' disposable income. This is shown in the following graph (OECD 2023):

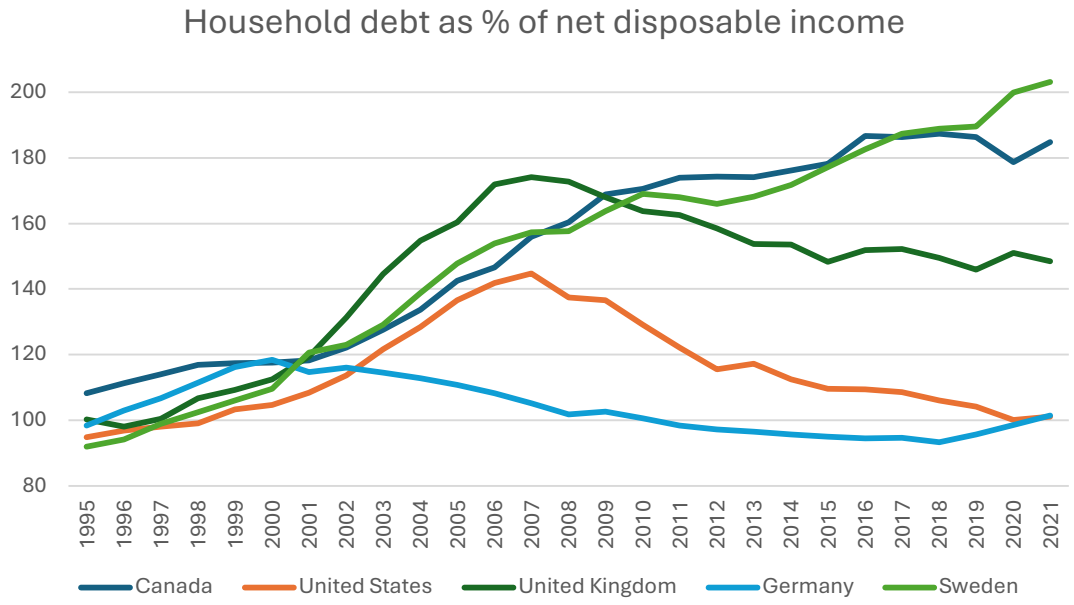

Figure 8: Household debt as a percentage of household disposable income, 1995-2021.

In Germany, the debt-to-income ratio has been relatively stable during the period 1995-2021. As a share of GDP, private indebtedness has increased

marginally. In the USA and UK, private indebtedness increased sharply in the beginning of the 21st century. After the financial crises, private indebtedness returned to late 20th century levels. For Canada and Sweden, private indebtedness has continued to grow.

The debt-to-income ratio is likely to be even higher for first-time buyers. In Sweden for instance, the debt-to-income ratio for new mortgagors in 2021 was 327 % of the households' gross income and 440 % of their net income (Finansinspektionen 2022).

It ought to be emphasized that a rising debt-to-income ratio doesn't necessarily mean that average recurring housing costs increase. It depends upon the relationship between debt growth and interest rate changes. If interest rates are cut by half, the average recurring interest costs will decline unless housing prices double. However, rising private indebtedness does make mortgagors more susceptible to future rent increases. Hence, the housing market and the financial market become more vulnerable and exposed.

It is important to keep in mind that the interest burden varies considerably among mortgagors. New mortgagors don't benefit as much from interest cuts as older mortgagors do. This is the case because new mortgagors will be more indebted when they enter the housing market. Even if interest rates are low, new mortgagors will have a higher debt to pay interest on. It is difficult to get reliable statistics on the differences in interest-to-income ratio between new and old mortgagors since there will be no data for those who can't get a loan due to their income and wealth levels.

To counteract the risks of high levels of private indebtedness, credit restriction rules can be enacted to restrict the accessibility to credit. These rules act as a doorkeeper to the credit market, and consequently to owned housing.

One example is the mortgage ceiling, according to which the borrower is allowed to use only some part of the property as collateral. This does not mean that the borrower is not allowed to borrow 100% of the property value from the bank, but if the ceiling is 85% the remaining 15% will have to be a loan without security (and at a substantially higher interest rate). A second example is amortization requirements. These rules could demand the borrowers to repay their loans in a certain amount of time. A third example concerns the credit trustworthiness. Regulations could require certain income levels to be granted a loan. For instance, the rules could require that the borrower has a high enough income to be able to pay amortization, interest rate plus an estimated increase by certain percentage points, estimated maintenance cost and estimated costs for a reasonable living standard.

It is important to keep in mind that credit restriction rules aim to protect the housing market and the financial economy. This is done by limiting the availability of credit for people who may have difficulty repaying it. This protects the housing market as mortgages will not be provided to people who run the risk of defaulting (thus jeopardizing the housing market). The rules do not offer a

solution to growing housing inequality. On the contrary, credit restriction rules limit the access to the housing market for low-income households. The consequence is that low-income households become increasingly dependent on unsecured loans with significantly higher interest rates. In some cases, the rules can even set a definitive block for lower-income households to enter the housing market. In this way, the rules contribute to social exclusion. A similar observation is made by Haffner and Hulse (2021 p. 66) regarding the credit restriction responses to the financial crisis of 2008:

> The effects of the crisis were to tighten criteria for access to housing finance to households and investors, for example, through lower loan to valuation ratios and requirements for extra documentation. In theory, this makes it harder for marginal and younger borrowers to take out housing loans although falling interest rates following the GFC have softened this effect somewhat.

It is tempting to hypothesize that credit restriction rules may create problems in the long run for monetary policy to fulfil its purpose, which is to maintain low and stable inflation. As mentioned before, housing currently plays an important role for aggregate demand in society. Yet, credit restriction rules mean that fewer will be allowed to take on credit. To boost inflation in a low-inflation environment, the central bank may have to lower the policy rate even further to compensate for the loss of demand created by the credit restriction rules. Housing prices are likely to inflate and, since the credit restriction rules exclude lower-income households from the housing market, the benefits of escalating housing prices will probably accrue to wealthier households. Assuming that wealthier households have a higher savings ratio (as explained above), the policy rate is likely to increasingly affect savings rather than consumption. If this is the case, monetary policy will gradually become less effective at fulfilling its purpose of regulating inflation, while wealth inequality increases, and housing affordability decreases for lower- and middle-income households. This is obviously just a hypothesis that needs to be explored further.

The examples of credit restriction rules mentioned above all restrict access to credit. Public policies can also be enacted that ease access to credit, such as subsidized government loans for first-time buyers. However, these initiatives can also be problematic for housing inequality. If the housing supply is not elastic enough, increased pressure is put on the housing market and housing prices are likely to rise further. Hence, increased credit accessibility could exacerbate the housing affordability crisis.

Taxation and housing prices

This section explains the top left corner of figure 6: the relationship between taxation and housing prices. Housing taxation could be a counterforce to

escalating housing prices. Yet, the tax system could also be designed in a way that boosts housing prices.

Several governments have tried to increase the accessibility to the housing market for lower-income households by decreasing housing taxation. However, if the housing supply is not elastic enough, additional pressure is put on the housing market and housing prices are likely to increase as an effect of lower housing taxation. Recurring housing costs can even increase due to increased interest costs. In that case, the tax incentives have the opposite effect. For a buyer, the essential difference of lowering the taxation is to whom the recurring costs of housing are paid, whether it is interest paid to the bank or if it is taxes paid to the state.

The most common tax incentive to increase home ownership in the OECD is mortgage interest deductions (OECD 2021). Yet, previous research has shown that interest deductions are ineffective in increasing homeownership (Glaeser and Shapiro 2003; Caldera Sánchez and Andrews 2011; Hilber and Turner 2014; Gruber et al 2021). Instead, they increase housing prices (Berger et al 2010; Harris 2010; Bourassa et al 2013; Hilber and Turner 2014; Sommer and Sullivan 2018; Davis 2019; Sommer 2019; Gruber et al 2021) and private indebtedness (Dunsky and Follain 2000). Additionally, interest deductions mainly benefit high income- and high wealth households. Hence, they have regressive effects (Carasso et al 2005; Gale et al 2007; Matsaganis and Flevotomou 2007; Fatica 2015; Fatica and Prammer 2017; Sommer and Sullivan 2018).

Many countries also exempt owned housing from capital gains tax, especially the primary residence, from capital gains taxation. Capital gains taxes are levied when a property is sold with a profit. It is commonly argued that the capital gains tax makes homeowners hesitant to sell their homes, hence reducing the mobility on the housing market. Abolishing it does however make housing a more attractive investment object (OECD 2022).

For similar reasons, lowering recurrent property taxation is also likely to increase housing prices. In Sweden, a nominal cap was introduced in the recurrent property tax in 2008. The cap sets a limit for how much tax any property owner is liable to pay. The same amount of tax is paid by all property owners who reach the cap. The cap is relatively low and most properties exceed it by far. Because of the cap the real estate tax is regressive; the higher the property value, the less is paid as a percentage of the property value. This is combined with full deductibility for all interest costs on private loans (Eklund 2020). These tax incentives provide strong economic incentives to invest in houses, thus channeling capital to the housing market and causing housing prices to rise.

An alternative to recurrent property taxation is to tax imputed income from owned housing. The purpose is to equalize the tax treatment of owned housing and rentals. For a landlord, rental income is usually subject to tax. Hence, owned housing is favored by the tax system if there is no taxation of imputed income

(rent not paid by the owner occupant) or a recurrent property taxation (Bengtsson and Kopsch 2019). When the tax system favors owned housing over rentals, it creates incentives for choosing owned housing. In this way, the tax system can contribute to increased housing inequality.

Immovable property is generally exempted from VAT. For example, this is the case under VAT in the EU.[6] Real estate is typically subjected to transfer taxes, and this has been a reason not to subject transfers of real estate to VAT as well. Another motive for excluding it from value added taxation has been that land does not constitute value added. A third reason has been to promote home ownership (Poddar 2010).

Adkins et al (2021) have analyzed Australian tax incentives for homeownership. The incentives include exemption for the primary residence from capital gains tax, a cut in half of the capital gains tax for all investments held for at least 12 months and the possibility to offset losses on investments against any other sources of income. Adkins et al. argue that these incentives channeled capital to the housing market and caused housing prices to rise.

When the tax system favors housing over alternative investment options, the role of housing as an investment object is also likely to increase. By benefitting owned housing, the tax system contributes to the exclusion of lower socio-economic groups from the housing market and simultaneously benefit those who get access to it.

Once tax incentives for owned housing have been enacted, they can be difficult to remove. Homeowners are likely to have a common material interest to not have the tax incentives removed. Even if the tax incentives mainly benefit higher-income households, lower-income homebuyers are usually more dependent upon them (OECD 2022). That is the case because they have smaller margins. Schwartz and Seabrooke (2008) show that the kind of housing people occupy affects their political preferences in terms of public spending and taxation. According to Rolnik (2019 p. 17), the hegemony of homeownership created and consolidated a conservative popular base.

If governments suspect that the housing market is overheated, they can also be reluctant to remove tax incentives for fear of triggering a crash on the housing market. This is another example of the way that economic forces affect public policy.

Stuck between ownership and a hard place

A rising house price-to-income ratio is likely to make owned housing less accessible to lower-income households. Additionally, credit restriction rules effectively exclude lower-income households from owned housing. The situation can become precarious if alternatives to owned housing are simultaneously reduced, such as a public housing (as has been the case in many countries in

[6] Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, article 135.1 i-l

recent decades). Paradoxically, lower-income households that can't afford owned housing may have to settle for an even more expensive form of tenure. This can be the case if there are no effective rent controls in place. A heavier tax burden on rentals than on owned housing can also turn rentals into a more expensive form of tenure. Accordingly, housing expenditures usually constitute a higher burden for tenant households than for owner-with mortgages (see above). Housing costs as a share of annual income is also the highest in the bottom quintile of the income distribution (this is also outlined above). Furthermore, high rental costs hamper lower-income household's chances of saving up to a down payment and convert to owned housing. This can create lock in-effects (compare Hulse et al 2010). There are also mechanisms on the rental market than can increase social exclusion even further. This could be the result if local contract law permits landlords to enact housing policies that require the tenant to have a certain income level and/or a certain type of income (usually not social benefits).

Housing inequality is a product of both law and economics. This article shows how the interplay between labor law, credit law, bank law, contract law ,social law, tax law and monetary policy enables and enhances housing inequality. It is tempting to reflect upon regulatory changes to address the issue of housing inequality. Yet, I think a more relevant question is why such changes may be difficult to enact.

The problem, I think, is that house price appreciation plays a vital role in the contemporary neoliberal economic paradigm. A main concern of this paradigm is to keep inflation low and stable, and a core assumption is that inflation is primarily driven be wages. The trick was therefore to put a downward pressure on wage growth. This has been accomplished by such measures as decreasing the power of unions, opening national labor markets to international competition and transferring monetary policy to independent central banks with an inflation target. Slow wage growth does, however, create a problem of low demand. House price appreciation has to some degree replaced wage growth as a driver of aggregate demand. In this way, the economic system is currently reliant upon house price appreciation. It would not be possible in such a system to simply change monetary policy to increase general housing affordability and redistribute housing wealth instead of maintaining low and stable inflation. If housing prices are to plummet, they are likely to bring the whole economy with them.

Tax law could theoretically be used to counteract the negative effects on housing prices caused by monetary policy. Increased and progressive real estate taxation could, for instance, counter the effects of a reduced policy rate. Yet, for reasons mentioned above this avenue can also harm the economy, especially with high levels of private indebtedness. When a large part of the population become highly indebted homeowners, it will also be difficult to gather political support for higher housing taxes. In societies with many indebted homeowners,

housing is more likely to be viewed as an investment object than in societies with a large degree of socially owned rentals, where housing is more likely to be viewed as a social right (Schwartz and Seabrooke 2008). The greater the degree of homeownership, the weaker the welfare state also tends to be (Kemeny 1980; Castles 1998).

Neither is it likely that removed credit restriction rules or government loans for home purchases will make housing more affordable. The housing supply tends to be rather inelastic. The risk is therefore that such measures will push up prices and increase private indebtedness even further. Credit restriction rules serve to protect the financial system against the risks of high levels of private indebtedness. Even though these rules block lower-income households from owned housing and contribute to social exclusion, they appear to be a necessary safeguard against the perils of high private indebtedness.

An option that may seem the most appealing is to support the rental sector, particularly cheap rentals. The measures could include strengthening rent controls, increasing public or social housing and increasing subsidies to housing construction. As pointed out by Christophers (2021), housing policy must treat housing in its totality and not as isolated forms of tenures. The two main tenure forms, rentals and owner occupancy exist in relation to each other. Dynamics on the rental markets shape the dynamics on the market for owned housing and vice versa. This is why increased housing wealth inequality is not simply a result of policies that boost owned housing, but also of policies that denigrate rentals. Christophers (2021) argues in favor of tenure equality as a policy principle. Yet, the denigration of rentals is not only about supporting homeownership as such. Considering the role of housing wealth for creating and maintaining demand in the economy, the denigration of rentals also support the functioning of homeownership as a driver of aggregate demand.

Rather than searching for regulatory changes within the system, there may be reasons to search for contradictions within the system that open the opportunity for change. For example, Christophers (2010) and Harvey (2014) have pointed to the contradiction between housing as use value and as exchange value in a system that constantly promotes the latter. This contradiction is exacerbated when more housing is turned into an investment asset rather than a consumption asset. In this article, some contradictions have been observed. One is the difficulty that a central bank may face after a long period of low inflation, a low policy rate, escalating housing prices and high levels of private indebtedness. If inflation should rise due to supply constraints (caused by for instance geopolitical conflicts or climate change), raising the policy rate could run the risk of causing a collapse on the housing market and the financial market. In that scenario, the central bank may have to choose between an inflation crisis and a financial crisis. This scenario is yet to happen, but the inflation crisis of 2022 showed that it could be an eventuality. Another contradiction pointed out above is the need for stricter credit restriction rules as house prices and private

indebtedness surge. At the same time, stricter credit restriction rules exclude lower-income households (households with the highest consumption ratio) from the credit market. It is worth considering whether this could successively hamper the potential of monetary policy to fulfil its purpose of controlling inflation.

In sum, there are reasons to suspect that housing inequality is a necessary component of the neoliberal economic paradigm. House price appreciation certainly is. And the credit restriction rules, being necessary to safeguard against the risks of high private indebtedness due to escalating housing prices, confirm that not everyone can take part in housing wealth appreciation. To claim that housing inequality is a necessary feature of the neoliberal economic paradigm does not mean that housing inequality is necessary in itself. Housing inequality is necessary in relation to the contemporary neoliberal economic paradigm but contingent in relation to alternative paradigms. This calls for addressing housing inequality in its wider socio-political context, taking into account the aggregate interplay of monetary policy, labor law, social law, tax law, bank law, contract law and credit law. This paper advances the law of housing inequality as an object of study in pursuit of such a holistic approach for future research studies.

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