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Housing Finance Between Social Welfare and Growth Strategies

Alexander Reisenbichler

1. Introduction

Housing and mortgage markets sit at the intersection of growth regimes and the welfare state. These markets are not only important engines for economic growth, but they also increasingly fulfill social functions. In light of decades-long welfare state retrenchment, they help households obtain private social insurance through homeownership, yet also expose them to financial risk and growing levels of mortgage debt. While these broader trends have occurred in most advanced economies, there are significant differences in the interlinkages between housing finance, growth regimes, and the welfare state, as well as how these interlinkages have shaped growth strategies in the housing area.

Scholarship in comparative political economy rarely explores the deeper connections between housing finance, growth regimes, and welfare states. This is surprising given the sheer size of housing finance markets—amounting to US$11 trillion in mortgage debt in the United States and €7.3 trillion in the European Union in 2018 (EMF 2019; HFPC 2019)—linking financial markets to the real economy. Yet, the degree to which housing occupies a central position within growth regimes varies across countries. It is well known that housing and mortgage markets are engines of growth in the US economy, which helped produce a remarkable economic boom in the 1990s and early 2000s that came to a halt with the financial crash of 2008–9 (Schwartz 2009; Mian and Sufi 2014). But such dynamics are less common in other advanced economies. Where rising house prices are pronounced policy goals in the United States and the United Kingdom, partly to boost household wealth in lieu of traditional social programs (Rajan 2010; Crouch 2009; Hay 2009), the opposite is the case in Germany, where recent price increases in property markets have been met with hostility by much of the German electorate (roughly half of whom are renting their homes), the Bundesbank (having repeatedly sounded the alarm about overvalued housing markets that are considered sources of financial instability and asset bubbles), and policy-makers on the left and right. Linking the worlds of growth regimes and social welfare can shed light on these developments.

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When advanced economies transitioned from what Hassel and Palier label the Fordist era to the knowledge economy, they adopted different growth strategies in housing finance. I show that demand-led economies relying on credit and consumption, such as the United States and the United Kingdom, are complementary to "financialized" growth strategies in housing finance. These include tax breaks and public guarantees of private mortgage debt to stimulate demand, credit, and consumption through the housing market. This growth strategy is also in line with the imperatives of an asset-based, privatized welfare state that promotes access to credit in lieu of traditional public welfare programs. In contrast, countries based on price-sensitive exports of manufactured goods, such as Germany, are complementary to conservative housing finance policies that limit housing consumption, domestic demand, and public deficits to secure cost competitiveness (Baccaro and Pontusson 2016, and in this volume). Finally, export-oriented economies specializing in high-tech manufacturing and dynamic services, such as the Nordic economies, might be characterized as intermediate cases, where dynamic housing markets neither reinforce nor contradict their growth regimes. As high-tech firms might be less concerned with securing cost competitiveness or restraining domestic demand, these countries can adopt "financialized" housing policies to boost private wealth and consumption.

To illustrate these arguments, this chapter discusses housing-related growth strategies in the United States and Germany since the 1970s.[1] In the United States, policy-makers adopted "financialized" growth strategies in housing finance—such as fiscal subsidies, off-budget government guarantees, and monetary stimulus—to stimulate housing credit, wealth, and consumption. In contrast, German politicians adopted conservative housing finance structures and structural reforms that scaled down already moderate public support for mortgage debt, such as tax subsidies for homeowners, with the goals of balancing budgets, reviving competitiveness, and reducing market distortions that channel investments away from production.

Growth strategies in housing finance have implications for how to think about inequality and the role of the state in advanced economies. First, while the literature in comparative political economy strongly emphasizes inequalities in wages and employment, such as labor market dualization, the focus on housing finance shifts our attention to equally important forms of inequality based on housing wealth and affordability. The second implication concerns the role of the state in capitalist diversity. Focusing on housing finance reveals that governments are often active drivers of growth in what they deem key sectors of their economies, an idea captured by the notion of growth strategy in this volume.

[1] On the politics of housing finance and the privatization of welfare in Eastern Europe, see Bohle (2014).

Finally, growth strategies are not preordained. Lawmakers can adopt policies that create frictions with growth regimes for ideological reasons or produce policy overshoot with unwanted economic outcomes.

2. Housing Finance and the Welfare State

What is the link between housing finance and the welfare state? Housing finance markets provide households access to mortgage debt, which enables them to accumulate private wealth in the form of homeownership. This allows households to save money they would otherwise spend on rent, sell their homes to cash in for their retirement, or pass property on to future generations—a "piggy bank" to hedge against risk: inflation, unemployment, or sickness (Crouch 2009; Ansell 2014). Households may also borrow money against their homes to pay for health care or their children's education. These privatized welfare functions are all the more important in an age of welfare retrenchment, when asset-based forms of social insurance have gained prominence (Mertens 2017). For these and other reasons, policies that subsidize mortgage debt are part of the so-called privatized welfare state, in which private markets help deliver social welfare with government support (Hacker 2002; Howard 1997). However, these policies also incentivize households to take on mortgage debt, which exposes them to financial risk, including bankruptcy, eviction, and foreclosure (Desmond 2016; Mian and Sufi 2014). In difficult times, homeowners cannot easily liquidate their housing assets—unlike selling stocks—and may be forced to sell their homes well below what they had paid for or pay underwater mortgages worth more than their homes.

Prior to the financial crisis of 2008–9, housing was not a priority in political science and welfare state research. Scholarship long prioritized other areas of social policy, such as pensions, employment, health care, or education. To the extent that scholars did focus on housing, they often analyzed public housing as a particularly vulnerable element of the welfare state, given the politically weak constituencies that benefit from it (Pierson 1994). One exception is the scholarship on the trade-off between homeownership and the welfare state. Figure 10.1 shows the variation in homeownership rates across a number of advanced economies, with the lowest rates found in Germany and Austria, the highest rates in Southern Europe (e.g., Italy and Spain), and in-between the Anglo-Saxon and Nordic countries. In a seminal study, Kemeny (1981) argued that high rates of homeownership translate into voter preferences for welfare state retrenchment, owing to the burden of ownership costs—i.e., mortgage interest and taxes—which would prevent voters from favoring higher taxes and redistribution. Along those lines, Castles (1998) suggested that high rates of homeownership would result in low voter favorability of generous public pensions, as the imputed income derived

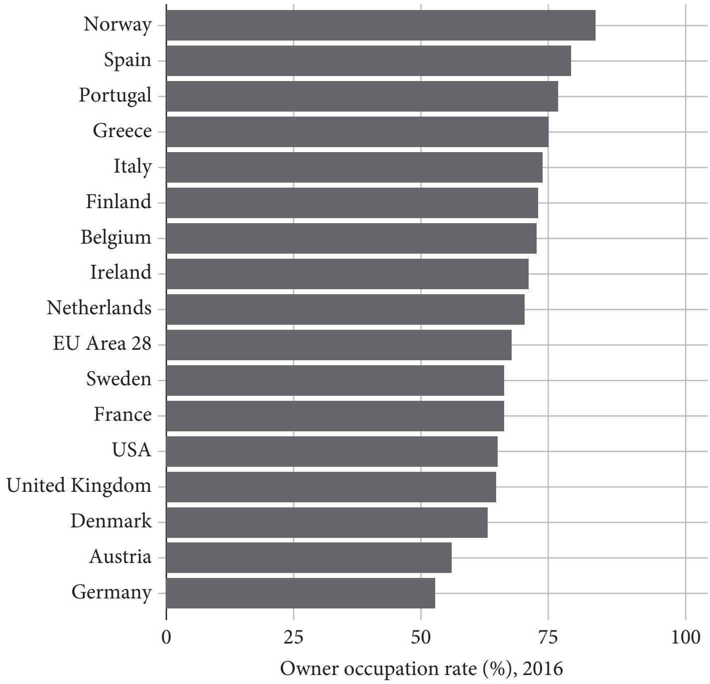

Figure 10.1 Homeownership rates in selected OECD countries in 2016

Note: Homeownership rates defined as distribution of population by tenure status. For the United States, it is the share of households living in owner-occupied homes.

Sources: EMF (2019); US Census Bureau. https://www.census.gov/housing/hvs/files/currenthvspress.pdf (last accessed January 24, 2020).

from homeownership can substitute for pensions.[2] These macro-level relationships between welfare states and housing are instructive, but we still know little about the precise political and historical forces driving these developments.

More recently, scholars advanced upon these insights and diagnosed trade-offs—as well as complementarities—between household debt and the welfare state. Figure 10.2 shows that high levels of mortgage debt, the largest component of household debt, can be found in Denmark, the Netherlands, and the United States, whereas debt levels are much lower in Austria and Germany.[3] Scholars in this camp suggest that, in an era of economic risk and retrenchment, households have taken on increasing levels of private debt, so as to obtain social insurance in private marketplaces (Conley and Gifford 2006; Crouch 2009; Rajan 2010;

[2] Van Gunten and Kohl (2020) updated and replicated these early studies, finding that these trade-offs were indeed present until the 1980s, but seemingly disappeared thereafter.

[3] Kohl (2018a) shows that higher levels of mortgage debt do not necessarily translate into higher rates of homeownership, speculating that low-income households and minorities do not enjoy equal access to credit markets.

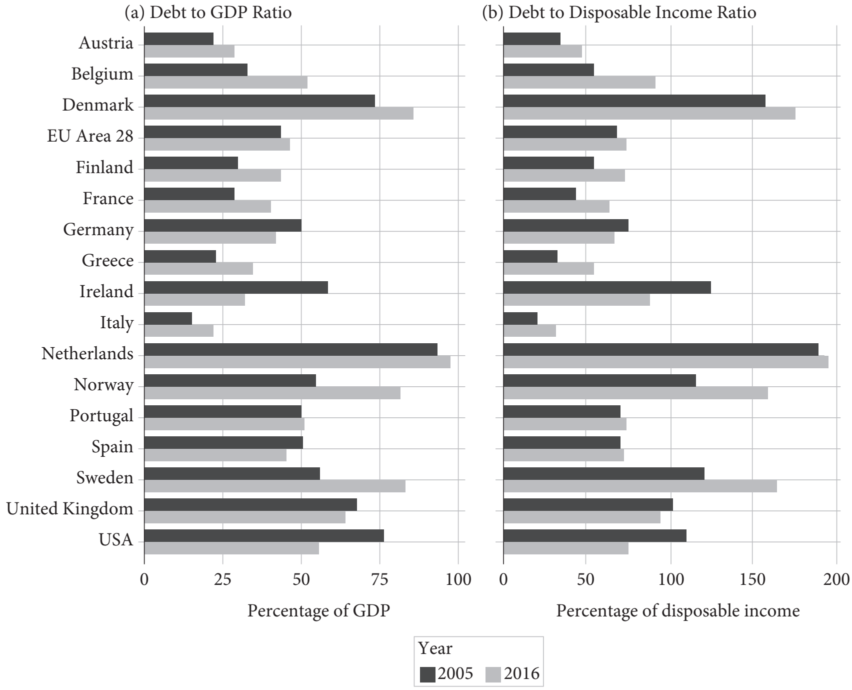

Figure 10.2 Mortgage debt in selected OECD countries in 2005 and 2016
Source: EMF (2017, 2019).

Schelkle 2012; Schwartz 2012; Trumbull 2014; Wiedemann forthcoming). Ahlquist and Ansell (2017) argue that this is especially the case in countries with high levels of inequality, which would induce households to increase private debt in order to maintain relative consumption. The Nordic countries, however, present a puzzle in that they have relatively low inequality *and* high mortgage debt (Anderson and Kurzer 2020). Here, Tranøy et al. (2020) suggest that precisely because households can rely on a well-developed social safety net, they are more willing to take on private debt (also see Van Gunten and Kohl 2020). In other words, household debt and strong welfare states might be more complementary than often assumed. Finally, Ansell (2014) shows that house prices affect voter preferences for welfare retrenchment. When voters experience house price appreciations, they are less likely to support redistribution, because they earn imputed income from their homes that can substitute for public social insurance. More generally, this line of scholarship focuses on a long-neglected and fundamental aspect of political economy—how housing and mortgage debt factor into the study of the welfare state, as both dependent and independent variables.

Scholars have also started to identify housing finance as an integral element of the public–private welfare state (Thurston 2018). This body of work demonstrates how certain social policies, such as tax breaks for homeowners, often grow undetected as part of the "hidden" welfare state and mostly benefit middle- and upper-income households (Howard 1997). Yet, others have argued that these policies are more visible than often assumed. Thurston's work convincingly shows that discriminatory US housing credit policies created political conflicts, as they disadvantaged racial minorities and women, who then successfully mobilized to expand the boundaries of these policies and the American public–private welfare state (Thurston 2018; Freund 2007). Some authors have also focused on how public polices mesh with private markets in the housing area (Fligstein and Goldstein 2012; Quinn 2019; Schwartz 2020). In the United States, housing finance policies are not merely subsidies; indeed, they constitute the very nature of US housing capitalism. Studying specific public policies in the housing area—and the political conflicts surrounding them—is a major contribution to our understanding of the public–private welfare state in the United States and beyond.

In sum, these authors successfully call our attention to studying the political causes and consequences of housing markets with respect to the welfare state. Yet, scholarship on the topic tends to overlook both the growth regime dimension within which these developments are taking place as well as the *politics* of credit policy in general and mortgage debt policy in particular.

3. Linking Growth and Welfare: Housing Finance Policy as Growth Strategies

Housing finance markets are important economic sectors in all growth regimes, given the large size of these asset markets as well as their social functions. The financial crisis of 2008–9 painfully demonstrated both points, as the collapsing US housing market almost brought the world economy to a standstill and wiped out the housing wealth of millions of households (McCarty, Poole, and Rosenthal 2013; Mian and Sufi 2014; Schwartz 2009). The reason why housing markets could do so much damage is that they are deeply embedded in domestic and global markets. Domestically, they are linked to important sectors, such as construction, banking, real estate, and retail. Globally, housing is one of the largest asset classes for investors, shaping global capital flows through markets for housing bonds, such as mortgage-backed securities or covered bonds (Ansell et al. 2018; Fuller 2019; Schwartz 2009). However, the extent to which housing is a key *engine* of economic growth differs in demand-led and export-oriented growth regimes, and policy-makers have therefore differed greatly in their desire to stimulate housing markets as growth strategies.

The comparative capitalism literature rarely explores the interlinkages between housing finance and the larger economy. As a result, prominent approaches, such as the varieties of capitalism (Hall and Soskice 2001), do not neatly map onto the world of housing finance. Startlingly, the United States, a quintessential liberal market economy, offers some of the most extensive public support for housing finance among advanced economies, whereas Germany, a coordinated market economy, has supported these markets much less (Reisenbichler 2020a). The work on the varieties of residential capitalism by Schwartz and Seabrooke (2008) provides a pioneering attempt at identifying the complementarities between housing and larger economic models, focusing on how corporatist structures, mortgage debt, and homeownership rates interact.[4] They group together liberal (high homeownership and mortgage debt), corporatist (low homeownership and high mortgage debt), familial (high homeownership and low mortgage debt), and statist (low homeownership and low mortgage debt) housing systems. While illuminating, this line of scholarship does not take into account the *politics* of housing finance policy that might explain this variation, including party and interest group politics or the growth regimes in which housing markets are embedded.[5]

This chapter concurs with the idea of complementarities between housing and the larger economy, but proposes a different way, in line with this volume's theoretical lens on growth regimes (see Chapter 1 in this volume). The central argument is that there is variation in the ways in which housing markets are embedded in growth regimes, and that this variation has political consequences for adopting housing finance policies as growth strategies[6]—that is, fiscal, monetary, and regulatory policy. While housing finance markets are often transmission belts for growth in credit-led, demand-driven growth regimes, they tend to be less central to export-oriented regimes with institutions that restrain consumption, credit, and wages. As a result, countries relying on credit and consumption have often adopted "financialized" housing policies to stimulate domestic demand, whereas countries based on manufacturing and price-sensitive exports have adopted solutions to restrain housing demand. As shown in Chapter 1, as well as in those by Thelen and Wren in this volume, the export-oriented Nordic economies specialized in price-insensitive high-tech exports and services might be characterized as intermediate cases, because financialized housing markets seem to neither reinforce nor contradict the Nordic growth regimes. In sum, the positioning of the housing sector within growth regimes matters for adopting growth strategies in the housing area.

In demand- and credit-led economies, such as the United States and the United Kingdom, housing markets are key engines for economic growth, as they link together households, financial markets, and domestic demand (Schwartz 2009,

[4] For a historical account of how these varieties developed, see Blackwell and Kohl (2018).

[5] On the connection between housing finance and party politics based on party manifesto data, see Kohl (2018b).

[6] For an extended version of this argument, see Reisenbichler (2020a).

2020; Fuller 2019; Hay 2009, 2013; Wood 2018; Oren and Blyth 2019). Owing to at least two channels, housing markets can be transmission belts for generating household consumption (Fuller 2019: ch. 3; Reisenbichler 2020b; Voigtländer 2014). First, the wealth channel posits that increasing house prices and wealth makes households feel richer, increasing their propensity to borrow and consume, such as through home equity withdrawal. Second, the credit channel suggests that rising house prices ease the credit constraints of households, where increasing housing wealth and collateral then drives households to borrow money against their homes to pay for health care and consumer goods or to start small businesses. As the housing sector is interest-rate sensitive—i.e., lowering mortgage rates tends to stimulate housing demand, while increasing rates does the opposite—policy-makers have incentives to lower the cost of mortgage debt, so as to unleash cascade effects of credit and consumption, particularly in contexts of well-developed, liquid housing finance regimes with liberal lending terms, low transaction costs, and various mortgage products (Wiedemann forthcoming; Schwartz and Seabrooke 2008).

To fuel these channels, lawmakers can deploy "financialized" housing policies as growth strategies.[7] The goal of these policies is to lower the cost of mortgage debt in order to stimulate housing demand, mortgage lending, and consumption. First, fiscal policy, such as mortgage tax breaks, lowers the cost of mortgage debt and consequently tends to stimulate housing demand, credit, prices, and consumption in the wider economy (Howard 1997; Schelkle 2012). Second, off-budget policies, such as public underwriting of private debt in the primary and secondary mortgage markets, reduce the risk for private lenders and the cost for borrowers, which then also stimulate mortgage lending, house prices, and domestic consumption (Thurston 2018; Quinn 2019). Finally, US central bankers long considered the housing market an important transmission channel for monetary policy. In its most basic version, the monetary transmission mechanism means that reducing interest rates lowers the cost of mortgages, which results in higher housing demand and house prices, stimulates bank lending, and generates household consumption. Central bankers can also achieve lower mortgage rates by stimulating housing directly through the purchase of mortgage debt and bonds in the open market (Reisenbichler 2020b). All these growth strategies are "privatized" welfare policies, as policy-makers subsidize and stimulate asset and housing markets as a form of private social insurance (Hacker 2002; Crouch 2009; Thurston 2018).

In export-oriented economies based on high-quality, price-sensitive manufacturing, such as Germany, housing is rarely an engine of growth. According to Baccaro and Pontusson (2016: 189–90, and in this volume), German manufacturing exports

[7] Schelkle (2012) calls such policies "market-creating," while Fuller (2015) characterizes them as "credit-encouraging."

are more price-sensitive than exports based on ICT, high-tech products, or services found in the Nordic countries. As a result, the German export-oriented regime prioritizes price stability and restraint in consumption, wages, and credit. These macroeconomic priorities ensure export and cost competitiveness through often-undervalued real exchange rates (Mertens 2015; Höpner 2019). Dynamic housing markets can create frictions with these priorities, as booming housing markets tend to channel investments away from the productive sector and stimulate unwanted domestic demand hurting export competiveness. As Muellbauer (1992: 547–8) notes, "increased housing demand has inflationary consequences," which directly contradicts the German growth regime's mantra of competitive disinflation (Höpner 2019).

Stimulating or financializing housing is therefore rarely a growth strategy in manufacturing-based growth regimes. Instead, the growth strategy is to promote policies that restrain housing markets and domestic demand. First, politicians have an incentive to adopt and retain restrictive mortgage finance systems (e.g., with high down payments) without public underwriting of mortgage debt in the primary and secondary market. This restrictive strategy induces households to save for down payments in a deposit-based mortgage system, coupled with a tightly regulated housing bond market, and discourages the withdrawal of home equity to finance household consumption (Voigtländer 2009; Mertens 2015). Restrictive mortgage systems then inhibit the wealth and credit channels, owing to high down payments and transactions costs, and the absence of equity release schemes (Voigtländer 2014). Second, fiscal subsidies on mortgage debt not only divert investments away from the productive sector but also tend to increase public deficits associated with current account deficits detrimental to exports (Manger and Sattler 2020). Third, German central bankers do not view housing as a core sector to transmit monetary policy, given that lowering interest rates in Germany's restrictive credit regimes does not fuel the wealth and credit channels to the same degree as in the permissive US credit regime (Reisenbichler 2020b). Instead, the uncompromising monetary priority is price and currency stability as well as market discipline to secure export competitiveness. The focus on price stability is reinforced by strong collective bargaining systems that produce wage restraint and thus suppress mortgage demand (Johnston and Regan 2017; Hall and Franzese 1998). Finally, large-scale social housing policies can support these regimes, as they tend to keep down housing costs, ensure adequate housing *supply*, and avoid wage-cost spirals.

Export-oriented economies specialized in less price-sensitive high-technology manufacturing and dynamic services, such as the Nordics (Baccaro and Pontusson 2016: 189–90), might be classified as intermediate cases and merit further investigation. While housing is not the core engine of growth in these economies, dynamic housing markets seem to neither reinforce nor contradict these growth regimes. They have instead shown a relatively high tolerance for expanding domestic demand, potentially owing to the nature of high-technology competition rooted in investment and innovation rather than cost competitiveness and the "balanced" nature of their growth model (Ornston 2018; Baccaro and Pontusson 2016). As a result, policy-makers can adopt "financialized" housing policies that produce sharp increases in house prices and mortgage debt. As Wood (2019: 834) argues in the case of Denmark, the liberalization of housing finance functioned as an expansionary equivalent to the "public Keynesian-style stimulus packages" of earlier decades and as a form of "privatized/house-price Keynesianism." Similarly, Anderson and Kurzer (2020) find that Denmark and Sweden (as well as the Netherlands) adopted policies to stimulate mortgage credit, so as to move away from publicly financed social housing and boost middle-class wealth. These developments tie in with what Ornston (2018) describes as a larger structural economic shift from exporting natural resources and low- and medium-tech manufacturing toward innovative high-tech industries and sophisticated services. Liberalizing financial markets facilitated this shift and accelerated "the redistribution of resources to new, growth-oriented enterprises" (Ornston 2018: 59; see also Chapter 1% by Hassel and Palier in this volume). In the absence of a German-style tradeoff between growing exports or domestic consumption (Baccaro and Pontusson 2016: 189), Nordic policy-makers might face fewer macroeconomic constraints when "financializing" housing markets and be willing to accept rising house prices, mortgage debt, and consumption (Wood 2019).

Finally, there is an important transnational dimension to housing finance markets and growth regimes. As export-oriented regimes tend to produce current account surpluses and demand-led regimes deficits, the excess savings of surplus countries are often channeled into the housing markets of deficit countries, such as through housing bond markets (i.e., for mortgage-backed securities in the United States or covered bonds in Europe) (Fuller, 2019; Ansell et al. 2018; Schwartz 2009). Ansell et al. (2018) show that deficit countries attract capital inflows from abroad, which tends to stimulate lending, domestic demand, and house prices in those countries and, in turn, decrease voter preferences for the welfare state. In the United States, in particular, the government-sponsored housing bond market attracted sizable capital inflows from abroad, because investments in US mortgage-backed securities were deemed safe and risk-free investments guaranteed by the US government. In sum, domestic housing finance systems are deeply integrated in global and regional markets, such as the European Union, and are thus influencing global capital flows.

4. Growth Strategies and Housing Finance in the United States and Germany

As advanced economies have transitioned to the knowledge economy since the late 1970s, moving away from Keynesian demand management and wage-led

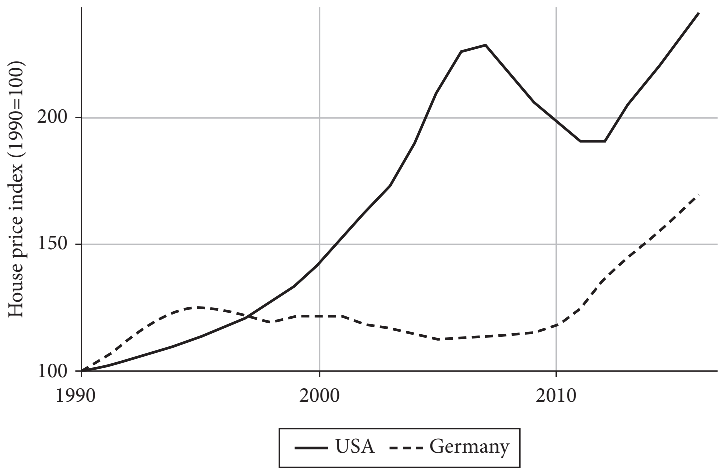

Figure 10.3 House prices in the United States and Germany
Source: Jordà, Schularick, and Taylor (2017).

growth, the United States and Germany readjusted their growth strategies to compensate for the drop in aggregate demand. While the United States pursued a strategy of financialization to support domestic demand, Germany doubled down on export-led growth based on cost competitiveness and high-quality manufacturing. These different trajectories are particularly discernible in housing finance. In the United States, policy-makers built an extensive infrastructure of policy support for housing finance, including generous tax breaks, government guarantees, and monetary stimulus, which some have labeled a strategy of "privatized" Keynesianism" (Crouch 2009) or "mortgage Keynesianism" (Prasad 2012). Germany avoided a path of housing financialization and instead retained conservative housing finance structures, while at the same time sacrificing moderate support for housing finance, such as tax breaks for homeowners, in the name of structural reform and fiscal consolidation.

Concomitantly, as Figure 10.3 shows, the United States not only experienced significant house price fluctuations tied to the business cycle, but also nominal house prices more than doubled from 1990 until the late 2010s. In Germany, house prices remained fairly stable until the late 2000s, but started rising in the 2010s as a result of ultra-low interest rates, a strong economy, supply restrictions, and demographic developments.

4.1 United States: Financializing Housing Markets

Responding to the tumultuous economic realities of the 1970s and 1980s, policy-makers financialized the US economy to generate credit, consumption, and growth (Krippner 2011), including the country's housing market. As Jordà, Schularick, and Taylor (2016: 110) observe, "the growth of finance has been closely linked to an explosion of mortgage lending to households in the last quarter of the twentieth century." They find that mortgage lending as a share of total bank lending increased from 55% in 1970 to 70% in 2007 (p. 117), while mortgage debt as a percentage of GDP rose from 28% in 1970 to over 70% in 2004 (Green and Wachter 2007). Beneath these developments lurk important short-term and long-term growth strategies, such as fiscal policy (i.e., taxation), off-budget policy (i.e., underwriting mortgage debt), and monetary policy (i.e., quantitative easing), all of which tend to lower the cost mortgage debt, stimulate housing demand, credit, and prices, and generate consumption. These strategies provided a powerful cocktail of promoting consumption, growth, and privatized welfare, but they also contributed to instability during the financial crisis of 2008–9.

One important aspect of the financializing growth strategy was the creation and rise of mortgage securitization since the 1970s, often referred to as "housing finance revolution" (Green and Wachter 2007). Prior to securitization, the US housing finance system was based on deposits collected by the savings and loans (S+L) industry. When interest rates rose in the late 1960s, and investors and savers realized they could make more money elsewhere, the S+Ls started hurting, which resulted in illiquid mortgage markets.[8] Politicians of both parties then adopted a strategy of mortgage securitization in the late 1960s, which slowly shifted housing funding from the S+Ls to the capital market. In a series of reforms, successive administrations expanded the role of the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, in the secondary mortgage market (Fligstein and Goldstein 2012; Quinn 2019).[9] These privately operated, government-backed agencies would subsequently buy mortgages, pool them together into mortgage-backed securities, and sell them on to investors. Importantly, these institutions guaranteed investors the principal and interest payments of the underlying mortgages, which meant that the US government bore the risk of large-scale mortgage defaults. Through this off-budget government guarantee that reduced private market risk, the US government sought to generate new, stable, and liquid sources of mortgage finance that would lower the cost of mortgage debt, stimulate bank lending and consumption, and foster economic growth (Green and Wachter 2007). As the S+Ls did not recover from their industry-wide crisis in the late 1980s, the GSEs became the largest sources of

[8] As the S+Ls were limited in how much interest they could pay on deposits, and what investments they could undertake to compensate for dwindling deposits, which put them under pressure.

[9] Fannie had already existed as a government agency since the Great Depression, but was "privatized" in 1968, while retaining the full backing of the US government. Freddie, another for-profit and public–private enterprise, was created to compete with Fannie in 1970. Ginnie Mae was created as a fully public agency in 1968, offering insurance on mortgage-backed securities consisting of loans backed by the federal government.

mortgage funding, providing roughly 42% of all mortgage funding by the late 1990s (Fed 2019).[10] Given the publicly backed status of Fannie and Freddie, they crowded out private market competition within the securitization market, having originated more than 80% of mortgage-backed securities by the 1990s (HFPC 2019). The housing finance revolution was a key element of the financializing growth strategy.

Another housing-based growth strategy is the longstanding tax support for homeownership. Taxpayers had been able to deduct interest on consumer loans, including on mortgage interest, since the adoption of the US federal income tax in 1913. But these tax breaks were initially marginal given that most people did not pay income taxes before World War II (Howard 1997). The housing tax breaks started to increase in size and importance since the 1950s, when the tax base broadened and homeownership expanded. Since then, US governments offered a long list of tax advantages to homeowners—the mortgage interest deduction, property tax deduction, capital gains exclusion, and the foregone tax of imputed rent (i.e., a tax on the rental income one generates by living in one's own home). Yet it was not until the 1970s that tax expenditure on owner-occupied housing increased dramatically as a result of growing mortgage debt and homeownership. For instance, the mortgage interest deduction alone grew to $86 billion by 2009.[11] As tax breaks for homeowners have the effect of lowering the cost of mortgage debt, they blended in seamlessly with mortgage securitization in stimulating the American growth regime.

Despite the efforts of economists, bureaucrats, and rental housing advocates to eliminate the preferential tax treatment of homeowners, the subsidies survived major tax reforms, including the Tax Reform Act of 1986 and the Tax Cuts and Jobs Act of 2017. In the heated discussions leading up to the 1986 reform, the Reagan administration effectively declared the housing tax breaks off limits, considering them as tools to stimulate housing credit, wealth, and consumption in times of illiquid mortgage markets and high interest rates (Howard 1997). For the next thirty years, particularly the mortgage interest deduction had become a third-rail issue in US politics. However, Trump's 2017 tax reform included a temporary provision (until 2025) that capped the interest deduction for mortgages at $750,000 worth of principal (down from one million), a move considered to be an attack on coastal blue states with high house prices.[12] Even so, Slemrod (2018: 86) points out that the 2017 tax reform "did not directly address . . . the substantial income tax preference for owner-occupied housing arising from the

[10] In 1970, the S+Ls held a market share of 41% of total outstanding mortgage debt, which gradually decreased to 4% in 2010 (Fed 2019).

[11] Source: Joint Committee on Taxation, Congress of the United States. https://www.jct.gov/publications.html?func=startdown&id=3642 (accessed January 24, 2020).

[12] The tax reform increased the standard deduction, which encourages some homeowners to use the standard deduction over itemizing deductions, and capped the property tax deduction at $10,000.

complete exemption of the return (implicit rent) the asset provides." Homeowner tax breaks remain some of the most important—and regressive—subsidies in the income tax code. Together, they amounted to $83 billion in 2019.[13]

Until the early 2000s, the housing-based growth strategy seemed to work—but it eventually contributed to the financial crisis of 2008–9. The decade before the financial crisis saw unprecedented growth in house prices (see Figure 10.3), mortgage debt (see Figure 10.2), and mortgage securitization. As Schwartz (2009: xv) notes, "the US housing finance system gave the US economy above-average employment and GDP growth." Since the 1980s, successive administrations spurred these developments by introducing subprime mortgages to increase mortgage liquidity and extend mortgage credit to previously underserved parts of the population, such as low-income households and racial minorities (McCarty, Poole, and Rosenthal 2013). They also started relaxing the underwriting standards that defined what mortgages are eligible for Fannie and Freddie securitization. Armed with purportedly sophisticated financial instruments to manage risk, private banks viewed the growing subprime market as an investment opportunity, as the GSEs were limited to securitizing higher-quality mortgages (Goldstein and Fligstein 2012). Private banks increased their share of the securitization market to 20% in 2006 (HFPC 2019), mostly securitizing subprime mortgages, which resulted in excessive risk-taking, aggressive profit-seeking, and a full-blown house price bubble that led to the financial crisis of 2008–9 (Nelson and Katzenstein 2014).

Policy-makers then targeted the housing market to recover and revive the US economy since the Great Recession of 2008-9. When the housing bubble burst in 2008 and millions of homeowners started defaulting on their mortgages, Fannie and Freddie were exposed to financial losses and faced bankruptcy. Without hesitation, the Bush administration seized control of the two "too-big-to-fail" mortgage giants to protect the housing-based growth strategy, with the goals of retaining liquidity, restoring financial stability, and halting falling consumption (Thompson 2012; Reisenbichler 2020a). These actions also underline Fannie and Freddie's systemic importance for generating economic growth and privatized welfare. Economically, the two institutions are at the center of country's housing finance market deeply interconnected with other industries as well as investors at home and abroad. Socially, it is their mission to provide affordable mortgages to households as part of the privatized welfare state. By bailing out Fannie and Freddie, the US government quasi-nationalized the securitization market, where the two mortgage giants currently occupy a duopoly with virtually no private competition, underwriting $6.8 trillion in mortgage debt or 60% of the country's mortgage market in 2019 (HFPC 2019).

[13] Source: Joint Committee on Taxation. https://www.jct.gov/publications.html?func=startdown&id=5238 (accessed January 24, 2020).

More than ten years after the crisis, Fannie and Freddie have remained nationalized without being subject to comprehensive housing finance reform—a development President Obama's chief economist called the "key unfinished piece of business from the financial crisis" (Furman and Stock 2014). In general, Republicans and Democrats agree that the quasi-nationalization of Fannie and Freddie is undesirable, given that taxpayers are too exposed to the credit risk of mortgage securitization (Reisenbichler 2020a). Yet, when Congress, and the Obama and Trump administrations, discussed housing finance reform, they disagreed on the precise role of the US government in securitization. Reducing the role of the government, such as full-on privatization, would likely increase mortgage rates and could even threaten the liquidity of the beloved thirty-year, fixed-term mortgage, as private lenders would have to absorb credit risk on their own. This would have potentially detrimental effects on housing and consumption. These insights are not lost on politicians. There is a strong—and increasingly rare—bipartisan consensus on securing a strong role for the US government to bear *some* credit risk in mortgage securitization to secure low-cost mortgages. In 2019 and 2020, the Trump administration floated proposals to recapitalize and release Fannie and Freddie from government control, but they have not materialized.

Moreover, the Bush and Obama administrations adopted short-term fiscal and off-budget measures to revive housing and consumption during and after the crisis.[14] From 2007 to 2016, the Mortgage Forgiveness Debt Relief Act allowed homeowners to exempt from taxes income generated through debt forgiveness (or cancelled debt after foreclosure).[15] In 2009, the Obama administration launched the Making Home Affordable Program with $45.6 billion, which included two core components that concluded between 2017 and 2018: the Home Affordable Modification Program (HAMP) that restructured 1.7 million home loans (i.e., reducing interest and principal payments) and the Home Affordable Refinance Program (HARP) that allowed 3.5 million underwater homeowners to refinance mortgages at lower rates.[16] The rationale was that, if homeowners receive debt

[14] In 2012, the US government also negotiated $25 billion in settlements with five major banks as a consequence of their wrongdoing (i.e., the National Mortgage Settlement). These funds were used for forgiving homeowner debt and restructuring loans.

[15] The total cost of the tax break was roughly $1.4 billion from 2008 to 2017. Source: Joint Committee on Taxation. https://www.jct.gov/publications.html?func=startdown&id=1366 (accessed January 24, 2020).

[16] HAMP was financed by the Troubled Asset Relief Program (TARP), which was created by the Bush administration in 2008. The Making Home Affordable program also included the Home Affordable Foreclosure Alternative (HAFA) program, which facilitated the short sales or deeds-in-lieu of foreclosure for banks and troubled homeowners. Sources: US Treasury, Making Home Affordable Program Performance Reports. https://www.treasury.gov/initiatives/financial-stability/reports/Pages/Making-Home-Affordable-Program-Performance-Report.aspx (accessed January 24, 2020); Federal Housing Finance Agency, Refinance Reports. https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/Refi_1Q2019.pdf (accessed January 24, 2020); US Treasury. https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/housing/mha/Pages/default.aspx (accessed January 24, 2020).

forgiveness and refinancing help, this would prevent foreclosure and falling house prices, and instead stimulate aggregate demand. Although criticized for their miniscule size and messy rollout (Mian and Sufi 2014), these short-term measures offer additional evidence that policy-makers tried to stabilize house prices as well as reactivate credit lending and consumer spending.

Finally, it was not only elected officials targeting housing to recover growth. The Federal Reserve adopted large-scale monetary support for housing as part of its quantitative easing (QE) programs (Reisenbichler 2020b). From 2008 until 2018, the Fed has bought and held roughly $1.7 *trillion* in mortgage debt—that is, mortgage-backed securities issued or securitized by the GSEs—constituting roughly 40% of the Fed's balance sheet expansion since 2008. The goals of these actions were twofold: to help fix housing finance and stimulate growth through housing. The logic was to bring down the yields of mortgage bonds and raise asset prices. In less technical terms, the Fed sought to reduce mortgage rates, increase housing demand, credit, and prices, which would then stimulate consumption and growth.[17] In sum, the Fed identified housing as a key sector able to transmit monetary policy and stimulate growth.

Importantly, one third of the US population living in rental housing has not received much policy support as part of growth or welfare strategies. Many renters have struggled since the crisis, facing the prospects of eviction or increasingly unaffordable rental markets (Desmond 2016). Their struggles, however, have not translated into significant government action. The Housing and Economic Recovery Act of 2008 set up a National Housing Trust Fund to support affordable rental housing, especially for very low-income households, but the Fund has thus far only supported low income projects in the amounts of $174 million in 2016, $219 million in 2017, and $267 million in 2018.[18] It is also true that some states, such as California, recently legislated state-wide rent controls to mitigate growing affordability crises. While Democratic presidential nominee Joe Biden included affordable rental housing in his policy platform, the televised Democratic debates and media coverage in general rarely focused on the issue (Yentel 2019). Affordable rental housing remains secondary to homeownership, which is partly due to the centrality of homeownership finance for growth and welfare.

[17] This works through the portfolio rebalancing and signaling channels. The former means that housing bond purchases signal the commitment of the central bank to mortgage markets, which reduces the risk and yields of housing bonds. The latter is the portfolio-rebalancing channel, which means that housing bond purchases reduce the supply and increase the demand of these bonds, raising their prices and lowering their yields.

[18] The Fund was supposed to be financed through Fannie and Freddie starting in 2008, but these institutions were quasi-nationalized in the same year. The Federal Housing Finance Agency (FHFA), the new regulator of Fannie and Freddie, then temporarily suspended the Fund until 2016, which is when the program commenced. Source: National Low Income Housing Coalition. https://nlihc.org/explore-issues/projects-campaigns/national-housing-trust-fund (accessed January 25, 2020).

4.2 Germany: Reforming Housing Finance

When the miracle years of economic growth and welfare state expansion came to an end, the German economy experienced slowly rising deficits and unemployment from the late 1970s until the late 1980s. It adapted to these new macroeconomic realities by building on its existing strength in export-led growth. In contrast to the United States, German policy-makers have not chosen a path of financializing the German housing market (Cooper and Anderson 2020).[19] Mortgage lending as a share of total bank lending increased from 42% in 1970 to 51% in 2007, while mortgage debt as a percentage of GDP grew to 51% in 2005 and then fell to 42% in 2016 (Jordà, Schularick and Taylor 2016: 117; EMF 2017, 2019). However, these numbers are considerably lower than in the United States. Public policies in the housing area—that is, social housing policies, conservative mortgage market policies, and strict monetary policy—greatly contributed to a more restrained housing market. In response to structural economic problems in the early 2000s, the German state even eliminated longstanding tax subsidies for homeowners, as these policies produced unwanted domestic demand and contributed to a growing public finance crisis.

Instead of embarking on a path of dynamic mortgage securitization as a growth strategy, Germany developed a conservative mortgage market as part of what Mertens (2015) calls an "export-savings-regime." The traditional post-war export-savings model was based on channeling household savings into the capital market, so as to provide sources of long-term financing for export industries and housing (Logemann 2012).[20] While German savings rates decreased over time (Mertens 2017), savings remain an integral part of the German political economy in that deposits are the largest source of mortgage finance in the country. Covered bonds (backed by mortgages) are another source of mortgage finance, but only constitute roughly 16% of overall mortgage funding, amounting to €233 billion in 2018 (EMF 2019).[21] When it comes to lending, German banks require high down payments, high underwriting standards, and low loan-to-value-ratios of 78% (EMF 2019). German banks also rarely offer home equity loans or other financial products associated with stimulating consumer spending, nor is there a strong market for subprime mortgages (Mertens 2015: ch. 5). In addition, the federal government does not provide large-scale public underwriting of mortgages or

[19] It should be noted that Mertens (2017) and Wijburg and Aalbers (2017) find that Germany has indeed seen *some* financialization in housing, but much less so than in the United States.

[20] This strategy was supported by the Bundesbank's focus on internal price stability and external currency undervaluation (Höpner 2019).

[21] Covered bonds pool together mortgages and other loans. They are more conservative than mortgage-backed securities, as they stay on banks' balance sheets and cover only up to 60% of home values to absorb losses and protect investors from declining property prices.

mortgage bonds.[22] As these housing finance institutions and policies tend to restrain credit, domestic demand, and consumption, they work well in combination with the German growth regime.

Historically, social housing programs have similarly shown complementarities with the export regime. Adopted to counter the severe post-war housing shortages of more than 4.5 million homes, they offered large-scale support for the private housing market (i.e., subsidized loans or interest-rate subsidies on loans) to create affordable rental *and* owner-occupied housing for broad segments of the population, including the middle class (Voigtländer 2009: 357). These policies produced temporary synergies with the early export-led growth regime by increasing the *supply* of housing, which helped keep down house prices and living costs and avoid a wage-cost spiral. Indeed, housing shortages produced market rents that were well beyond the paying-power of many households in the early post-war years. At that time, the vast majority of new housing units was subsidized by social housing programs; yet, the share of subsidized units declined steadily to about one third of total new units once the housing crisis was over and the private capital market recovered. By 1970, the social housing programs had supported an astonishing number of 5.8 million new homes out of 11.4 million total new homes.[23] As builders received subsidies, they had to ensure long-term, below-market rents for these units, which contributed to securing price stability in property markets.

In the post-Keynesian era of welfare state retrenchment since the late 1970s, social housing programs were considered obsolete. Then Christian Democratic housing minister Oscar Schneider proclaimed that the country's rental housing market was in "excellent" condition, meaning that large parts of the population had access to affordable housing without major shortages (Egner 2014: 16). As a result, the federal government no longer viewed increasing the rental supply as a policy priority and scaled down social housing. Reunification led to a short-lived revival of social housing in the early 1990s, so as to modernize housing in the East and stimulate housing to cope with newcomers in the West. Yet, these and other subsidies contributed to an overheated housing market and construction sector in the East, producing housing vacancies of about one million units and ensuing demolitions funded by the federal government (Wijburg and Aalbers 2017; Michelsen and Weiß 2010). While social housing became a shadow of its former self by the late 1990s and early 2000s, these programs long reinforced the German growth regime, having subsidized 9 out of 24 million new homes between 1950

[22] The Kreditanstalt für Wiederaufbau (KfW), a government-owned development bank, extends small-scale subsidized loans to homeowners. Some *Länder* offer small-scale programs for homeowners, including subsidized loans.

[23] All social housing statistics are based on own calculations from *Bundesbaublatt* since 1952.

and 2000. In sum, social housing contributed to keeping rental and property market prices stable and addressing supply shortages.

Yet, not all housing policies produced complementarities with the German growth regime, such as generous tax support for homeowners. In the early post-war years, the German tax code subsidized the costs associated with owner-occupied housing through the *Eigenheimzulage* (i.e., homeownership tax allowance)[24] and savings contributions in building societies. While the former was adopted to encourage housing investment to overcome housing *supply* shortages, the latter was designed to rebuild the capital market by encouraging savings over consumption (Logemann 2012). By the 1970s, when housing and capital markets recovered, these tax breaks enjoyed little macroeconomic justification in times of sufficient housing supply. As a result, policy-makers scaled down tax subsidies for savings in building societies. Yet, the *Eigenheimzulage* grew into the country's largest tax subsidy, creating frictions with the growth regime by stimulating domestic demand, increasing fiscal deficits and public debt, and diverting investment away from the productive sector.

When Germany experienced structural economic problems and became the sick man of Europe in the late 1990s and early 2000s (Reisenbichler and Morgan 2012), policy-makers adopted structural reforms and austerity to revitalize export competitiveness, including the elimination of housing tax breaks (Reisenbichler 2020a). In addition to the Hartz labor and welfare reforms, they focused on the reform of subsidies (*Subventionsabbau*) and the tax system, so as to eliminate market distortions and reduce the deficit. As the single largest subsidy in the tax code, amounting to €11 billion in 2004, the popular *Eigenheimzulage* reflected the prevailing structural economic problems at the time.[25] The subsidy came under fire from the Social Democrats, who made its elimination a priority, as the subsidy strained the country's finances, channeled funds into unproductive areas of the economy, and mostly benefited rich over poor households, as well as richer Western states over poorer Eastern ones still reeling from a post-unification housing and construction boom and bust (Michelsen and Weiß 2010). In 2006, the Merkel grand coalition of Christian and Social Democrats eliminated the *Eigenheimzulage*. This was painful for the Christian Democrats, given their preference for conservative family life in single-family homes, a strong ownership ideology, and asset-based welfare priorities. Yet, the macroeconomic concerns of reducing public deficits and debt to reinvigorate the economy led the Christian Democrats to sacrifice homeownership support. In exchange for the tax subsidy, in 2008, the grand coalition adopted a subsidized homeownership pension savings

[24] The tax break was called "7b" from 1949 to 1986, "10e" from 1986 until 1996, and *Eigenheimzulage* from 1996 to 2006.

[25] Source: 20th Subsidy Report of the Federal Government. http://dip21.bundestag.de/dip21/btd/16/010/1601020.pdf (accessed January 24, 2020).

scheme (*Wohnriester*), in which savers could use subsidized pension savings for purchasing, constructing, or mortgage payments. This new policy is modest in size and constitutes a "nexus between debt-financed homeownership and private retirement provision" (Mertens 2017: 482). In sum, the frictions between homeowner tax subsidies and the growth regime made the homeownership subsidy vulnerable to reform.

In 2006, the grand coalition also eliminated federal social housing programs as part of its federalism reform to revive the economy (Reisenbichler 2016). The Merkel government agreed that country's complicated federalist setup needed overhaul, as it was holding back economic reforms. Social housing programs were an example par excellence of the complicated workings of federalism: concurrent jurisdiction, co-financing, and decisions at the state level that often did not match federal objectives. As housing markets were affordable and relatively well-functioning in the late 1990s and 2000s,[26] coupled with dim demographic projections, social housing programs were considered obsolete. The reform transferred the authority of social housing to the states and eliminated federal funding. Until 2019, the *Länder* received compensation (€518 million per year) for taking over social housing responsibilities, but the states could freely decide how to use these funds, including for the reduction of fiscal deficits.[27] In addition, as Wijburg and Aalbers (2017: 978) show, politicians sold off public housing associations to financial corporations, resulting in the privatization of 500,000 housing units between 1999 and 2006. Between 2002 and 2018, the social housing stock consequently halved from 2.5 to 1.2 million.[28]

One exception to these structural reforms and austerity measures was the reintroduction of a temporary and miniscule homeownership program between 2018 and 2020. After the German economy emerged as Europe's economic superstar from the Great Recession—with simultaneously rising property and rental prices in many metropolitan regions—the Merkel grand coalition adopted a temporary subsidy (*Baukindergeld*) limited to first-time buyers with children. According to the Bundesministerium des Innern, für Bau und Heimat/Federal Ministry of the Interior, Building and Community (2019), the ministry allocated a total of €9.9 billion for the temporary program from January 2018 until December 2020, a number much lower than the previous tax break (*Eigenheimzulage*).

[26] In 2003, only 32,000 units were subsidized through social housing.

[27] The federal government increased its social housing compensation payments to the federal states to €1 billion in 2016 and €1.5 billion from 2017 to 2019. From 2020 until 2024, the federal government allocated €1 billion each year to support the *Länder* for social housing initiatives. Source: Federal Ministry of the Interior, Building, and Community. https://www.bmi.bund.de/DE/themen/bauen-wohnen/stadt-wohnen/wohnraumfoerderung/soziale-wohnraumfoerderung/soziale-wohnraumfoerderung-node.html (accessed January 24, 2020).

[28] Federal Ministry of the Interior, Building, and Community. https://www.gruene-bundestag.de/fileadmin/media/gruenebundestag_de/themen_az/bauen/PDF/KA_Sozialwohnungen.pdf (accessed January 24, 2020).

However, the policy is hardly a growth strategy and better described as family and wealth policy to facilitate the longstanding Christian Democratic mainstay of homeownership.

In terms of monetary policy, the European Central Bank (ECB) has not stimulated the eurozone's housing market as a growth strategy since the Great Recession (Reisenbichler 2020b). While the ECB expanded its balance sheet to more than €4 trillion, its quantitative easing and bond-buying schemes have not targeted housing. The ECB's asset-buying scheme included housing-related covered bonds and asset-backed securities in the amount of only €290 billion by 2018 (i.e., amounting to only 6% of its balance sheet). The reason for the limited support of housing is that the eurozone comprises not only fragmented housing finance systems but also diverse national growth regimes—export-led in Northern Europe and consumption-led in Southern Europe. As a result, stimulating housing is not an overarching growth strategy in the eurozone. The German exchange-rate-sensitive growth regime is represented by the Bundesbank, which promoted a hawkish approach to quantitative easing to maintain market discipline, price stability, and financial stability. Relatedly, it sounded the alarm about an overheating property market in the country—property prices in the country (big cities) have increased 60% (100%) between 2010 and 2018—warning of asset price bubbles (Bundesbank 2018). German politicians on the left and right also criticized the ECB for ultra-low interest rates, which would squeeze the country's large savings constituency. German exporters similarly viewed loose monetary policy as a peril to currency stability and as market-distorting. When the ECB entered negative interest-rate territory in 2019, German tabloids portrayed Mario Draghi as Count Dracula ("Count Draghila"), sucking dry the savings accounts of Germans (Die Bild 2019). This reflects the larger frictions between ultra-loose monetary policy and the German export-savings model.

Since the financial crisis, housing affordability has become a major national debate again, underlining that rising rental and property prices are considered an economic problem (Cooper and Anderson 2020). Between 2010 and 2018, rental prices (of newly concluded rental contracts) have increased 37% in the country and up to 50% in big cities,[29] partly the result of the strong economy, demographic developments (e.g., net migration surpluses and population growth in many big cities), the status of German property as a safe asset, and insufficient housing supply and construction (Wijburg and Aalbers 2017). In 2015, the German government adopted a national, temporary "rental brake" (i.e., *Mietpreisbremse*), a measure that is supposed to control rent increases of new tenancies in expensive rental markets (i.e., the limit is 10% above the rental benchmark for a given area

[29] The rents of already existing tenancies increased by about 11%. Source: Bundesbank housing indices. https://www.bundesbank.de/resource/blob/615188/fd4c74c42ab45eaf1fb60a9b569b80c2/mL/indikatorensystem-zum-deutschen-wohnungsmarkt-data.pdf (accessed January 24, 2020).

and for a maximum of five years). Recent studies have found a moderate effect of the measure on limiting rent increases, but also that many landlords used loopholes to circumvent it (Michelsen and Mense 2018). As rental prices continue to increase in major cities, the city state of Berlin adopted a five-year-long rent freeze (i.e., *Mietendeckel*) in a political backlash against rising housing costs in early 2020, a measure currently reviewed by the Federal Constitutional Court. Some politicians on the left even supported campaigns to expropriate corporate landlords, such as Deutsche Wohnen and its 110,000 apartments in Berlin. Considering shortages of affordable housing a thing of the past was therefore premature. When eliminating federal social housing programs in 2006 – programs that previously contributed to price stability in the housing market – policy-makers have been "overshooting" structural reforms and austerity.

Overall, German lawmakers rarely identify housing markets as vehicles for growth. To the contrary, when faced with structural economic problems, mortgage debt subsidies were sacrificed. Contrary to the United States, rising property prices—a source of stability in previous decades in the German context—are considered an economic problem and not part of solution for stimulating the economy.

5. Conclusion

Housing markets are integral components of advanced economies. Yet, their precise function for the welfare state and growth regimes varies across countries, which shapes the growth strategies available to policy-makers. While demand-led growth regimes are complementary to "financialized" housing policies that stimulate demand, credit, and growth, countries based on export-oriented manufacturing are complementary to conservative housing finance policies that limit housing and domestic demand. The former strategy is in line with promoting a privatized welfare state through access to credit, whereas the latter ties in with an approach limiting fiscal expenditure. Finally, in export-oriented economies specializing in high-tech manufacturing and dynamic services, "financialized" housing policies that boost private wealth and domestic consumption neither reinforce nor contradict these growth regimes. Empirically, this chapter has contrasted two out of the five possible growth strategies outlined in this volume—the financialized, domestic-demand strategy and the manufacturing-based, export-led growth strategy—by discussing housing finance developments in the United States and Germany.

The implications of growth strategies in housing finance are far-reaching, as they contribute to growing levels of wealth inequality in advanced economies. Particularly "financialized" housing policies favor those able and willing to climb the property ladder—by subsidizing mortgage debt that goes on to stimulate asset and house prices—but not those left behind in the increasingly unaffordable rental and property markets of metropolitan areas. As a result, these policies tend to reinforce housing wealth inequality, a dimension not often studied among comparative political economists who have emphasized inequalities in the labor market, such as dualization or wage inequalities (Palier and Thelen 2010). Yet, housing is an important driver of wealth inequality (Fuller et al. 2020; Fuller 2019) – particularly racial wealth inequality in the United States (Thurston 2018; Freund 2007)[30] – and a potential source of populism (Adler and Ansell 2020). It is therefore key to incorporate the politics of housing finance in studies of political economy.

Moreover, housing growth strategies are not preordained. One caveat is that policy-makers might very well adopt public policies that do *not* reinforce the growth regime. The German case, for instance, shows that the country had in place sizable tax subsidies for homeowners that stimulated private consumption and created frictions with the growth regime's imperative of restraining domestic demand and limiting fiscal deficits. Like other social policies, housing finance policies are multi-dimensional—spanning issues ranging from family values, redistribution, and wealth to urban development—such that elected officials might prioritize different dimensions across time and space. Another caveat is that, instead of producing efficient economic outcomes, growth strategies can lead to policy overshoot (Ornston 2018). Even if lawmakers identify growth strategies that are in line with the growth regime, they run the risk of overinvestment in and overreliance on certain sectors of the economy. The US housing finance market is an excellent example of overshoot, where politicians adopted generous fiscal, monetary, and off-budget subsidies that then partially fueled the housing bubble in the run up to the financial crash of 2008–9 (Calomiris and Haber 2014; McCarty, Poole, and Rosenthal 2013). Future research might profitably explore the degree to which the United States exhausted housing policies as an effective growth strategy in a post-crisis context, as households are facing the simultaneous developments of stagnating incomes and rising house prices, while lawmakers are facing the limits of how much more policy support they can offer.

Finally, the case of housing finance confirms that policy-makers in different growth regimes stimulate different sectors to generate growth. The growth regime perspective can explain why housing finance enjoys a privileged position in the demand-driven United States, a sector that received substantial government help as part of its "financialized" growth strategy. It can also explain why politicians

[30] In the United States, the homeownership gap between black and white households is currently at its highest rate in 50 years, as 71.9% of white households lived in owner-occupied homes but only 41.8% of black households in 2018. In addition to decades-long discrimination in federal housing policy and credit markets as well as lower household income, racial minorities were more likely to hold subprime mortgages and consequently experience financial hardship during and after the Great Recession. Source: Urban Institute. https://www.urban.org/urban-wire/breaking-down-black-white-homeownership-gap (accessed August 17, 2020).

rarely target housing finance to promote growth in export-oriented Germany. The state therefore becomes an active driver of growth in what political actors deem key sectors in advanced economies.

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