Credit-Driven and Consumption-Led Growth Models in the United States and United Kingdom

Alexander Reisenbichler[1] University of Toronto

Andreas Wiedemann[1] Princeton University

Chapter in: Lucio Baccaro, Mark Blyth, and Jonas Pontusson (eds.), *Diminishing Returns: The New Politics of Growth and Stagnation*. Oxford University Press (2022).

Abstract: This chapter examines the foundations and politics of credit-driven, consumption-led growth models in the United States and United Kingdom. We first identify two distinct channels through which these models generate domestic demand: a *housing channel*, in which house prices influence private consumption through credit and wealth effects; and an *income-maintenance* channel, in which credit markets functionally substitute for wage growth and government transfers, enabling households to borrow money to smooth income losses and address rising expenditures. We then show that these models are reinforced by a political coalition of producer groups in the financial and real estate industries, mainstream political parties, and asset-owning voters. Our analysis focuses on how US and UK policymakers have shaped these channels through fiscal, regulatory, and credit policies from the late 1970s until after the financial crisis of 2008-09. The chapter concludes with discussing vulnerabilities of these growth models, including financial instabilities and distributional inequalities.

Keywords: credit, housing, growth model, household debt, homeownership, welfare state, inequality, social policy, financial crisis

Introduction

In recent decades, advanced industrialized countries have transitioned from Fordist production regimes to knowledge economies (Boix 2019; Hassel and Palier 2021; Iversen and Soskice 2019). This post-Fordist transition entailed a decline in the wage share of GDP in most advanced economies, which led them to emphasize different aspects of aggregate demand, such as domestic demand and exports (Baccaro and Pontusson 2016; also see the introduction of this volume). This chapter examines advanced economies that have championed domestic demand in the form of debt-financed, consumption-led growth in response to these structural economic shifts. We focus on the United States and the United Kingdom as exemplary cases where household debt and private consumption are key engines of growth, but also sources of economic instability and inequality.

We argue that these economies generate debt-financed consumption through two major mechanisms that we term the *housing channel* and *income-maintenance channel*. The former suggests that rising property prices can unleash both household borrowing and spending. When house prices grow, homeowners' wealth increases along with their propensity to consume, while their growing housing wealth also improves their housing collateral against which they can borrow to finance spending on consumer goods or welfare services. The latter channel posits that credit markets allow households to maintain their socioeconomic status when earnings stagnate, incomes drop, and expenditures rise, particularly in the context of limited or eroding welfare states. Credit markets functionally substitute for wage growth and government transfers, enabling households to borrow money to smooth income losses and address rising expenditures.

Credit-driven, consumption-led growth models do not exist in a political vacuum. They are sustained by powerful political coalitions of producer groups in the financial services

industry, asset-owning voters, and mainstream political parties. The key producer group is the so-called FIRE sector (i.e., finance, insurance, and real estate), which directly benefits from increasing financial transactions, the expansion of consumer credit, and growing property markets. In electoral terms, current and aspiring homeowners have an interest in accessible and expanding credit markets. While existing homeowners benefit from political measures that tend to increase home values, aspiring homeowners benefit from easier access to credit. Even poorer voters without much asset wealth increasingly rely on accessible credit markets to both smooth income losses and finance expenditures in light of limited government support. Finally, both center-left and center-right parties tend to favor policies that facilitate greater access to credit as growth strategies to generate consumption and domestic demand, particularly in moments of economic crisis (McCarty, Poole, and Rosenthal 2013; Reisenbichler 2021a).

Policymakers have reinforced credit-driven, consumption-led growth models—and the housing and income-maintenance channels—through fiscal and regulatory policies. One way to stimulate these channels is to adopt fiscal policies that provide tax relief on mortgage and other consumer loans. Another is to rely on regulatory policies that ease access to credit or support household borrowing through government guarantees on consumer debt. Together, these policy choices have created permissive credit regimes (Wiedemann 2021a, b) that improve credit access, reduce borrowing costs for households, and thus stimulate debt-financed consumption.

We examine the foundations and politics of credit-financed consumption by turning to the United States and the United Kingdom as exemplary cases. Both countries have permissive credit regimes that allow households to easily borrow money, build asset ownership, and maintain their living standards in the context of declining wages, rising living costs, and limited public welfare programs. In response to post-Fordist challenges of wage stagnation and fiscal austerity since the late 1970s, broad-based growth coalitions have fueled the housing and

income-maintenance channels in order to boost debt-financed consumption. In the United States, policymakers championed fiscal subsidies for consumer debt, government guarantees for mortgages in the primary and secondary markets, and regulatory policies to ease credit access. In the United Kingdom, politicians privatized the social housing stock, liberalized the financial and mortgage system, and relaxed credit constraints for borrowers.

While these measures have contributed to economic growth, both countries experienced a house price bubble that resulted in the financial crisis of 2008-2009. The crisis exposed the vulnerabilities of growth models that are based on credit and consumption. When the housing bubble burst in both countries, credit markets collapsed and household consumption dropped dramatically (Mian and Sufi 2014). To revive their growth models in the post-crisis years, British and American policymakers again fueled the housing and income-maintenance channels by adopting a battery of fiscal and regulatory measures, while central banks facilitated an ultra-low interest-rate environment and flooded capital markets with money. While the credit and housing markets of both economies recovered after the Great Recession, policies to support credit markets contributed to soaring asset prices in recent years. These developments have created distributional inequalities between the haves and the have-nots, potential financial instability, and housing affordability crises among younger, low-income, and minority households. Together, these factors risk undermining the US and UK growth models.

How Credit-Based Consumption Stimulates Economic Growth

We argue that credit-driven growth models stimulate economic growth through two distinct but related channels. The housing channel operates through real-estate markets, in which rising house prices increase homeowners' wealth and loosen their credit constraints, thus boosting

household borrowing and consumption. The income-maintenance channel, moreover, works through credit markets that allow households to maintain their living standards in light of stagnating wages, rising expenditures, and weak welfare support. Credit-driven growth models rely heavily on permissive regulatory and fiscal policy environments that make credit easily available to households. Such permissive credit regimes encompass deep financial markets, including capital markets for mortgages and pension assets, and allocate capital and credit disproportionately toward the household sector. Regulatory policies facilitate credit allocation to households by reducing credit risk for lenders, while fiscal policies incentivize household borrowing by subsidizing the costs of loans (Wiedemann 2021a, b).

The Housing Channel

Housing markets are key pillars of credit-driven growth models as they are able to stimulate domestic demand and economic growth (Fuller 2019; Hay 2009, 2011; Oren and Blyth 2019; Reisenbichler 2021a). The property market is an important sector of the economy (e.g., residential investment and construction) and contributes considerably to the business cycle. In the United States, for instance, declines in residential investment (and consumer durables) frequently preceded economic downturns, making it a "consumer cycle not a business cycle" (Leamer 2015, 45). More generally, housing affects the macro-economy through household borrowing and spending. One core mechanism is that increasing house prices tend to stimulate domestic demand and consumption through wealth and credit effects.

The wealth effect suggests that increasing house prices—and, in turn, housing wealth—increases households' propensity to borrow and consume. As a result, higher housing wealth can directly influence consumption and domestic demand in the economy. As Fuller (2019) notes,

gains in housing wealth can partially substitute for savings, as households "tend to save less and spend more, knowing that they have backup savings in the shape of accumulated housing wealth." On the flip side, Mian and Sufi (2014) demonstrate that, when U.S. house prices and wealth fell during the Great Recession, many households were left with unmanageable debt and forced to reduce consumer spending. In the United States, estimates suggest that a one dollar increase in housing wealth stimulates consumer spending by an average of eight cents (Calomiris, Longhofer, and Miles 2012). Similarly for the United States, Case, Quigley, and Shiller (2013) find that a house-price boom (equivalent the one from 2001-2005 that increased housing wealth by $10tn) would increase consumer spending by 4.3%, while a 35% decrease in housing wealth (such as the one from 2005-2009) would produce a 3.5% decline in consumer spending. Studies on the United Kingdom, similarly, find positive associations between housing wealth and private consumption (e.g., Campbell and Cocco 2007; Disney et al. 2010).

The related credit effect implies that rising house prices increase borrowing and consumption by raising the value of housing collateral against which homeowners can borrow (Muellbauer and Murphy 2008; Aron et al. 2012). Growing demand for credit is often met by banks' increased willingness to lend due to higher levels of collateral; in turn, enhanced credit availability then translates into higher levels of aggregate demand. For the United Kingdom and the United States, Aron et al. (2012, 418) find that easing credit constraints stimulated consumption, as "[f]inancial liberalization has enhanced the positive impact of housing wealth on consumption in the U.K. and U.S." When house prices fall, however, households' decreased net worth constrains their abilities to borrow, which in turn reduces overall lending and spending. Moreover, easier access to credit also allows homeowners to use home equity loans to pay for welfare services, consumer goods, home improvements, business expenses, or other consumer debt. Greenspan and Kennedy (2008, 131) estimate that US mortgage equity withdrawal

amounted to $5396bn *per year* between 2001-2006, which homeowners used for home improvements, personal consumption, paying off consumer debt, or investments in other assets. Similarly, Mian and Sufi (2011) show that US homeowners extracted 25 cents for every dollar in house-price gain from 2002 to 2006. For the United Kingdom, Cloyne et al. (2019, 2134) find that a 10 percent increase in house prices corresponds to an increase of 2-3% in household borrowing through extracting home equity.

The credit and wealth effects work particularly well in permissive credit regimes, such as the United States and the United Kingdom, as opposed to restrictive mortgage regimes in export-oriented Germany or Japan (Wiedemann 2021a). Johnston, Fuller, and Regan (2020) characterize the United States and the United Kingdom as some of the most credit-encouraging mortgage systems among advanced economies, measuring mortgage interest subsidies, property transfer taxation, loan-to-value ratios, interest-rate restrictions, and the depth of the secondary mortgage market. In both countries, housing finance markets have fairly low transaction costs, low down payments, relatively high numbers of homeownership and turnover, and a variety of mortgage products available to households. While high down-payment constraints in Germany or Japan induce prospective homeowners to increase savings in times of rising house prices, lower down payments in the permissive credit regimes of the United States and the United Kingdom ease the credit restraints of prospective homeowners requiring comparatively lower savings (Muellbauer and Murphy 2008; Aron et al. 2012).

Ultra-low interest rates since the Great Recession and during the Covid-19 pandemic have contributed to surging house prices in the United States and the United Kingdom. Despite both countries' permissive credit regimes and down payments that are often as low as 5%, many young and low- to middle-income households in metropolitan regions cannot not keep up with

growing house prices, which could limit the housing market's overall effect on private consumption in the years ahead.

The Income-Maintenance Channel

The second channel to sustain aggregate demand is through supporting households in maintaining their income and economic status when earnings stagnate, incomes drop, and expenditures rise unexpectedly. Debt-financed income maintenance has become a private alternative to public policies that traditionally bolstered households' income. For example, wage bargaining, social insurance against adverse economic events, and social investment in education and family policies have traditionally supported household income. Easier access to credit substitutes for real wage growth, automatic fiscal stabilizers, and other social policies by allowing households to borrow money to maintain their living standards—at least in the short to medium term. We distinguish three specific ways through which a credit-driven growth model helps individuals to smooth income losses and fund (rising) expenditures.

Individuals' expenditures and consumption may suffer severely during periods of income losses. Such losses can stem from unemployment, parental leave, or sickness. These events not only negatively impact households' finances in the short run but can also permanently lower income during old age if pension benefits are tied to lifetime incomes. Traditional social policies support individuals through unemployment and sickness insurance during times of economic distress or through social investment policies such as paid parental leave. These policies help individuals and their families maintain prior living standards and consumption levels. From a macro-level perspective, social policies keep up aggregate demand and, during periods of economic declines, help mitigate recessionary effects as automatic stabilizers. In liberal welfare

states, however, the financial impact of income shocks largely falls onto the shoulders of individuals (Hacker 2019) and may have more severe consequences for aggregate demand. Here, credit markets can operate functionally similar to social insurance policies and allow individuals to smooth income losses and maintain consumption (Wiedemann 2021a). In the absence of a comprehensive welfare state, homeownership also provides a private insurance and nest egg in old age. During temporary income losses, as described above, homeowners also often take out equity loans against the value of their homes.

Wage growth is another component to ensure that households have the necessary financial means to make a living. Credit often becomes the last resort to compensate for stagnating wages and growing inequality (Ahlquist and Ansell 2017; Rajan 2010). While in many countries the earnings of higher-income groups grew considerably, those of low- and middle-income groups increased little or even stagnated in real terms. These patterns of earnings inequality are most pronounced in Anglo-Saxon economies, especially in the United States (Atkinson, Piketty, and Saez 2011). Over the period from 1979 to 2020, wages for the top 1% of Americans increased by 180%, whereas wages for the bottom 90% only grew by 28.2%. In 2020, average annual wages for the top 1% were $823,000, while average annual wages for the bottom 90% was only $40,000 (Economic Policy Institute, 2021). Earnings and income inequalities allow higher-income groups to recycle a share of their earnings through the financial system into loans to middle- and lower-income groups (Kumhof, Rancière, and Winant 2015), thus amplifying the effect of easier access to credit as a substitute for stagnating wages. In the absence of wage increases and redistributive efforts to curb excessive income inequality, easy borrowing allows households to maintain relative consumption levels and emulate consumption patterns of higher-income groups (Frank, Levine, and Dijk 2014). The expansion of debt is a politically feasible way to allow households, especially those in the middle class, to maintain

their living standards in the context of increasing inequality. Distributing resources through credit markets is less costly, both fiscally and politically, as it avoids contentious questions of allocating tax revenues and fiscal redistribution. Credit markets offer policymakers a way to deal with growing societal demands and democratic overload in light of limited fiscal capacity (Krippner 2011; McCarty, Poole, and Rosenthal 2013).

Wage stagnation turns into a financial problem for households as living costs and expenditures for education, childcare, and healthcare have grown faster over the last decades than incomes (OECD 2019). A rising number of households live paycheck to paycheck and have little financial leeway to deal with unexpected income shocks, often struggling to meet daily expenditures (Kaplan, Violante, and Weidner 2014). Households' limited financial buffers are all the more precarious in the American and British growth models, because they tend to provide marked-based welfare services such as education, childcare, and healthcare that are costly to individuals. Social investment policies that offer publicly funded education, subsidized or free childcare, and universal and comprehensive healthcare are either absent or very limited. Instead, households have to finance such goods and services on their own and often resort to credit markets.

In countries that rely on domestic demand as the key pillar of growth, income shocks, rising expenditures, and wage stagnation can therefore pose threats to aggregate demand and undermine domestic consumption. A weak welfare state aggravates not only labor market and economic risks but also the unequal distribution of economic growth, and it further contributes to wage stagnation of average incomes. All this is deeply problematic for a growth model that is heavily dependent on domestic consumption. Easier access to credit can, to some extent, fill this void by allowing households to maintain prior consumption levels and living standards and prop

up aggregate demand. But at the same time, it also makes people, policymakers, and the economy much more vulnerable and exposed to credit markets.

The International Dimension

The US and UK credit-led growth models depend and thrive on their unique position in the international political economy. The chapter by Schwartz and Blyth in this volume emphasizes that the United States and, to a lesser degree, the United Kingdom, are global financial power hubs, even though London's status as Europe's financial center remains uncertain after Brexit. Their central and prominent positioning in the global economic and financial order attracts significant capital inflows, as global investors consider their government bonds as safe assets and their currencies as global reserves. As a result, credit-led growth models in the global financial core have been able to sustain large current account deficits supported by capital inflows. These capital inflows often come from export-driven growth models, such as Japan, Germany, and China, which run current account surpluses and channel excess savings abroad (Ansell, Broz, and Flaherty 2018). After lifting capital controls across the OECD, the US dollar's status as the major reserve currency gave the United States an "exorbitant privilege" (Eichengreen 2010), allowing it to sustain massive current account deficits that have fueled household borrowing due to foreign investments in US Treasuries and mortgage-backed securities (MBS).

When foreign funds flow into domestic capital markets, domestic credit markets expand and borrowing costs fall, bolstering the housing and income-maintenance channels of debt-financed consumption (Ansell, Broz, and Flaherty 2018). Housing bonds, such as mortgage-backed securities, are often considered to be the second-best option after government bonds in core credit-led economies (Schwartz 2009). In the United States, the federal government is

backing most mortgage-backed securities through the government-sponsored mortgage giants, Fannie Mae and Freddie Mac, and their fully public cousin, Ginnie Mae, which make these bonds attractive to global investors. In 2018, China, Taiwan, and Japan were the largest foreign holders of US mortgage-backed securities, holding roughly $700bn or 10% of the entire US MBS market.[1] The UK's smaller residential MBS market (i.e., £133bn in outstanding residential MBS in 2019) also relies on foreign investors, especially from the United States.[2] Global capital inflows into the housing sector, in turn, increase housing demand as well as prices, while boosting housing wealth and easing credit constraints that are associated with higher consumer spending.

The Politics of Credit and Consumption: Growth Coalitions

Credit-driven, consumption-led growth models are underpinned by what Baccaro, Blyth, and Pontusson describe as "growth coalitions." These coalitions are constellations of political and economic actors who share a common interest in facilitating easy access to credit and debt-fueled consumption. They include producer groups in the financial services industries, voters that benefit from asset-price inflation and easy access to consumer credit, and political parties that claim to act in the "general economic interest" by stimulating credit and consumption.

The most important producer group is the FIRE service sector (i.e., finance, insurance, and real estate). These industries include banks, insurance companies, credit card companies, hedge funds, mortgage brokers, homebuilders, and realtors. While these industries do not always

[1] Kaul, Karan and Laurie Goodman. 2021. *Foreign Ownership of Agency MBS*. Research Report, Ginnie Mae. https://www.ginniemae.gov/newsroom/publications/Documents/foreign_ownership_mbs.pdf (Accessed January 19th, 2022)

[2] Association for Financial Markets in Europe. 2019. *Securitisation Data Report*. https://www.sifma.org/wp-content/uploads/2019/09/Europe-Securitisation-Quarterly-2019-09-23-AFME-SIFMA.pdf (Accessed January 19th, 2022)

agree on policy details, they all profit from the expansion of consumer credit, property markets, and household consumption. These lobby groups are powerful constituents of the growth coalition, owing to their central structural position within credit-led growth models and their ability to frame political demands in ways that align with their growth models' macroeconomic imperatives. While labor unions play a key role in moderating wages in (price-sensitive) export-oriented economies, they are not part of this coalition because they tend to promote fiscal and redistributive policies seen as incompatible with dynamic financial markets. In fact, the influence of labor unions and the labor share have declined in recent decades in most OECD countries, including the United States and United Kingdom, while the role of capital has increased in globalized financial markets with mobile capital (Bergholt, Furlanetto, and Maffei-Faccioli, 2022; Iversen and Soskice 2019; Thelen 2019).

The key electoral constituency consists of current and aspiring homeowners—and asset owners more generally—who benefit from accessible and subsidized credit. Permissive consumer credit markets stimulate housing prices and other financial assets, allowing many households to move up or down the housing ladder and tap into home equity. As a result, housing is often viewed as an investment good embedded in a wider culture of finance. Renters, by contrast, often face the downside of dynamic real estate markets in the form of rising rents, while being effectively excluded from wealth gains and participation in an asset-based welfare state that heavily depends on real estate ownership. Middle- and upper-income households are the ones benefiting the most from such a "finance culture," because they are the predominant owners of property and stocks that tend to rise in value when financial markets and credit expand (Fligstein and Goldstein 2015).

Finally, political parties represent the interests of these "policy demanders" (Bawn et al. 2012) and are themselves shaped by the imperatives of the growth model. Mainstream political

parties on the left and right tend to favor policies that aim to stimulate debt-financed consumption—the key element on which their growth model relies—which often produces surprising degrees of bipartisanship. In doing so, they also advance the interests of the FIRE industries and asset owners. Particularly in moments of crisis, center-left and center-right parties often agree to stimulate and double down on boosting the FIRE sector to generate growth (Reisenbichler 2021a).

What are the specific strategies available to policymakers to stimulate credit-led growth models? The toolkit of policy choices includes a wide array of fiscal and (de-)regulatory policies that make credit more easily and widely available, encourage the establishment of new consumer loan products, and/or subsidize borrowing costs, all of which stimulate debt-fueled consumption through the housing and income-maintenance channels. Fiscal policies can encourage consumer debt through tax relief on interest payments (e.g., for student loans or mortgages); favorable tax treatment of debt-financed assets (e.g., for owner-occupied homes); or direct spending programs to finance the cost of homeownership. Second, (de-)regulatory policies include government guarantees on household debt that reduces the cost of borrowing for the consumer by absorbing financial risk from banks; liberalizing measures to encourage the proliferation of new consumer loan products; or initiatives to widen credit access to previously excluded groups. Such measures are the building blocks of permissive credit regimes that facilitate access to credit in the US and UK economies with limited welfare states, and they support income losses and social investment by relying on debt-financed consumption.

Credit and Consumption in the United States and United Kingdom

In the United States and United Kingdom, the economic power of financial and real estate sectors has grown at much higher rates than in other OECD countries (Kalinowski 2013) (see also the chapter by Ban and Helgadottir in this volume). Figure 8.1 compares the FIRE sector's value added as a share of GDP in the United States, United Kingdom, and export-oriented Germany.

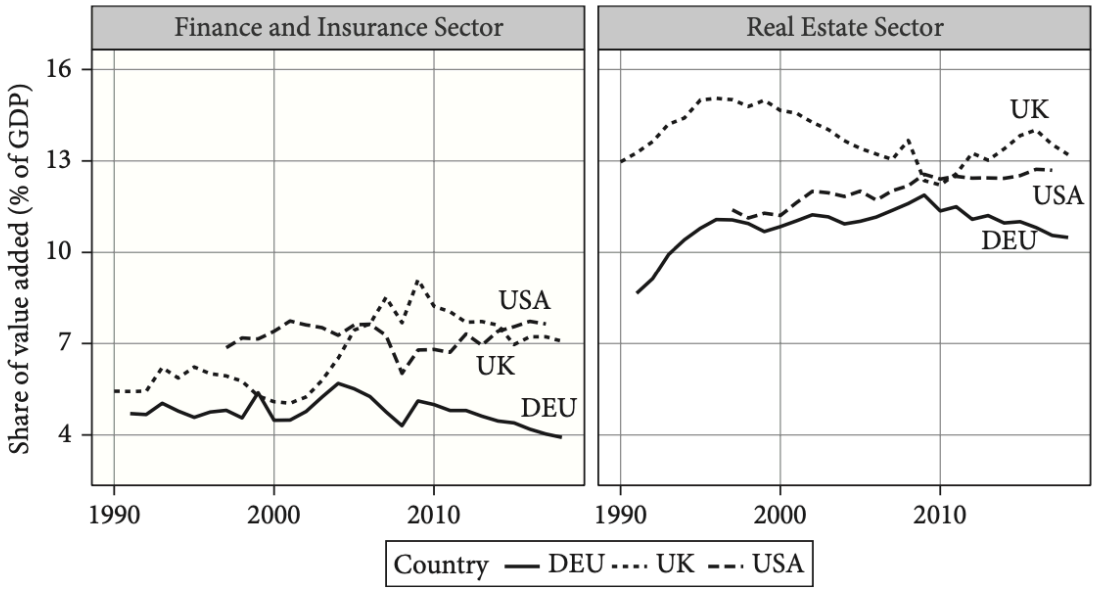

Figure 8.1 Value Added by Sector. Notes: Value added is measured as the value of output minus the value of intermediate consumption. Source: OECD National Accounts Statistics. 2020.

In the 2010s, the finance and insurance sector together added more than 7% of GDP, while the real estate sector contributed more than 13% in both the United States and United Kingdom. In Germany, by contrast, finance and insurance added only 4% of GDP and real estate only 10%. Relatedly, the status of New York and London as major financial centers in the global financial system attracts foreign capital that flows into consumer credit markets and is channeled into secured (e.g., mortgages) and unsecured debt (e.g., credit cards) (Eichengreen and Shah, 2020).

The central sectoral position of the FIRE industries in credit-driven growth models makes them powerful players in these economies. Unlike in export-oriented Germany, easy access to credit and household borrowing is a key pillar to support aggregate demand in the United States and United Kingdom.

The importance of the FIRE sectors is also linked to relatively high levels of homeownership and household indebtedness. As Figure 8.2a shows, around two-thirds of the US population are homeowners, a number that has been fairly stable since the 1970s. In the United Kingdom, homeownership rates increased from around 50% in 1970 to an all-time high of 71% in the mid-2000s. This stands in stark contrast to Germany, where homeownership remains much lower compared to the United Kingdom and the United States.

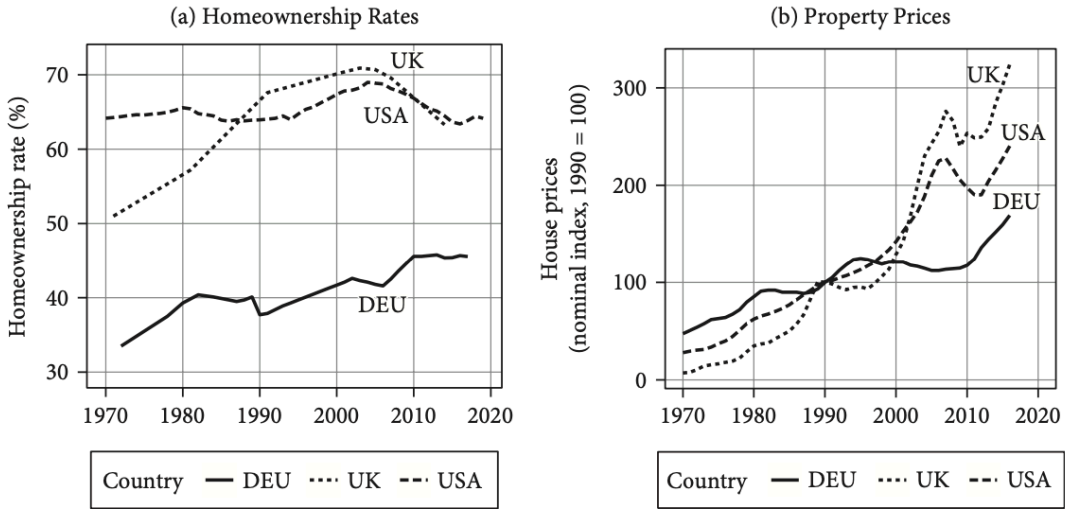

Figure 8.2 **Homeownership and Property Prices (a) Homeownership Rates (b) Property Prices.** Sources: Panel (a): Kohl (2017, 20–22). Panel (b): Jordà-Schularick-Taylor Macrohistory Database. 2019.

A related key feature of credit-led growth models—although certainly not limited to such economies—is rising house prices. Figure 8.2b shows that between the 1990s and the onset of the Great Recession, property prices have grown nearly three times in the United Kingdom and

2.5 times in the United States. Germany, by contrast, even experienced a decade of *falling* house prices from the mid-1990s until the mid-2000s, and only saw a steep increase during the 2010s.

Relatively high levels of homeownership, paired with growing property prices and turnover rates in housing markets, also have consequences for mortgage debt levels. Figure 8.3 shows the average mortgage debt and consumer credit as a share of households' disposable income. Since the mid-1990, households in the United Kingdom and United States took on increasing levels of mortgage debt relative to their incomes. At the onset of the 2008-09 financial crisis, households in both countries held about 120% of their incomes in mortgages. After the Great Recession, mortgage debt declined as households began deleveraging debt. In contrast, Germany's mortgage debt levels only increased from the mid- until late 1990s and remained relatively flat since then. While mortgage debt is typically the single-largest type of household debt, American and British non-mortgage consumer credit—which includes credit card debt, car title loans, and student debt—also increased considerably in the years leading up to the financial crisis. After the Great Recession, US and UK households began deleveraging, while non-mortgage consumer credit plays a negligible role in Germany.

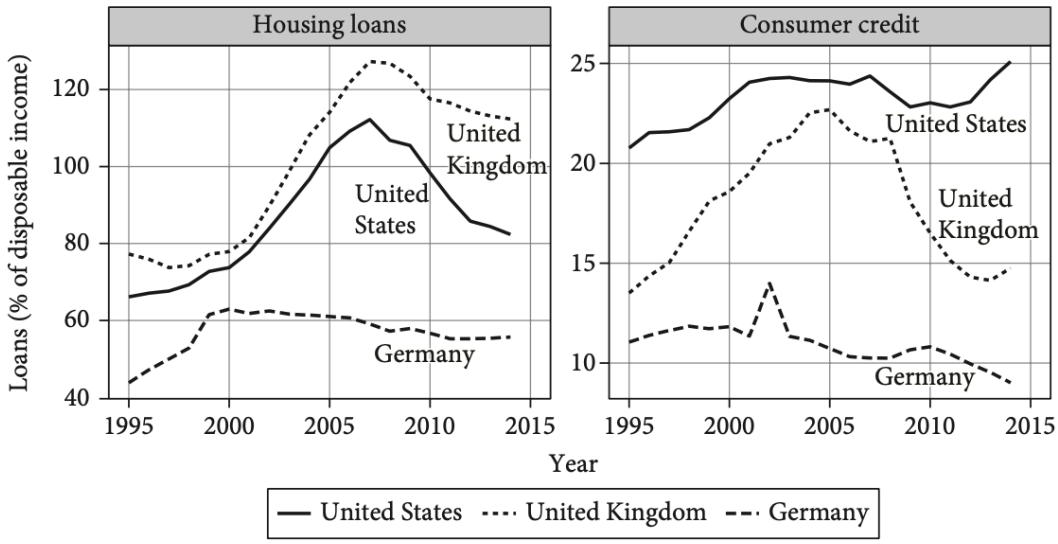

Figure 8.3 Household Debt as Share of Disposable Income. Notes: Consumer credit is measured as the outstanding amounts of loans of resident households and NPISHs for consumption purposes such as credit cards and overdrafts. Sources: European Credit Research Institute (ECRI). 2015.

Finally, the US and UK economies are both characterized by high consumer spending and low savings in the economy. Figure 8.4a shows that, since the 1970s, US household consumption as a share of GDP climbed from roughly 60% in 1980 to over 68% in the 2000s. At the same time, gross savings as a share of GDP have declined since the late 1970s (see Figure 8.4b). After hitting its low point of 3% of disposable US household income in 2005—down from 14% in 1974—the personal savings rate rebounded to around 8% in the 2010s.[3] In the United Kingdom, household consumption has remained between roughly 64-69% for most years since the mid-1970s. While the UK's personal savings rate stood at 10% in 1995, it even entered negative territory between 2017 and 2019, but the pandemic lifted the savings rate to 8% again in 2020. In contrast, German household consumption as a share of GDP has dropped considerably from 58% in 1980 to about 52% today. In 2018, private consumption of US and UK households

[3] OECD. 2022. Household Savings. doi: 10.1787/cfc6f499-en (Accessed January 19th, 2022)

was thus nearly 15 percentage points higher than that of German households, while German gross savings as a share of GDP were 10 to 15 percentage points higher than in the American and British economies that year.

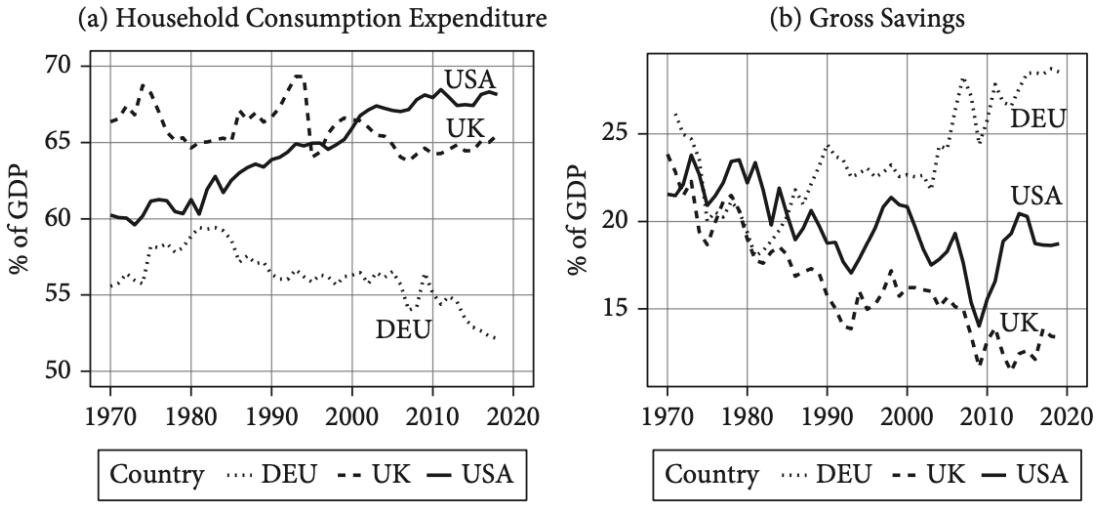

Figure 8.4 Household Consumption and Savings Rates (a) Household consumption Expenditure (b) Gross Savings. Notes: Panel (a): Households and NPISHs final consumption expenditure is the market value of all goods and services, including durable products, purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. Household consumption expenditure includes the expenditures of nonprofit institutions serving households, even when reported separately by the country. Panel (b): Gross savings are calculated as gross national income less total consumption, plus net transfers. Sources: World Bank national accounts data and OECD National Accounts data files. World Bank Data NE.CON.PRVT.ZS (panel a) and NY.GNS.ICTR.ZS (panel b).

The American Growth Model

The US growth model combines a permissive credit regime with deep and liquid financial markets that allow many households to easily borrow money, build asset ownership—in particular housing wealth—and maintain their living standards in the context of declining wages, rising living costs, and limited social policies. As we show below, the housing and income-maintenance channels are key to sustain debt-financed consumption in these growth models.

Housing Channel

The US housing market is a central element of the US growth model (Prasad 2012; Reisenbichler 2021a; Schwartz 2009, 2020). To stimulate housing-based growth, in particular since the 1980s, policymakers from both parties have championed government guarantees in primary and secondary mortgage markets and tax subsidies for homeownership, while also liberalizing and financializing mortgage markets. As these measures widened access to mortgage credit and reduced mortgage costs for borrowers, they contributed to rising mortgage debt, house prices, and (debt-financed) household consumption from the 1980s until the early 2000s. When the 2000s housing boom turned into a full-blown financial crisis in 2008, policymakers adopted further programs to support housing as a way to restore the US growth model. While these measures stabilized housing and private consumption, they also fueled renewed house price surges in the 2010s, which in turn produced concerns about both financial instability and housing unaffordability in metropolitan regions.

The American growth coalition behind these policy choices encompasses housing-related interest groups, an influential home-owning constituency, and politicians from both parties. Well-organized interest groups, such as the National Association of Realtors (NAR)—and its 1.5 million members active in every single electoral district[4]—the Mortgage Bankers Association (MBA), the National Association of Home Builders (NAHB), and other financial institutions have been strong lobbyists in favor of expanding government support for housing. Indeed, the real-estate lobby is one of the most powerful ones in the Beltway, with a lobby spending of

[4] National Association of Realtors. 2021. *Monthly Membership Report*. https://cdn.nar.realtor/sites/default/files/documents/monthly-membership-12-2021.pdf (Accessed January 19th, 2022)

$133m in 2020, which made it the fourth-largest lobby after the pharma, electronics, and insurance industries that year.[5] Relatedly, members of both the Democratic and Republican Parties have repeatedly supported measures to support housing and mortgage markets, a longstanding bipartisan consensus that is increasingly rare in American politics. Policymakers of both parties get behind these policies not only because they benefit the FIRE lobby and home-owning voters but also because politicians believe these programs to be strategies that can stimulate mortgage debt, housing activity and prices, and "ever-larger short-term consumption and spending" (Acharya et al. 2011, 171-172).

Underlying the US housing channel is an architecture of fiscal and regulatory policies that subsidizes mortgage debt, lowers borrowing costs for homeowners, and widens access to mortgage credit, a set of policies that has evolved for almost a century. The US federal government stimulates housing markets and mortgage debt on at least three different levels. First, the US Treasury provides tax subsidies for homeownership and mortgage debt, such as the mortgage-interest deduction and capital gains exclusion on the sale of homes, which together amounted to $62bn in 2019.[6] Second, in the primary mortgage market, US government agencies offer private banks mortgage insurance against mortgage defaults (Thurston 2018). In 2018, the Federal Housing Administration and the U.S. Department of Veteran Affairs guaranteed roughly $375bn in homeowner mortgage payments to banks.[7] Third, (quasi-)governmental agencies—such as Fannie Mae, Freddie Mac, and Ginnie Mae—guarantee the vast majority of mortgage-backed securities in the country, an astonishing number of more than $7 trillion dollars. These

[5] Open Secrets. 2020. "Industries." https://www.opensecrets.org/federal-lobbying/industries?cycle=2020. (Accessed January 19th, 2022)

[6] Joint Committee on Taxation, "Estimates of Federal Tax Expenditures for Fiscal Years 2019-2023." December 18th, 2019, https://www.jct.gov/publications/2019/jcx-55-19/ (Accessed January 19th, 2022)

[7] See Kaul, Karan, Laurie Goodman, John Walsh, and Jun Zhu. 2019. *Mortgage Insurance Data at a Glance.* The Urban Institute. https://www.urban.org/sites/default/files/publication/101403/u.s._mortgage_insurance_data_at_a_glance_-_2019_3.pdf. (Accessed January 19th, 2022)

intertwining programs channel significant amounts of domestic and global capital in the housing market by purportedly reducing risk for financial actors and by reducing borrowing costs for consumers. Over time, policymakers have amended and expanded these government programs in repeated efforts to stimulate the country's housing market and domestic demand.

Especially since the 1980s, policymakers financialized the country's mortgage market by adopting several measures to stimulate mortgage lending, housing activity, and debt-financed consumption. Before then, the US housing finance market was relatively conservative and based on domestic deposits and savings (Fligstein and Goldstein 2012; Green and Wachter 2005). Yet, policymakers adopted sweeping (de-)regulatory reforms in response to increasingly illiquid mortgage markets and sluggish housing growth. First, they liberalized the primary mortgage market for lower-income households by allowing unconventional mortgage loans, such as Alt-A, adjustable-rate, and Jumbo mortgages (Schwartz 2009). Home equity loans were part of this liberalization effort and soon grew from only $1bn in the early 1980s to more than $300bn in outstanding debt in 2003, while the number of active loans increased from 23,000 in 1980 to 1.3 million in 2000.[8] Second, policymakers revolutionized the secondary mortgage market by creating a new housing finance system based on mortgage-backed securities attractive to domestic and global investors. The quasi-governmental agencies—Fannie Mae, Ginnie Mae, and Freddie Mac—soon became dominant actors trading mortgage-backed securities that came with a government guarantee (Morgan and Reisenbichler 2021). By the early 2000s, the government-backed trio underwrote $3.5tn in mortgage debt, constituting 35% of the residential mortgage

[8] Bureau of the Census. 1995. *Home Equity Lines of Credit — A Look at the People Who Obtain Them.* Statistical Brief, SB/95–15; Cavanaugh, Linda. 2007. *Home Equity Lines of Credit— Who Uses This Source of Credit?* U.S. Census Bureau. (Accessed January 19th, 2022).

market.[9] Finally, policymakers watched the growth of homeowner tax breaks without curbing these tax breaks when they had the chance, such as during Reagan's 1986 Tax Reform Act. As a result, the mortgage interest deduction grew to $100bn annually just prior to the financial crisis (Hilber and Schöni 2016, 321).

The late 1990s and early 2000s saw booming housing markets and debt-financed consumption, but also a brewing housing bubble in the subprime market. The boom was in part produced by massive government support for the housing sector, low interest rates, global capital inflows, and aggressive profit-seeking behavior that mispriced risk in deregulated financial markets. Both the Clinton and George W. Bush administrations did little to stop the party—to the contrary, they developed their respective "national homeownership strategy" and "aggressive housing agenda" to stimulate housing markets especially in underserved parts of the population. In this period, many homeowners used their houses "as an ATM to finance consumption" (Acharya 2011, 171). In 2009, the amount of outstanding home equity loans was at an all-time high of $700bn, while the Financial Crisis Inquiry Commission estimates that US household extracted $2 *trillion* between 2000 and 2007.[10]

When the housing bubble burst in 2008, the result was a vicious cycle of falling house prices, growing mortgage defaults and foreclosures, household debt deleveraging, and faltering consumption (Mian and Sufi 2014). To revive the US growth model, the Bush administration quasi-nationalized the battered Fannie Mae and Freddie Mac to stabilize mortgage liquidity and reassure global investors—chiefly China—that the US government was backing agency-related

[9] See Housing Finance Policy Center. 2021. *Housing Finance at a Glance.* The Urban Institute (Accessed January 19th, 2022).

[10] Goodman, Laurie and Michael Neal. 2019. "Good News for the Next Economic Downturn: Home Equity Use Is Low." The Urban Institute. https://www.urban.org/urban-wire/good-news-next-economic-downturn-home-equity-use-low (Accessed January 19th, 2022); Financial Crisis Inquiry Commission. 2011. *The Financial Crisis Inquiry Report.* Washington, DC. https://www.govinfo.gov/content/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf (Accessed January 19th, 2022)

mortgage-backed securities (Schwartz 2009). Fannie and Freddie have since remained in the hands of the US government, meaning that the American state currently guarantees $7.3tn in mortgage debt (Reisenbichler 2021a; Schwartz 2020). The Obama administration also adopted the Making Home Affordable initiative, part of the Troubled Asset Relief Program (TARP) of 2009, to reduce principal and interest payments of distressed homeowners, which restructured 1.8 million home loans and refinanced 3.5 million underwater mortgages at lower rates from 2009 until 2018 (Reisenbichler 2021b). While home equity withdrawal decreased after the financial crisis, outstanding home equity debt was still around $370bn in 2019 and remains a major component of debt-financed consumption in America.

In the fiscal realm, policymakers allowed distressed homeowners tax exemptions on debt forgiveness (through the Mortgage Debt Relief Act) at a cost of $1.4bn between 2008 and 2017 (Reisenbichler 2021b).[12] And it offered first-time buyer tax credits of up to $7,500 per household (first adopted under the Housing and Economic Recovery Act of 2008) to 2.3 million homeowners that cost taxpayers $16.2bn between 2008 and 2010 (Baker 2012). Finally, the Federal Reserve's ultra-expansionary monetary policy reinforced actions by elected officials, as it bought and retained over $2tn in mortgage-backed securities as part of quantitative easing programs to reduce mortgage rates and stimulate the wider economy (Reisenbichler 2020).

However, as much as these policies helped produce an economic recovery, they also contributed to surging house prices in times of ultra-low interest rates that have excluded many young, minority, and low-income households from the property ladder. The pandemic has exacerbated these developments, due to prolonged expansionary monetary policy and increased demand for housing (outpacing supply). These developments have reinforced distributional

[12] Note that Trump's 2017 tax reform temporarily limited the mortgage interest deduction (until 2025) in an attack on blue states along both coasts where house prices are high.

disparities between asset owners and non-owners and created concerns about overheating housing markets even though mortgage lending is more conservative today than it was before the 2008–2009 crash.

Income-Maintenance Channel

The income-maintenance channel constitutes the second building block of debt-financed consumption in the United States. The US growth model is highly dependent on household consumption to sustain aggregate demand, which, in turn, makes it vulnerable to income shocks, stagnating wages, and expenditure hikes that threaten to reduce household consumption.

Income shocks caused by unemployment, sickness, or temporary leave from work can negatively affect household consumption and therefore undermine aggregate demand. Through social consumption policies such as unemployment insurance, welfare states typically mitigate the effect of earnings losses on consumption patterns by offering income support during times of economic distress. The American welfare state, however, is much more limited than Social Democratic or Continental European welfare regimes and delegates responsibility to address social risks to individuals, employers, and private markets (Howard 1997; Morgan and Campbell 2011). Because of insufficient savings, many households have turned to credit markets and borrowed money to smooth income losses. Credit has become a private alternative to a public welfare state that allows households to maintain consumption in light of income losses (Wiedemann 2021a, c).

Over the past two decades, two trends have forced more households into debt. First, policy drift and welfare state retrenchment have shifted the burden of social risks even further away from the shoulders of society onto individuals themselves (Hacker 2019). The Personal

Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 marked the most far-reaching form of welfare retrenchment under President Clinton, abolishing the Aid to Families with Dependent Children (AFDC) program and replacing it with the Temporary Assistance for Needy Families (TANF), a program with stricter work requirements and time-limited benefits. In the early 2000s, President Bush began to implement welfare entitlement reforms under the guiding philosophy of "compassionate conservatism" that would shift responsibility for the provision of social welfare away from the government toward private-sector organizations such as markets and faith-based groups. His ideas of an "ownership society," in which economic prosperity is best rooted in personal ownership of assets, laid the foundations for an asset-based welfare state.

The second trend that contributed to rising household indebtedness is that employment trajectories in the United States have become more flexible, interrupted, and unstable. The workplace has become "fissured" (Weil 2014) as firms outsource larger shares of their production and construct extensive networks of subcontracting and franchising to streamline operations and cut (labor) costs. The turn from stakeholder to shareholder models of corporate governance shifted the power from managers to shareholders and the focus from long-term interests such as stable firm-worker relationships to short-term considerations such as stock prices (Gospel and Pendleton 2005). These trends affect households' financial situation directly as they make household income more volatile (Dynan, Elmendorf, and Sichel 2012) and indirectly because interrupted employment patterns often disqualify individuals from social benefits if they no longer meet eligibility requirements. In this environment, credit markets have emerged as a private solution to address income losses during unemployment, sickness, and other periods of temporary leave from work. A 2004 study found that around one-third of US families drew on credit cards to cover basic living expenses during a four-month period (Draut

2005, 11). Easier access to credit is the fuel to keep aggregate demand up and running when incomes and earnings decline and the welfare state is not providing adequate support.

Credit markets further help sustain aggregate demand when living costs and prices for expenditures such as education, childcare, and healthcare have increased more than household incomes. Between 1996 and 2014, median household expenditures grew by about 25%. While expenditures recovered from the downturn during the Great Recession, incomes often did not. This pushed the median expenditure-to-income ratio for a two-earner couple with two children up to 75% (Pew Research Center 2016). Low-income American households today spend a higher share of their budgets (about 82% in 2014) on basic needs such as housing, food, transportation, healthcare, and clothing than they did three decades ago (Schanzenbach et al. 2016). But the financial burden of rising expenditures is not limited to low-income households. It also affects middle-income households who often live paycheck to paycheck and have little savings to weather income losses or expenditures hikes (Kaplan, Violante, and Weidner 2014). In 2020, about 34% of American adults reported having difficulty covering everyday expenditures such as food, rent or car payments.[13] In another survey, more than a third of American households stated they could not cover unexpected expenditures of $400—or only by going into debt.[14]

Rising expenditures have become particularly burdensome because incomes have not grown commensurately. Current real average wages have the same purchasing power as they did nearly 40 years ago. Gains have largely been concentrated among high-income earners. Since 1980, inflation-adjusted hourly wages for workers in the bottom decile have increased by 8.9%, which corresponds to an annualized inflation-adjusted growth rate of just 0.2%. Workers at the

[13] See Center on Budget and Policy Priorities. Covid Hardship Watch. https://www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and (Accessed January 19th, 2022)

[14] See Federal Reserve. 2020. Report on the Economic Well-Being of U.S. Households in 2019 - May 2020. https://www.federalreserve.gov/publications/2020-economic-well-being-of-us-households-in-2019-dealing-with-unexpected-expenses.htm (Accessed January 19th, 2022)

median wage earned 16.8% more than four decades ago (0.4% annualized growth rate), while those in the top decile gained 46.9% (about 1% compounded growth rate) (Economic Policy Institute 2018). The reasons behind stagnating real wages are hotly debated and include the decline of labor unions, a widening wage gap between workers with and without college degrees, restrictions on job-switching, a growing pool of workers who are either in non-standard forms of employment or outside the formal labor force, as well as the technological change and the rise of low-wage service jobs (Atkinson, Piketty, and Saez 2011; Kristal and Cohen 2017; Mishel et al. 2012). Wage stagnation poses a key threat to a consumption-driven growth model because it undermines households' ability to consume, especially when the costs of living and other expenditures rise. Financial deregulation and easier access to credit provided policymakers across the political aisles with a solution to prop up aggregate demand that had a limited fiscal imprint on public budgets and, therefore, was politically feasible (Krippner 2011; Rajan 2010).

The electoral dynamics between policymakers, voters, and interest groups in the American growth model were in full display during and after the financial crisis. Mian, Sufi, and Trebbi (2010) show that politicians in areas with high mortgage default rates were more likely to support the 2008 American Housing Rescue and Foreclosure Prevention Act (AHRFPA), which provided financial insurance for the Federal Housing Administration for renegotiated mortgages as well as unlimited financial support for Freddie Mac and Fannie Mae. Politicians who received campaign contributions from the financial services industry were much more likely to vote in favor of the Emergency Economic Stabilization Act (EESA), which allowed the government to recapitalize banks through direct purchase of assets and distressed mortgage-backed securities. People who did not own a home but were similarly affected by the crisis through job losses and have large outstanding credit card or student loan payments did not benefit from similar

protections and bailouts. Both programs reflect the political and economic importance of homeowners as consumers and the FIRE sector as suppliers of credit.

The British Growth Model

Similar to the United States, the UK's credit- and consumption-driven growth model relies on a permissive credit regime and liquid credit and mortgage markets, which generate aggregate demand and, in turn, economic growth through the housing and income-maintenance channels.

Housing Channel

Beginning in the 1980s, UK policymakers began to liberalize financial and mortgage markets, relax credit constraints, and subsidize homeownership by privatizing social housing in order to stimulate growth and promote asset-based welfare. The result was a debt-fueled growth model with "little incentive to save; instead, consumers were increasingly encouraged to think of their asset purchases as investments which they might cash in to fuel their consumption in retirement, as the state withdrew from pension provision, or in times of economic difficulty or unemployment" (Hay 2011, 7). After house prices and the economy collapsed during the 2008-2009 financial crisis, policymakers stimulated the housing channel to facilitate economic recovery. However, these demand-side policies contributed to soaring house prices in the context of low interest rates, leaving many households struggling to climb the property ladder amid growing concerns of overvalued housing markets.

The UK growth coalition consists of center-right and center-left political parties, housing-related interest groups, and homeowners. The financial sector and real estate industries, such as the City of London Corporation, UK Finance, the British Bankers' Association, or Home

Builders Federation, are key forces in support of easy access to household credit and housing growth (Barnes 2016). The Conservative Thatcher government did much to stimulate housing as a vehicle for growth as well as to create powerful home-owning voting constituencies (Oren and Blyth 2019; Wood 2017). Subsequent Labour governments, including New Labour, followed the path of "house-price Keynesianism" as a growth and asset-based welfare strategy (Hopkin and Shaw 2016; Watson 2010). As Oren and Blyth (2019, 607) put it: "each policy selection, from Lawson to Brown, put the interests of the financial sector first, deepened the dependency of the economy on credit growth [. . .] and further shut down alternative paths for growth."

In a far-reaching attempt to privatize housing and boost private ownership, the Thatcher government introduced one of its signature policies: the 1980 "Right to Buy" program. More than 2 million council housing units have since been sold to tenants at a subsidized, below-market price. In the 1980s, however, many households faced significant hurdles in obtaining mortgages in what was then a fairly restrictive mortgage system dominated by building societies, while local authorities' efforts to offer public loans to tenants resulted in deficits that worked against the government's austerity principles (Oren and Blyth 2019; Wood 2017). In response, the Thatcher government adopted a series of reforms to allow for more competition between commercial banks and building societies in the mortgage market, such as the 1986 Building Society Act. Much like the US savings and loans banks that were the backbone of the pre-financialized mortgage market, UK building societies lost their predominant role in providing mortgage funding as capital markets took over that role through mortgage securitization, which became a core pillar of the British macroeconomic regime (Wood 2017).

These policy actions paved the way for a property boom in which house prices rose by about 10% on average between the mid-1990s and 2007 (Hay 2011, 19). Similar to the United States, a low interest-rate environment—paired with deregulated mortgage markets, global

capital inflows, and investor appetite for mortgage bonds—contributed to the house price boom in the United Kingdom. Armed with increased net worth, UK households also tapped their home equity for credit-based consumption. According to Montgomerie and Büdenbender (2015, 394), home equity withdrawal constituted 4% of GDP between 2002 and 2007, with a peak of £63bn extracted in 2003 (a number that corresponds to 9% in consumer spending that year). When house prices declined by 20% and overleveraged households began to default on their mortgages, losses in household wealth constrained their abilities to borrow money and consume. As a result of mortgage defaults, toxic financial investments, and falling consumption, the UK's debt-fueled growth model was in crisis.

Once policymakers had stabilized the financial system, they turned to housing to promote economic recovery in the post-crisis years. The Cameron government adopted a series of measures absorbed under the 2013 "Help to Buy" program designed to stimulate housing markets and economic growth (Hilber and Schöni 2016). The program included an interest-free loan (for five years) of up to 20% (40% in London) of the home value for newly built homes, while households have to come up with a 5% down payment. This is an expansion of the 2011 "First Buy" program designed to help low-income, first-time buyers to make a down payment. The "Help to Buy" program also included a guarantee scheme in the amount of £12bn, in place until 2017, which protected lenders from mortgage default and encouraged them to give out £130bn in mortgages to first-time buyers and low-income households.[15] In response to the Covid-19 pandemic, the Johnson government initiated a new guarantee scheme capped at £4bn (up to £600,000 in home value) to encourage banks to extend mortgages with a down payment of

[15] HM Treasury, *Help to Buy: Quarterly Statistics* (September 2017), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/648018/H2B_MGS_Official_Statistics_Publication_-_September_17.pdf (last accessed Mar. 22, 2022).

only 5% in 2021. And it temporarily offered tax relief on the stamp duty holiday (a tax on property purchases) from July 2020 until June 2021.

While these demand-side measures have stimulated housing markets and asset prices, they also exacerbated existing supply-side problems and the lack of affordable housing among young and low- and middle-income households. The UK's current affordability crisis is also the product of a rigid land-use planning system (i.e., greenbelt protections, height restrictions, etc.) with few fiscal incentives to develop and an outsized role for local politicians and NIMBYs in the property development process (Hilber and Schöni 2016).

Income-Maintenance Channel

The UK's growth model also relies on the income-maintenance channel to support aggregate demand. Much like its American counterpart, the British growth model is heavily driven by domestic consumption, as Figure 8.4 shows. Yet, the strong reliance on consumption for aggregate demand makes the UK economy vulnerable to income shocks that affect the propensity and ability of households to consume. For the first time in nearly 30 years, UK households in 2017 collectively spent or invested on average around £900 *more* than they earned, turning households into net debtors (Office for National Statistics 2018).

A set of policy choices in the 1980s and 1990s paved the way for credit-based income maintenance to become part of the British growth model. The Conservative Thatcher and Major governments privatized and deregulated labor, finance, and product markets as well as several industrial sectors; they dismantled trade unions and Britain's already weak corporatist structures; and they retrenched many welfare state programs (Hemerijck 2013, 172–180). Guided by a new "workfare" rhetoric, the government tightened welfare eligibility criteria and coupled social

benefits more closely to past employment. At the same time, middle-income households were encouraged to opt into private supplemental pension plans and health insurance and to become homeowners with property that can serve as a private nest egg during retirement (Rhodes 2000). The "Third Way" policy strategy under New Labour made social benefits further contingent upon paid employment and turned their focus of the welfare state to more active labor market policies with the goal to enable re-entry into the workforce. These policy changes were embedded in a more fundamental shift in aggregate demand: replacing Keynesian demand management with what Crouch (2009) called "privatized Keynesianism," meaning that the economy is no longer stimulated by wage growth or government spending and public debt but by individuals borrowing money to maintain income in times of stagnant wages and waning welfare. After the Great Recession, the Cameron government embarked on a series of austerity policies that severely cut government spending across a wide range of services, including welfare benefits. In 2010, it introduced "universal credit," a new type of benefit for working-age people, which replaced six existing benefit categories (i.e., income support, income-based jobseeker allowances, income-related employment and support allowances, housing benefits, child tax credits, and working tax credits) by merging them into a single payment with reduced benefit rates.

Welfare retrenchment aggravated the more unequal distribution of economic growth in liberal market economies. To alleviate the fiscal impact of income shocks and rising expenditures, governments sought to appease and acquiesce voters by providing easy access to credit, such as through subprime lending and cheap unsecured credit cards (Barnes 2016). Together, these policy bundles culminated in the rise of an asset-based welfare state in which households address income shocks or additional expenditures through equity release from their homes. Households without sufficient access to real estate assets, however, have to rely on

unsecured forms of debt to address financial shortfalls. This asset- and debt-based welfare state has now become a cornerstone of a consumption-driven growth model, sustained by widely and easily available access to credit and critical to help households sustain aggregate demand.

Conclusion

This chapter examined credit-driven, consumption-led models and their underlying political coalitions in the United States and the United Kingdom. We identified two distinct channels through which these growth models generate domestic demand. First, the housing channel facilitates household borrowing and consumption through rising house prices and homeowners' wealth, which both increases households' propensity to spend money and improves their collateral against which they can borrow to finance consumption. Second, the income-maintenance channel strengthens aggregate demand by encouraging households to draw on credit markets to maintain their income and economic status when earnings stagnate, incomes drop, and personal expenditures rise in the context of limited welfare states. We showed that the (re-)production of these growth models hinges on a political coalition of policy demanders, which consists of producer groups in the FIRE service sector, asset owners, and center-left and center-right political parties, who all share a common policy agenda geared toward easy credit access and asset price inflation to generate consumption.

We conclude, necessarily speculative, that the future of these growth models depends on how policymakers address internal vulnerabilities related to financial stability and distributional inequalities. First, credit markets are instrumental in producing innovation and sustaining economic growth in these models; yet the very forces that bring about growth can also have destabilizing effects when financial actors engage in risk-taking behaviors, disrupt existing

markets with new financial innovations, or exploit regulatory loopholes in pursuit of profits (Morgan and Reisenbichler 2021). For their part, politicians have strong incentives to prop up credit markets for growth but fewer incentives to restrain financial capitalism when markets overheat. The financial crisis of 2008-2009 was a case in point, revealing the internal contradictions of credit-driven consumption: expanding credit produces growth but may also lead to asset bubbles and financial crises. Concerns about financial stability have hardly disappeared in the post-crisis world of ultra-low interest rates and asset-price inflation. While permissive credit regimes have helped facilitate credit access when interest rates were higher in the past, the current combination of permissive credit *and* ultra-low interest rates have contributed to soaring asset prices, a development that the Covid-19 pandemic reinforced. Policymakers have tightened financial regulations after the Great Recession but should be concerned about asset-price inflation that could result in future financial bubbles.

A second challenge pertains to the distributional implications of credit-driven growth models. Asset-price inflation during the past decades has benefited those with assets over those without and, therefore, has exacerbated distributional inequalities between the haves and the have-nots, as people without assets have not seen the same economic gains from stocks and property as those with assets (Fuller et al. 2020). In the case of housing markets, many younger, low-income, and minority households have been priced out of the property market, as their down-payment savings cannot keep up with house prices.

These inequalities pose important socioeconomic challenges, as concentrated income and wealth are found to be detrimental to economic growth, in part because rich households have a higher propensity to save than lower-income households (Economic Policy Institute 2017). The United States and the United Kingdom are among the most unequal societies in the OECD, with the top 10% income groups capturing 45.5% of total income in the US and 35.7% in the UK,

respectively (World Inequality Database, 2021). Inequality-related drags on demand have thus far been compensated by permissive credit and low interest rates, but this begs the question as to how much further the housing and income-maintenance channels can be pushed. And as rising inequality enables high-income groups to use the financial system to recycle a share of their growing wealth as loans to low- and middle-income groups, this can contribute to rising indebtedness and financial crises (Kumhof, Rancière, and Winant 2015).

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