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THE FINANCIALIZATION OF HOUSING IN EUROPE

"MY HOME IS AN ASSET CLASS"

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“Multifamily assets in Europe produce more stable income than in the US. But because of different regulations by country in Europe, direct investment can be difficult, so we participated in the Patrizia fund”¹

SHINHAN ALTERNATIVE INVESTMENT MANAGEMENT INC,
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SUMMARY

Over the past decades, institutional landlords – from real estate companies like the German giant Vonovia to private equity companies like Blackstone, or pension funds like ABP, the Dutch pension fund for government and education employees – have minted EUR 40bn of Berlin’s houses into assets that they rent out. This is roughly double the combined value of London’s and Amsterdam’s institutionally owned houses and it is a trend that has accelerated since the COVID19 pandemic. Europe’s residential real estate has become an attractive asset class for investors worldwide, supported by a range of government policies that are ostensibly aimed at homeowners: support for housing markets pushes up house prices and reduces affordability for citizens, whereas income support for rent-paying households ensures stable returns for investors.

In response, citizens across Europe – from Berlin to Dublin and Madrid – have mobilized to pressure governments into taking action. From rent controls to better regulation or even expropriation of institutional landlords, the political tide seems to be turning against a decades-old phenomenon known as the financialization of housing. A mega-trend across housing markets everywhere, it can be understood as (1) the disproportionate growth of housing finance relative to the underlying housing economy or (2) the turn to Housing as an Asset Class (HAC), captured by the increasing for-profit and financial orientation of actors in housing markets, and encouraged in Europe by a broad range of European-level financial legislation.

In this report, we explore the growing importance of institutional landlords such as Blackstone, focusing in particular on the mechanisms through which European legislation has accommodated their strategies to transform housing into asset classes. We use data from the private provider Prequin to map the complex financial ecosystem behind private equity landlords. We then propose a set of reforms that would de-financialize housing for the public good.

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¹ <https://www.kedglobal.com/newsView/ked202012170019>

KEY TAKEAWAYS:

- This study examines the growing footprint of institutional landlords in European residential housing. It identifies three reasons why institutional ownership deserves closer scrutiny, despite its relatively low share compared with private small landlords/owners: a) the *negative social impact* of institutional ownership; b) the *growing structural demand* for housing asset classes, with private equity/funds being the visible layer of a complex network of institutional landlords that includes banks, pension funds and insurance companies, endowments and wealth managers; c) the ability to *enlist the state in creating and de-risking housing asset classes* to meet that structural demand, both via (European level) regulatory regimes and macroeconomic policies.
- Institutional ownership threatens to accelerate the trends unleashed by the financialization of housing: deeper financial markets have not substantively increased either aggregate home ownership or housing supply, but instead have inflated house prices and pulled down rental yields. Housing affordability is a key problem across Europe's cities, alongside decline or stagnation of urban living space per person, more overcrowding, and higher burdens of housing costs, particularly in bigger cities and for lower-income households and for tenants.
- Opaque structures of institutional ownership: there is little granular detail on institutional landlords, whether from either public or private sources. For instance, data from the European Public Real Estate Association shows non-listed (private equity) funds owned 30% of the EUR 2.7 trillion real estate assets in the EU28², while EU listed property companies and REITs owned 20% in 2020. Insurance companies, pension funds and sovereign wealth funds directly owned another 16%, but also invested in private equity funds, public equity and other housing asset classes. However, institutional landlords do not separately report the value of the residential housing assets they hold.
- Recent European initiatives under the Capital Markets Union – including the Simple, Transparent and Standardized Securitization regime, the Securitization of Non-Performing Exposures and revisions to Solvency II capital requirements for insurance companies – will further ease the transition of residential housing from private into institutional ownership. This solidifies an uneven playing field, penalizing European citizens that cannot mobilize financial resources on a similar scale.
- Without a regulatory framework, the COVID19 pandemic will accentuate four fundamental drivers of housing as an asset class:
 - under cyclical pressures to address COVID19-related increases in public debt, Member States might further withdraw from providing affordable housing, beyond the (national variations in) Recovery and Resilience Plans' investments. *The revision of the economic governance framework should avoid a return to austerity policies and should encourage the opposite: increased public investment in social housing.*
 - Member States might again rely on institutional landlords as a countercyclical force to clean up burst housing bubbles, as institutional landlords can easily absorb non-performing mortgage loans, often with preferential support from the state (e.g. post-2008 Spain, Ireland or Greece).
 - build-to-rent: the growing, often direct, involvement of private investors in the development of new rental housing, replacing housing companies.

² <https://www.inrev.org/system/files/2021-04/INREV-EPRA-Real-Estate-Real-Economy-2020-Report.pdf>

- macroeconomic (fiscal and monetary policies), regulatory and housing policies that support house price inflation and institutional ownership. *In particular, when developing a new Social Taxonomy, the Commission and co-legislators should ensure that it prevents any social washing of housing assets held by institutional investors.*

KEY POLICY RECOMMENDATIONS TO REGULATE INSTITUTIONAL LANDLORDS

1. **A Sustainable Institutional Housing framework: a social-washing-proof Social Taxonomy to anchor mandatory disclosure and regulation of institutional landlords**

- Carve out special provisions for Housing in the Social Taxonomy.

Given the importance of Housing and the precarious state it finds itself in across most Member States, housing should be treated as a special asset class within the Social Taxonomy plans of the European Commission. The aim is to both improve *transparency* across the board and to *regulate* institutional landlords, while minimizing social washing. A socially-washed Taxonomy would allow Blackstone to market its residential funds as eligible under Social Taxonomy, even if its practices as an institutional landlord worsen living conditions for its tenants. To minimize social washing, we propose the following two housing pillars:

- *Apply both the vertical and horizontal dimensions to housing assets.* In the Taxonomy proposals, the horizontal dimension focuses on the processes and practices of companies that issue housing assets, while the vertical dimension defines adequate living standards via an Availability, Accessibility, Acceptability and Quality (AAAQ) framework rooted in the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights. The vertical dimension is critical to minimize social washing.
 - *Create a three-bucket AAAQ approach* in the vertical dimension that distinguishes clearly between the high, struggling and poor performance of housing assets. To avoid social washing, establish a high performing/struggling/poor benchmark for each AAAQ criteria and require the simultaneous fulfilment of the four benchmarks within the bucket.
- Develop and implement a *mandatory disclosure regime* for institutional investors with exposure to housing asset classes.

The Social Taxonomy is (thus far) intended for a subset of investors that focus on social impact. We propose mandatory disclosure for all institutional landlords using the Social Taxonomy in the approach outlined above. Mandatory disclosure would not be too onerous given the wide use of asset-level disclosure in the private GRESB ESG standards.

- Develop and implement an escalation-based *regulatory regime* for institutional investors with housing asset classes on their balance sheet.

This aims to increasingly align institutional landlord practices with housing as a human right. Using the Social Taxonomy framework proposed above, (i) first remove all regulatory privileges conferred in EU legislation for the past decades to all but the highest performing (positive tilt), (ii) set

out incentives and a timeline for aligning HAC portfolios with the high-performance benchmark, including progressively tighter penalties (negative tilt).

2. A European Housing Fund that works as a:

- Countercyclical force to ring-fence the collapse of housing asset bubbles that typically result in the transfer of housing units from small private or public ownership into institutional portfolios. This curtails the erstwhile reliance of Member States on institutional investors as a countercyclical mechanism during periods of crisis, and the use of public bad banks as a conveyor belt for distressed housing assets passing from commercial banks to institutional portfolios.
- Structural force, to raise financing for public investment in social housing.

3. A Housing Red Flag Rule on new European-level regulatory initiatives: this requires the constellation of European regulators to ensure that new regulatory initiatives do not inadvertently de-risk housing asset classes for institutional landlords. The Rule would ensure that housing asset classes are ring-fenced from any regulatory easing initiatives.

4. An extended macroprudential mandate for European central banks to react to house price inflation through the tighter, but socially just, regulation of mortgage lending following examples from Sweden and New Zealand.

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HOUSING AS AN ASSET CLASS

THE AGE OF THE INSTITUTIONAL LANDLORD

Institutional ownership of housing has become increasingly contested. Just in 2021, in Europe, Spain and Ireland introduced restrictions on institutional investors in housing markets (directly and via higher taxes), while Berlin residents voted to expropriate big landlords such as Vonovia and Deutsche Wohnen. The Biden Administration plan to increase affordable housing supply denounced large investors for crowding out individual homebuyers. It noted that large investors had purchased one in six homes in the second quarter of 2021 (and in some cities one in four) and announced measures to restrict institutional investors' access to US housing markets.³ Not incidentally, in October 2021 Blackstone, the world largest institutional landlord, reported the best ever profits and inflows in its history⁴.

The growing concern over institutional landlords captures an important trend that has accelerated with the COVID19 pandemic and ongoing low interest rates on safe assets: an institutional appetite for Housing as an Asset Class. It is on this recent dynamic, the incoming age of the institutional landlords, that the study zooms in. While we recognize the importance of small-scale private (rental) ownership, we do not focus on it for two reasons. First, institutional ownership has a distinctive political economy, which we elaborate below. Second, we are interested in, and map here, a neglected aspect of institutional ownership: the financial regulation that allows, or in some cases encourages, investors to mint new housing assets. This is particularly relevant in the European Union. There, in contrast to national-level rules that organize private landlords, European financial regulation has accommodated, and (often unwittingly) encouraged, the growing footprint of institutional investors in residential housing.

FROM FINANCIALIZATION OF PRIVATE HOUSING TO THE RISE OF INSTITUTIONAL LANDLORDS

The financialization of housing is a complex and evolving phenomenon. Originally, the first wave of financialization literature explored the build-up of private mortgage credit through the rise of home ownership and the introduction of new securitization techniques (Aalbers 2008; Rolnik 2013), as US subprime credit featured central stage in the run-up to the Global Financial Crisis of 2008 (Schwartz 2009). That research focused predominantly on countries with the most finan-

³ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/01/fact-sheet-biden-harris-administration-announces-immediate-steps-to-increase-affordable-housing-supply/>

An estimated \$87bn of institutional money went into America's rental-home market during the first half of this year, according to Redfin, a residential brokerage. Around 16% of single-family homes for sale were bought by investors in the second quarter, up from more than 9% a year earlier.

<https://www.economist.com/finance-and-economics/2021/09/25/beware-the-backlash-as-financiers-muscle-into-rental-property>

⁴ <https://www.ft.com/content/10de97da-30e9-4c92-a3a7-5da251706c3e>

cialized housing systems (Fuller 2019), i.e. the US, the UK, but also the Netherlands (Aalbers et al. 2011; Engelen and Glasmacher 2018), Spain, and the European periphery (Bohle 2018). It also noted that in Scandinavian countries, the income security provided by collective wage negotiations and generous welfare constituted a route towards higher mortgage debt (Anderson and Kurzer 2019; Johnston et al. 2020; Stamsø and Tranøy 2020).

Overall, financialization has turned into a “variegated” phenomenon with different institutional and country trajectories (Aalbers 2017), in which private finance enters the housing sphere while non-financial firms, private households and state housing actors become increasingly dependent on financial markets and act more and more financialized. This includes private households buying speculative secondary real estate (Seabrooke 2010) and buy-to-let (Aalbers et al. 2020), short-term rentals (Clancy 2020; Cocola-Gant and Gago 2019), as well as non-profit housing associations becoming more profit-oriented such as in the Netherlands (van Loon and Aalbers 2017) or being privatized outright such as in Germany (Wijburg and Aalbers 2017). “Generation Rent” became a focus for institutional investors across many countries, particularly those with declining home ownership rates and booming house prices such as Ireland, the UK, Spain and the Netherlands (Byrne 2020).

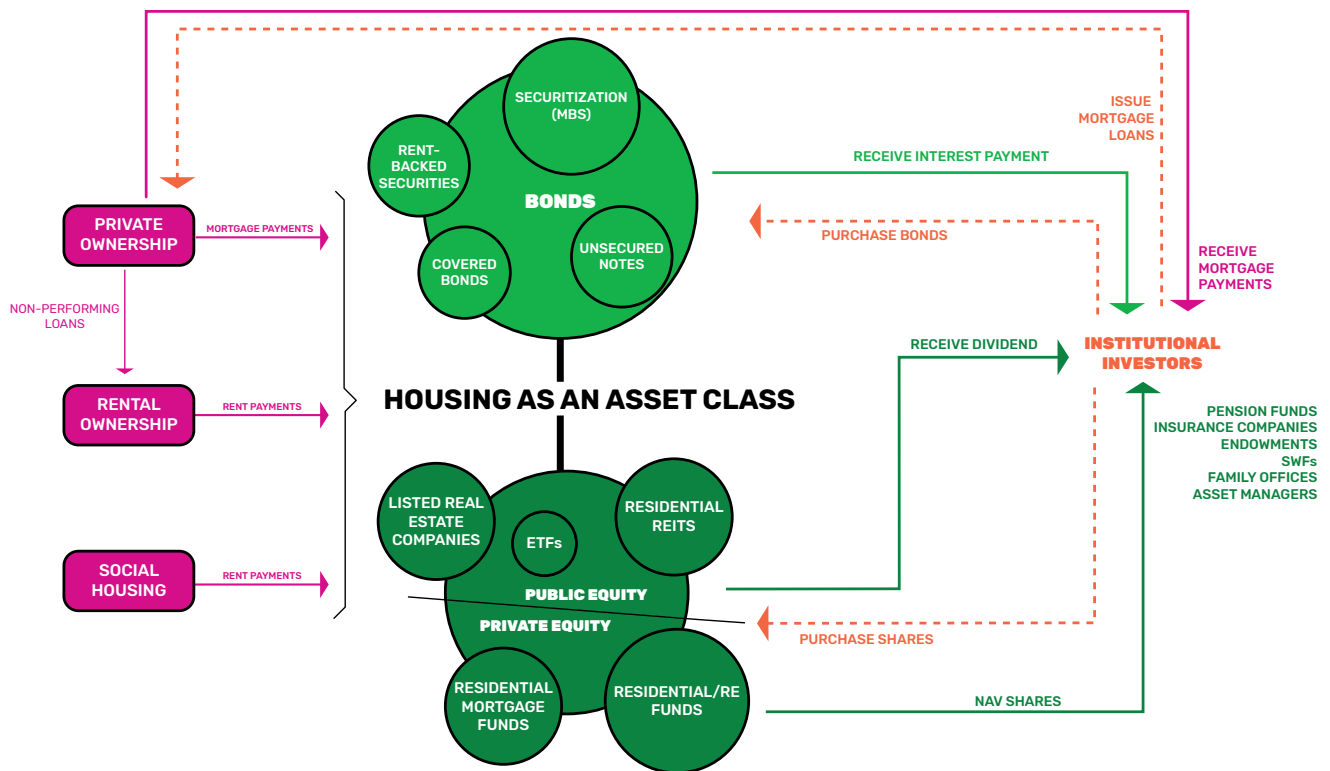
This study explores what the literature describes as Financialization 2.0 – the growing footprint of institutional investors in housing, such as Blackstone. Wijburg et al (2018) characterize Financialization 2.0 as a switch in institutional business models, from private equity and hedge funds that use housing for speculative purposes (buying low, selling high, increasing rents without maintenance) to institutional landlords that manage portfolios of residential housing, generating both rental income and capital gains as the market value of houses in ownership increases (Fields and Uffer 2014; Wijburg et al. 2018).

But we depart from the distinction between purely speculative and long-term investment to examine a variety of institutional strategies to construct housing as an asset class (HAC). HAC refers to residential housing in institutional/corporate – rather than private – ownership. It does not have a specific temporal dimension in that institutional landlords – be them listed real estate companies, private equity funds or Real Estate Investment Trusts (REITs) – can acquire and sell housing assets depending on a series of strategic considerations that include relative yield, regulatory constraints and individual business models. As we document in Chapter 3, residential portfolios may often change institutional owners across private equity funds, REITs or listed RE companies, but essentially, houses *remain* in institutional ownership.

Housing as an asset class involves residential housing – be it in private ownership, rental ownership or social housing – providing a stream of revenue to institutional investors (see Figure 1.1), including pension funds, insurance companies, endowments or managers of individual wealth (high-net worth individuals). Consider an insurance company. It can be exposed to residential housing via several financial instruments: it can lend directly through residential mortgages, it can purchase fixed income instruments (bonds or money market instruments) issued by other investors to finance their portfolio of residential housing, it can purchase shares issued by real estate companies or REITs, and it can invest in private equity real estate funds⁵.

⁵ For both private equity and REITs, commercial real-estate (offices, shopping malls, business properties, etc.) are typically more important than housing as an asset class, but there are a couple of dozen REITs uniquely devoted to residential real estate.

FIGURE 1.1: HOUSING AS AN ASSET CLASS



THE POLITICAL ECONOMY OF INSTITUTIONAL LANDLORDS

There are three distinctive elements of a political economy of institutional landlords:

- Adverse consequences of large institutional landlords for tenants, housing maintenance and neighborhood development.

While the inflow of large institutional funds into housing can potentially increase the supply of professionally managed rental units (Pawson and Milligan 2013), there is a growing urban geography literature that rather points at the potentially adverse consequences for tenants, housing maintenance and neighborhood development. Even though many of these studies were conducted in US cities, they might foreshadow the housing conditions that European cities might soon be facing. First, studies across a variety of cities point to the adverse effects of disruptive eviction practices (Akers and Seymour 2018; Teresa 2019). Second, studies on both US and European cities identify negative consequences for housing affordability (Christophers 2021; Fields and Uffer 2014; Garriga et al. 2021). The negative impact on housing affordability is also the main finding of the recent report of the EU-Commission on financialization in seven European cities (EU-Commission 2020). With the displacement of lower-income tenants, who are often from minority groups, including as a result of renovation work (Baeten et al. 2016), gentrification changes the character of neighborhoods and reinforces existing urban inequalities (Aalbers 2019; Chelcea et al. 2015). Another adverse consequence arises when institutional investors hold back the supply of urban land, thus increasing housing shortages and driving up prices, as documented in relation to Ireland (Waldron 2019). It is no coincidence that the UN special rapporteur on adequate living conditions expressed

concerns to the Spanish and Irish governments that the presence of transnational investors such as Blackstone have been associated with evictions, rental overburdens and housing shortages.⁶

The increasing presence of institutional investors in urban residential real estate has been associated with adverse consequences for basic housing provision by both academic literature and civil rights institutions.

- Growing structural demand from institutional capital that are chasing new/stable return asset classes, including residential housing.

Although private equity landlords are typically the focus of political contestations, they are the visible layer of a complex ecosystem of institutional housing ownership. This includes banks, private equity firms and funds, REITs and real estate companies, institutional investors (insurance companies, pension funds, family offices and endowments, cash-rich multinational corporations, Sovereign Wealth Funds) and asset managers, which we capture under the umbrella term institutional capital. Banks and other specialized institutions (mortgage banks, building societies, savings and loans institutions, Bausparkassen, cajas) extend mortgage loans, securitize mortgage loans to issue Mortgage Backed Securities (MBS) that trade in capital markets, and finance private equity firms, funds and real estate companies. Insurance companies also provide mortgage loans and were historically important in primary-mortgage markets, but are now mostly important in secondary-mortgage markets.

It is by considering the global portfolio glut – the institutional capital chasing yield, including in alternative assets such as real estate – that the scale of institutional appetite for housing becomes immediately apparent. In a manner similar to the banking glut of the 2000s, the global portfolio glut captures the rapid accumulation of institutional capital (Gabor 2021), termed by some as the age of asset management or asset management capitalism (Braun 2021). For instance, BlackRock, the world’s largest asset manager, manages USD 10 trillion on behalf of institutional investors, a considerable share of the USD 120 trillion managed by the top 500 asset managers worldwide⁷. Asset managers invest in bonds, equity, ETFs and alternative asset classes. Take BlackRock: of its USD 10 trillion assets under management, it allocated USD 256bn to alternative asset classes, including real estate (commercial and residential), private equity, hedge funds, natural resources, infrastructure and private debt.

Since alternative assets are created in private markets, data is scant. In this study, we rely extensively on the Preqin private database, which offers one of the most detailed, albeit incomplete, overviews of real estate investors, funds and large transactions in Europe. Preqin is a commercial data analytics company that surveys institutional investors in alternative assets classes, including real estate. It provides data on the size of institutional real estate investments outstanding and the size of most large real estate portfolio deals. Missing data and the focus on large investors and deals entails that the overall numbers we quote below need to be interpreted as lower-boundary estimates.

⁶ <https://www.ohchr.org/EN/Issues/Housing/Pages/FinancializationHousing.aspx>

⁷ <https://www.thinkingaheadinstitute.org/news/article/top-500-managers-see-assets-hit-record-119-5-trillion/>

Thus, in August 2021, Prequin listed more than 4000 institutional investors⁸, collectively managing USD 136 trillion, of which USD 3.6 trillion targeting European real estate. Of these, 1325 investors - with USD 44 trillion AUM - held residential assets in their RE portfolios. The private equity company Blackstone, the world's largest institutional landlord, managed around USD 730bn, of which USD 230bn was allocated to real estate in September 2021. In contrast, BlackRock only managed 10 real estate funds, with total assets around USD 10bn. The portfolio glut is thus increasingly channeled through private markets: by 2021, pension funds, mutual funds, insurance companies and other investors together lent around USD 7 trillion to private equity funds so that they could target alternative asset classes, including residential housing.

The growing portfolio glut reflects several macrofinancial and political choices of the past 30 years (Gabor 2020). On the fiscal side, the weakening capacity of the state to tax multinational corporations and the wealthy allows these entities to pour their cash into institutional investment vehicles, while the withdrawal of the welfare state from public health and state pensions feeds pension funds and insurance companies. On the regulatory side, the substantive efforts to regulate global banking after the collapse of Lehman Brothers have not been matched by similar policies to regulate systemic institutional investors, despite initial commitments to the contrary. This has encouraged reallocations towards institutional capital. On the monetary side, the unconventional monetary policies introduced post-Lehman Brothers have encouraged investors to search for yield outside 'traditional' assets like government bonds, and to move into new asset classes, including housing.

Even if/where the share of institutional landlords is still relatively low compared to small rentier landlords, it is likely to grow in the future, powered by the portfolio glut.

- Ability to profit from housing market crises and to enlist the state in de-risking housing asset classes.

Institutional investors can acquire residential housing by participating in the privatization of public housing stocks, by absorbing non-performing mortgage loans from private lenders or public bad banks in the wake of housing crises, by purchasing larger public housing portfolios and by building new housing stock through build-to-rent schemes (Aalbers et al. 2020; Christophers 2021). As we document below, the share of public housing units has largely been in decline in the great majority of countries because fewer new public housing units were constructed (in most European countries), because sitting tenants received a right to buy (such as in the UK or Eastern European countries), or because institutional investors bought larger housing portfolios (e.g. in Germany in the 2000s).⁹ The different providers of social housing units have come under pressure, either because subsidies have been cut (Aalbers et al. 2017) or because their municipal owners came under the pressure of austerity (Van Duijne and Ronald 2018). As a result, social housing has not only been in decline in most countries but has also been targeting narrower parts of the population (Alves and Andersen 2015; Kährlik and Köre 2012; Ogradowczyk and Marcińczak 2021). This has even happened in some of the social housing provision regimes (Grander 2017; Hoekstra 2017; Turner and Whitehead 2002) that were formerly the most universal, a phenomenon also known as the residualization of social housing (Angel 2021).

⁸ this figure includes banks with real estate investments

⁹ See the literature on these topics (Clapham 1996; Hegedüs 2012; Held 2011; Murie 2016)

Since they have scale and purchasing power that cannot be matched by small private landlords, institutional investors are uniquely placed to take advantage of collapsing housing bubbles. First, they can directly purchase portfolios of non-performing mortgages from commercial banks and recover the housing collateral (Immergluck 2015). In the US, the state sold institutional investors both government-owned foreclosed homes (Fields 2018) and distressed, government-owned single-family home-loans (Greenburg 2017). In Europe, institutional landlords benefitted from the distinctive political preferences for fiscal austerity that had shaped the set-up and functioning of bad banks. Under the political pressure of fiscal austerity, governments used institutional investors as a countercyclical tool to manage the public costs of cleaning up commercial bank balance sheets. Rather than retaining the housing collateral in public ownership, governments in Greece, Ireland, Spain or the UK chose to organize bad banks (SAREB or NAMA) as a conveyor belt from private distressed ownership to institutional ownership, with the state typically selling housing units at preferential prices to institutional landlords (Wijburg et al 2018). As we document in Chapter 3, the top 3 buyers of non-performing loans in Europe throughout 2015 to 2017 were the private equity companies Cerberus, Blackstone and Fortress.

But the state supports the ecosystem of institutional landlords beyond their role as countercyclical force in the aftermath of collapsing housing bubbles. In financial capitalism, the state functions under a new imperative: to de-risk new asset classes for institutional investors (Gabor 2021), including housing (see Christophers 2021). The political narrative is that public resources alone cannot deliver the required investments in climate, health, education, infrastructure and indeed housing, so policy makers should instead mobilize private finance for these public goals. Mobilization of private finance requires the state to derisk new asset classes if the risk/return profile does not match private investors' preferences or their regulatory requirements. Such public interventions involve both *regulatory de-risking* – removing regulatory barriers that prevent investors from creating and investing in new asset classes (as the European Commission intends to do via the Social Taxonomy) – and *macro de-risking*, which redirects fiscal resources or monetary policy interventions to align the risk/return profile of new asset classes with investor preferences. When applied to housing assets, we show in this report, regulatory de-risking has involved a wide range of policies from national-level favorable tax regimes to the European-level weakening of regulatory requirements for housing asset classes (notably via the Capital Markets Union). In turn, fiscal and monetary de-risking encompasses a range of macroeconomic policies supportive of house price inflation, in what Ryan Collins (2021) terms a finance-housing cycle.

In Europe, the European Commission's work on the social taxonomy can easily become a regulatory de-risking opportunity for institutional investors if it allows them to social wash housing asset classes. This is particularly important given the public controversies around the adverse consequences that institutional ownership has for housing as a human right. So far, institutional landlords have come to rely on the Global Real Estate Sustainability Benchmark to monitor the Environmental, Social and Governance performance of property companies, REITs, and developers.¹⁰ But GRESB suffers from a series of problems that broadly characterize private ESG ratings, including scope for social washing through a ratings methodology focused on funds rather than assets, through questionable metrics to assess the environmental impact of the assets and through the manipulation of ESG scores (with the help of ESG consultants). The Social Taxonomy could be an

¹⁰ By 2020, 100 institutional investors with USD 22 trillion AUM were relying on ESG metrics for real estate assets.

opportunity to provide a public framework for both assessing the social impact of the transformation of housing into an asset class and putting in place a regulatory regime that aligns institutional landlords with a human rights perspective.

Institutional landlords have grown a substantive footprint in residential housing with the help of the de-risking state. The growing turn to ESG ratings, and the negotiations around a Social Taxonomy in Europe, may perversely accommodate further social washing (institutional landlords claiming positive social impact) while enabling resistance to a regulatory regime anchored in housing as a human right.

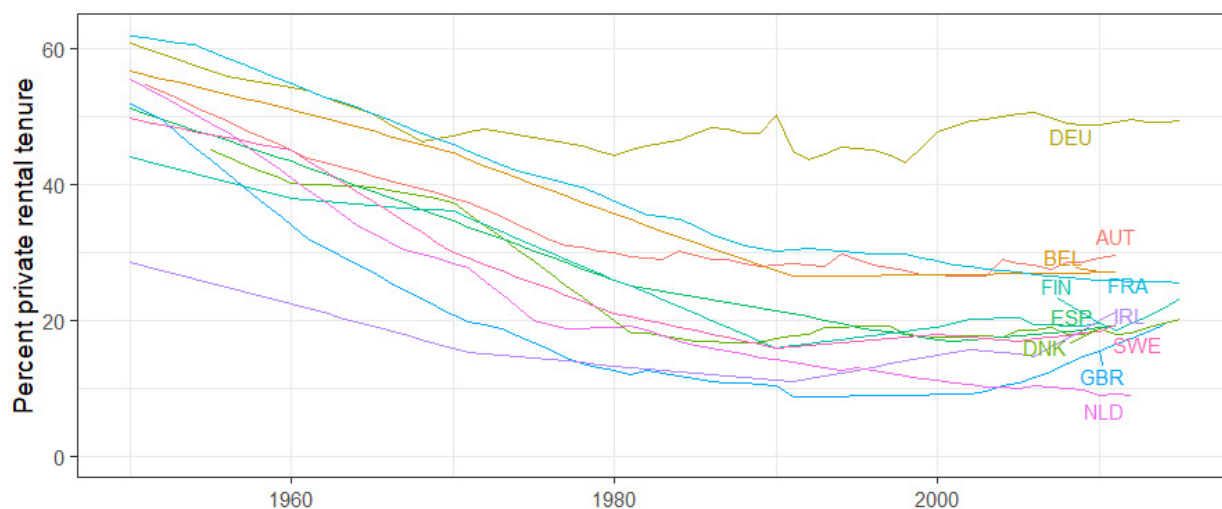
HOUSING AND MORTGAGE MARKETS IN EUROPE

EUROPEAN HOUSING MARKETS - THREE BROAD SEGMENTS

Housing markets in Europe can broadly be divided into three distinct market segments: the owner-occupier sector, private tenancy and some form of social housing, i.e. households can either own the main residence they live in, they can rent it from private landlords or they can rent it from an institution offering below-market rents orchestrated through different ways of government support.

Up until the post-WWII era, private tenancy was the dominant form of tenure in urbanizing and industrializing countries. This was followed by a period of significant decline, as Figure 2.1 shows, which was then reversed in more recent decades, a phenomenon also referred to as “Generation Rent” (Lund 2013). Mirroring the other two tenures combined, the decline of private rentals to low levels has not been homogeneous across countries, but particularly pronounced in English-speaking and Scandinavian countries, while less pronounced in the German-speaking ones. Figure 4 below shows the residual category that private rental housing otherwise occupies among the households of the EU, particularly in Eastern European member states.

FIGURE 2.1: HISTORICAL DECLINE AND RECENT COMEBACK OF PRIVATE RENTAL HOUSING

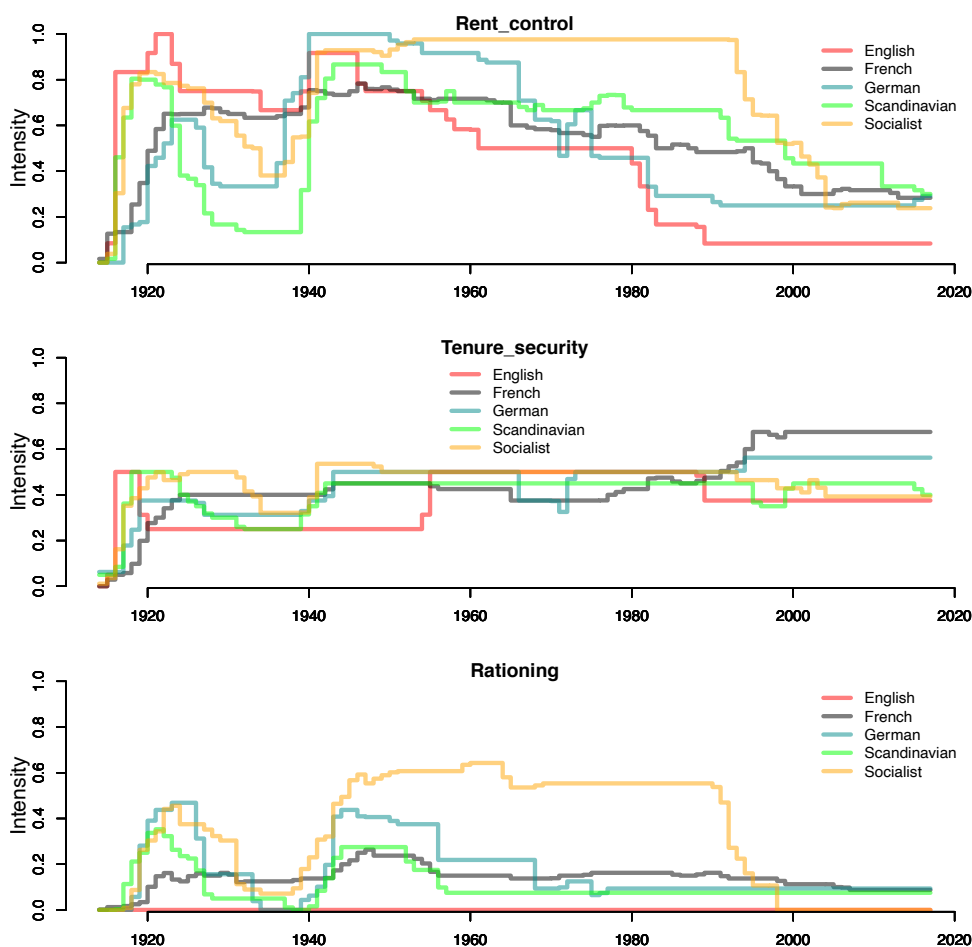


Source: Private rentals are calculated as residuals of previous social-housing and ownership shares (Kholodilin et al. 2022)

Private tenancy is also accompanied by different regulatory styles across Europe, as Figure 2.2 shows for countries grouped by legal origin (Kholodilin 2020b). It can be regulated along three dimensions: prices can be free or regulated (rent laws), tenants can be freely evicted or protected (tenancy security) and rental units can be freely offered on markets or distributed by state preferences (allocation restrictions such as rationing). A long-run dataset (remain-data.org) has coded the existence of laws into a standardized index ranging between 0 and 1 along these three dimensions for almost all countries worldwide (cf. Figure 2.2).

The grouping of European countries by legal origin shows a relatively clear hierarchy of regulation traditions, the early war times excepted: Anglophone countries have the least tenant-friendly regime, whereas both German and Scandinavian countries intervene much more strongly in the tenancy contract. Most countries have implemented some sort of security of tenancy and regulate price increases. In recent times, there has been a comeback of stricter price regulation of even nominal price levels and certain restrictive allocational measures on the subnational level, for instance in Germany (Berlin) or in Spain (Catalonia). The introduction of stricter rent controls is back on the policy agenda in other countries as well. Exceptional Corona-related measures such as rent moratoria and eviction controls are reminiscent of measures last seen during wars (Kholodilin 2020a).

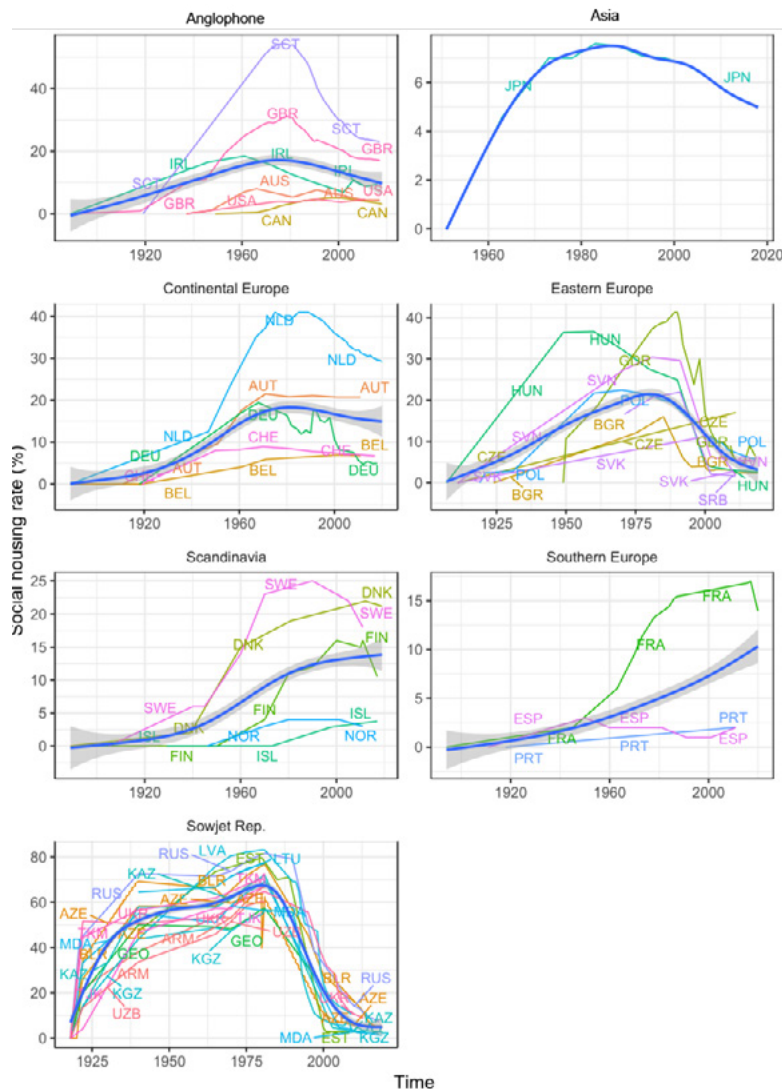
FIGURE 2.2: REGULATION OF RENT PRICES, TENANCY SECURITY AND HOUSING RATIONING BY LEGAL ORIGIN



Source: remain-data.org (Kholodilin 2020b); each regulation index is standardized between 0 and 1, where 1 is the strictest and 0 no regulation; the upper panel reports the intensities of rent price regulation, the middle panel the degree of tenant protection measures and the lower panel restrictive measures of free market allocation (e.g. rationing)

Private tenancy was first pushed back by the entry of state-supported rental housing in almost all European countries in the two post-war periods, when states became major providers of rental housing themselves or through non-profit associations of different kinds (Harloe 1995). Figure 2.3 shows how central and Northern European states created a social housing stock totaling up to 40% of the entire housing stock during the peak years of the 1970s (Kholodilin et al. 2022). Whereas the nationalization of much of the urban housing stock led to even higher social housing rates in Eastern European countries, Southern Europe never developed significant numbers of public rental units. With the end of the post-war reconstruction boom and strained government budgets since the 1980s, the overall trend of social housing is one of decline. The large-scale privatization of Eastern European public housing stock made this a radical decline after 1990 (Stephens et al. 2015), whereas the decline was more continuous elsewhere: in some countries such as Germany, the social housing stock declined to 4% whereas in other countries such as the Netherlands or France, 20% or more is still social housing stock.

FIGURE 2.3: RISE AND FALL OF SOCIAL HOUSING¹¹



Source: (Kholodilin and Kohl 2021). see for more visualizations here: <https://dataverse.shinyapps.io/socialhousing/>

¹¹ Country abbreviation follow the iso3-standard: SCT = Scotland, GBR = Great Britain, IRL = Ireland, AUS = Australia, USA = United States, CAN = Canada, JPN = Japan, NLD = Netherlands, AUT = Austria, DEU = Germany, CHE = Switzerland, BEL = Belgium, HUN = Hungary, BGR = Bulgaria, CZE = Czech Republic, SVK = Slovakia, POL = Poland, SRB = Serbia, SVN = Slovenia, SWE = Sweden, DNK = Denmark, FIN = Finland, NOR = Norway, ISL = Iceland, ESP = Spain, FRA = France, PRT = Portugal

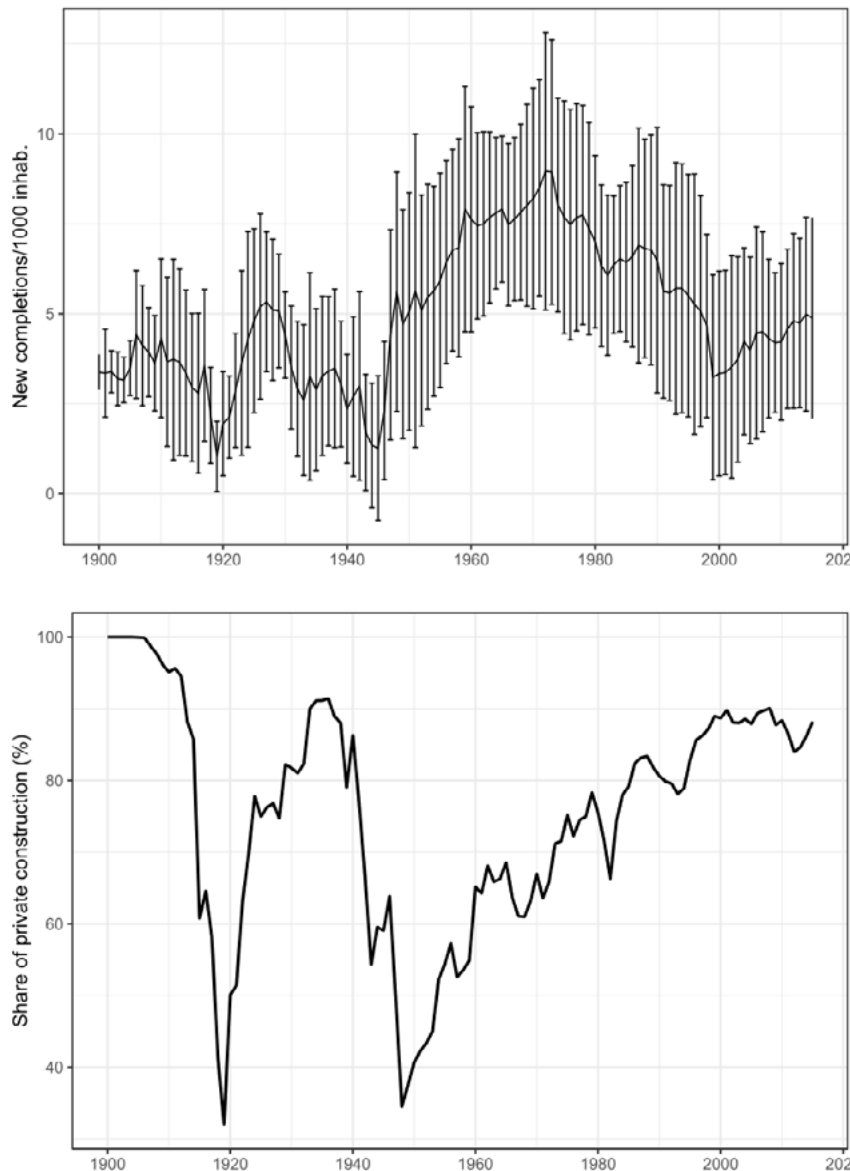
This overall declining trend in social housing also becomes visible in the new construction of housing units (Kohl 2020). Their number, relative to the total population, has been decreasing ever since the height of the construction boom of the 1970s (cf. Figure 2.4). Over the same time period, the share of private construction has continuously increased at the cost of social housing construction, which could amount to over one third in the post-war era and currently lies around 10% on average. It is not just that total social housing stock is currently at a low. Extrapolating current construction trends would also imply a further future decline.

While there are many factors at work behind the overall stagnation or decline of social housing, one is particularly European and related to EU competition law (Elsinga and Lind 2013). Generally, social housing and tenancy regulation are still inherently national domains of policy-making in countries of the European Union with no direct EU competences and no European social housing model. There is a lack of “positive integration” (Scharpf 1998) of housing policies at the European level: rather than positive integration, EU competition policies can even have a detrimental effect on social housing provision in certain country contexts.

The Swedish non-profit housing sector is such an example (Bengtsson 2013). Traditionally, ever since the post-WWII era, Swedish social housing policy has focused on a growing sector of non-profit public rental units that are municipally organized. They have proven to be relatively resilient despite the general retrenchment trends shown in section 2 (Blackwell and Bengtsson 2021). Together with a system of corporate rent-setting that determines rent levels throughout the housing stock, they make up an important element of housing provision in Sweden.

In 2002, the Swedish real estate association accused the Swedish state of illegal state support for the social housing associations on the grounds that it distorted free competition on the rental market, given that all housing providers had to follow the rent-setting regime (Bengtsson 2013: 176). This triggered several rounds of investigations from the EU Commission, followed up by further complaints from the real estate sector in Sweden. While rent setting and social housing were first viewed as a purely domestic issue, it soon became clear that the EU competition laws could be applied to Swedish social housing providers. In consultation with the Swedish tenant union, the government reacted by passing a new law on social housing providers which obliged them to show a stronger commercial orientation, while still following the general rent-setting system. With this law in place in 2010, the Swedish real estate association withdrew its complaint, while social housing providers have ever since been more assimilated to a private market actor (Bengtsson 2013). The Dutch social housing provider was under similar EU pressure and subsidy programs were reduced to target groups below certain income limits (Elsinga and Lind 2013).

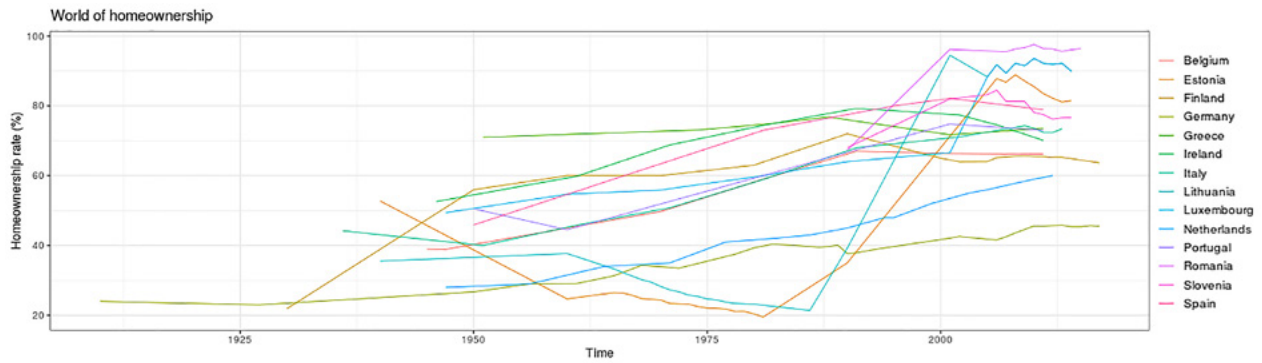
FIGURE 2.4: **CONSTRUCTION CYCLE (ABOVE) AND SHARE OF PRIVATE CONSTRUCTION (BELOW)**



Unweighted averages and standard deviation. Source: (Kohl 2020)

The second reason for the decline of private and thus also social tenancy is the almost universal trend of rising home ownership throughout countries (cf. Figure 2.5), which crowded out the two other housing segments (Kholodilin and Kohl 2021). The rise is again most dramatic in Eastern European countries which simply sold existing state or cooperative housing units to sitting tenants (Turner 1997). This happened to almost the entire housing stock in South-eastern European countries and was slightly less radical in the Visegrad states, where other tenancy forms have persisted. The rising trend was more gradual elsewhere: Southern-European countries exhibited the steepest curves since they converted most private rental stock into owner-occupied apartments (Voigtländer 2009), reaching similarly high home ownership rates to Eastern European countries (Stephens et al. 2015). The rise was less pronounced in Scandinavian countries and least pronounced in Germany and Austria, which have the lowest home ownership rates in the EU.

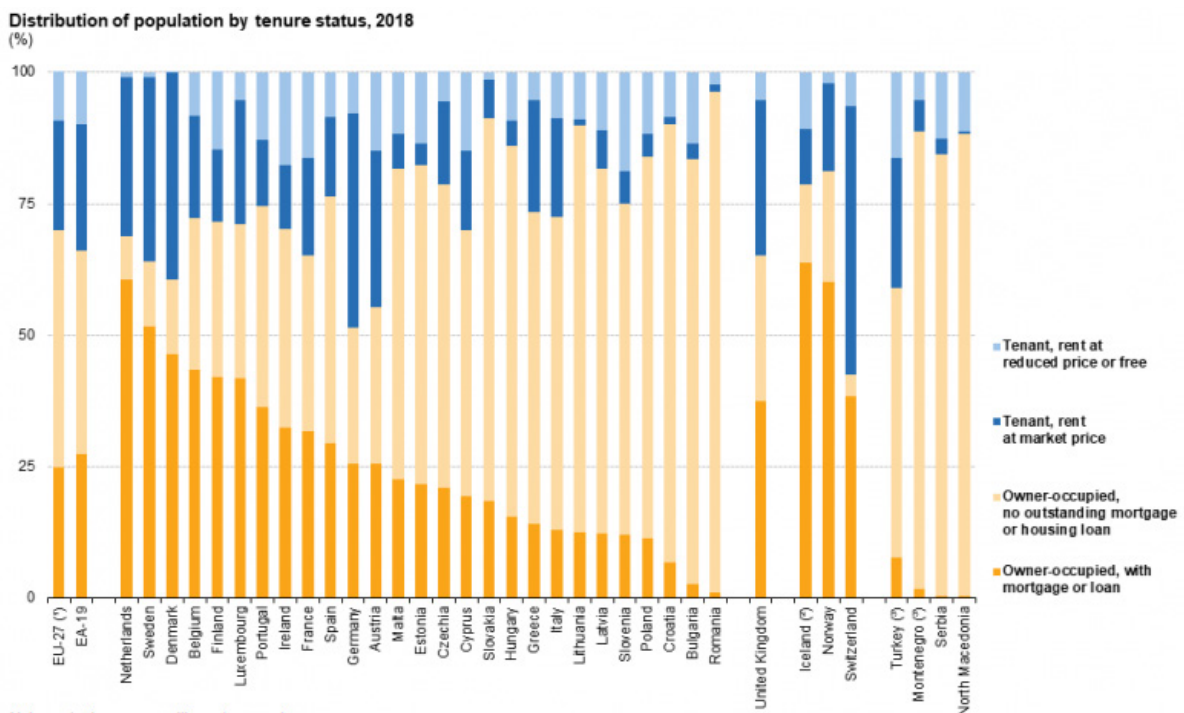
FIGURE 2.5: THE RISE OF HOME OWNERSHIP IN EUROPE



Source: (Kohl 2017), see for more visualizations here: https://sebastiankohl.shinyapps.io/Home_ownership/

These historical trajectories leave the European Union with a diversity of housing-tenure types among its member states, as summarized in Figure 2.6. First, there are the super-home ownership countries of (south-)eastern Europe with almost no alternative form of tenure other than residual (Stephens et al. 2015). In stark contrast to their Western European peers, the share of indebted homeowners is also very limited in these countries (Bohle 2018). Southern European countries share the high home ownership rates, but have many more indebted homeowners in this group (Allen 2006). They also offer at least some alternative forms of tenure. North-Western European countries (Scandinavia and Benelux) have lower home ownership rates, but the highest level of indebted homeowners. They have broadly realigned with Anglophone countries (Fuller 2019). Finally, German-speaking countries have the largest remaining private rental sectors with relatively conservative developments of household indebtedness (Kofner 2014).

FIGURE 2.6: DISTRIBUTION OF THE POPULATION BY TENURE STATUS BY 2018



Note: ranked on owner, with mortgage or loan.

(*) Estimates.

(†) 2016.

(‡) 2017.

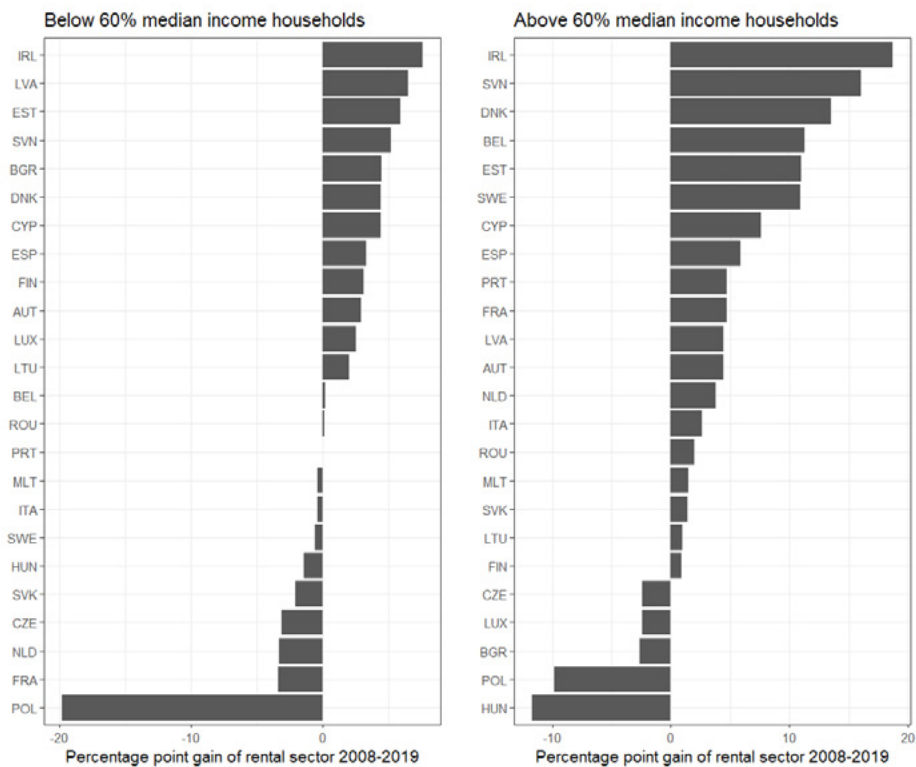
eurostat

Source: Eurostat¹²

12 [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_tenure_status,_2018_\(%25\)_SILC20.png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_tenure_status,_2018_(%25)_SILC20.png)

The most notable change in the recent decade has been the comeback of the private rental tenure, pushed by housing affordability problems in big urban centers (Aalbers et al. 2020), the lack of social housing and home ownership unaffordability, as well as by investors seeking new forms of asset classes in times of zero interest rates since house price appreciation and even declining rental yields are still attractive in comparison to government bonds. Except in a few Eastern European countries, more households had a private tenancy in 2019 than in 2008 in almost all European countries (cf. Figure 2.7), a trend anticipated only by the UK in the 2000s (Whitehead et al. 2012). The increase is particularly visible for poor households below the 60% median income line: in Ireland almost 19% of poorer households entered the private rental sector, with double digit-figures also in Sweden, Denmark and Belgium. But rental tenure increases were not restricted to poorer households, as the right-hand side of Figure 2.7 shows: in most (Western-)European countries they also happened to richer households. In the Netherlands, for instance, homeowner-ship decreases were mostly centered in urbanized areas where housing affordability was lowest (Hochstenbach and Arundel 2021).

FIGURE 2.7: INCREASE OF RENTAL TENURE (PERCENTAGE POINTS) OF POOR AND RICH HOUSEHOLDS



Source: Eurostat (https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvh02&lang=en)

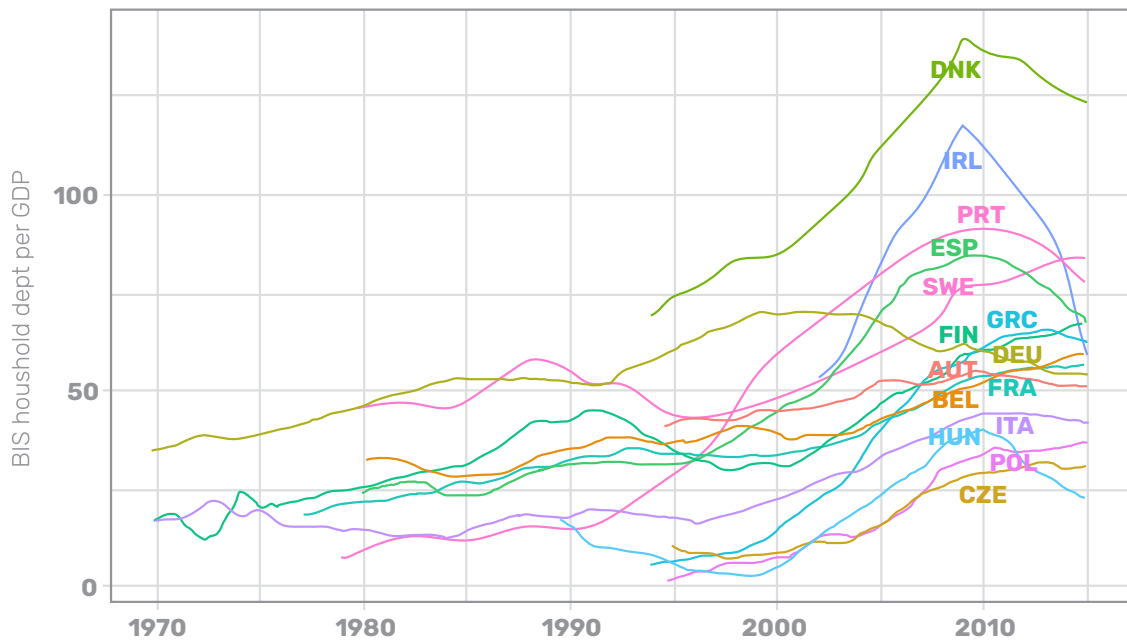
MORTGAGE FINANCE

The three housing market segments are all tied to different modes of finance, as residential investment is very capital-heavy. The owner-occupier sector and private landlords are connected to capital markets, whereas social housing providers are usually connected to some kind of (additional) state financing mode. Financialization of housing and mortgage finance refers first of all to the unprecedented growth of mortgage debt across the European Union within the recent

decades. In a narrower sense, it refers to the growing importance of finance and financial motive in each of the three housing market segments (Aalbers 2017).

This overall growth of private housing finance for homeowners and landlords is reflected in what has been called “the great mortgaging”, i.e. the unprecedented growth of outstanding mortgage debt to GDP since approximately the 1980s to currently almost 70% of GDP in OECD countries (Jordà et al. 2016), with the European average slightly lower (cf. Figure 2.8). In other words, in many European countries the private mortgage debtors in a country would not fulfil the Maastricht criterion of 60% maximum indebtedness to GDP. Private debt exceeds public debt in several countries. In another comparison, private mortgage debt, on average, started to exceed the amount of non-mortgage lending by banks around the year 2000 (Jordà et al. 2016). Commercial and savings banks have changed their macro-economic role from financing business to financing household debt, which is largely mortgage debt.

FIGURE 2.8: TOTAL HOUSEHOLD DEBT PER GDP (%) IN EUROPEAN ECONOMIES



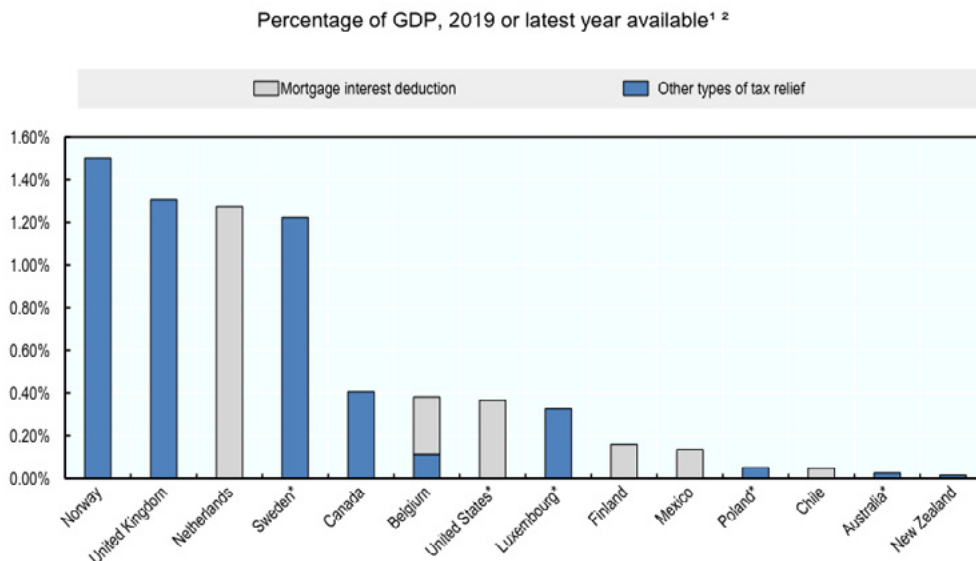
Source: Bank of International Settlements (<https://www.bis.org/statistics/totcredit.htm>)

The average private household indebtedness within the EU is not equally distributed, as Figure 2.8 shows. The highest private debtor countries are either in the North or South – Denmark has not only had a long tradition of accumulating mortgage debt, but, similar to other countries, has shown a further debt increase as house prices boomed before the Global Financial Crisis of 2008 (Wood 2019). Furthermore, all Southern European countries outside of Italy follow the high-indebted Northern Europeans closely. The relatively indebtedness of Italy – and historically other Southern European countries – has also been explained by the stronger significance of family savings and family mortgaging (Allen 2006). Eastern European countries are still the least indebted relative to the size of their respective economy. This is not to deny, however, that they experienced

one of the highest growth rates of private indebtedness before the crisis, as part of a process also described as “mortgaging Europe’s periphery” (Bohle 2018). In between these two extremes, we find more central continental countries whose debt levels have also not exploded during the last house price boom. In fact, Germany is the only country that experienced declining debt levels before the crash of 2008, whereas house-price busting countries also saw falls in mortgage indebtedness.

One important background condition for the rise of mortgage indebtedness is the different ways of home ownership support across Europe. Homeowners can generally either receive direct transfers – sometimes paid out as incentive for specific housing savings (e.g. in Germany or Austria) – or tax exemptions. Among the different tax exemptions, there is the non-taxation of imputed rent, the reduced taxation of capital gains for owner-occupied housing, exemption of new construction from VAT and the deduction of mortgage interest payments from income taxes. The OECD has recently estimated foregone tax revenue for these fiscal exemptions for homeowners amounts to more than one percent of GDP for countries which use them intensively, such as the Netherlands or Sweden (cf. Figure 2.8). On top of the approximate 0.5-1% of GDP that countries pay in housing allowances, more than 1% of GDP can be used as indirect fiscal support for homeowners.

FIGURE 2.9: FISCAL EXPENDITURES IN FAVOR OF HOMEOWNERS



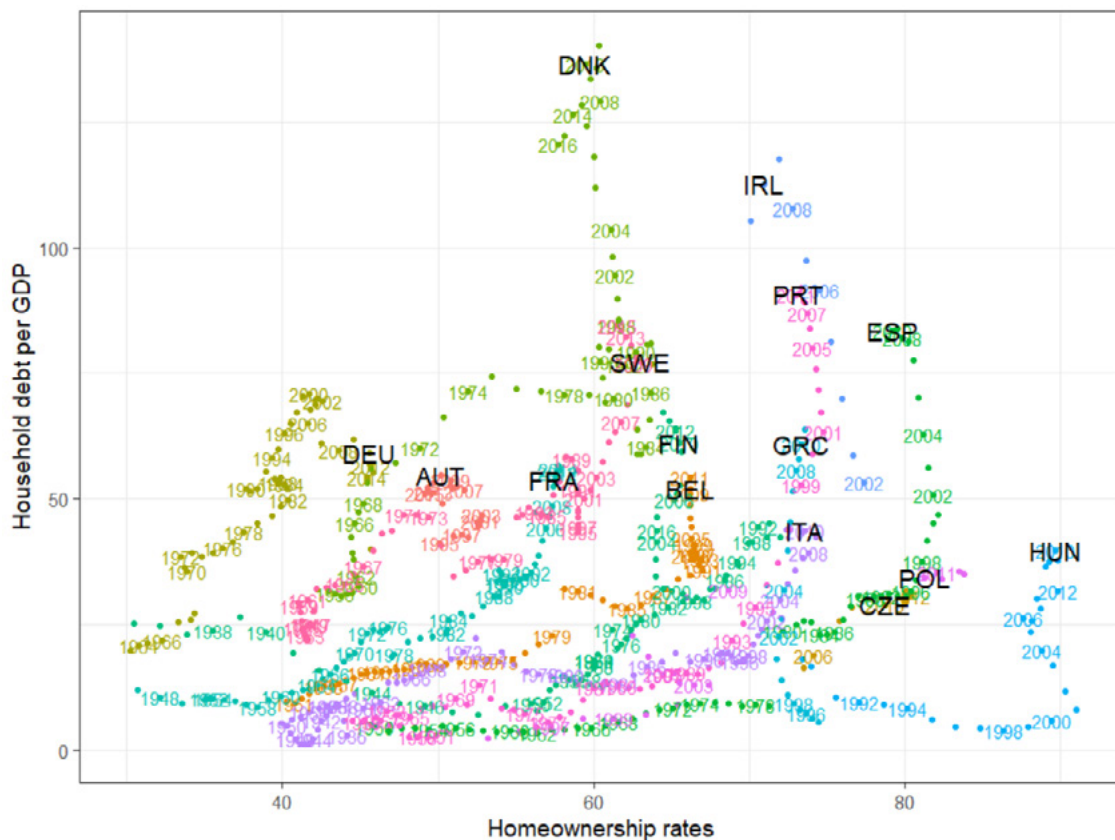
1. Year of reference: 2019, except for Australia (2017), Belgium (2016), Canada (2017 and 2015), Chile (2018), Finland - mortgage interest deduction (2017), United Kingdom (2018), Luxembourg (2018), Norway (2018), New Zealand (2018), Poland (2017), Sweden (2018), United States (2018).

Source: OECD, 2020. «Tax Relief for Home Ownership.» OECD Affordable Housing Database <http://oe.cd/ahd>

This rise of overall mortgage indebtedness went unsurprisingly together with the overall house price boom and bust (Wood and Stockhammer 2020), but was surprisingly decoupled from two goals that mortgage debt policies are aiming for: more home ownership and more construction (Kohl 2018, 2020). We will discuss these three correlates of the “great mortgaging” – home ownership, construction, prices – in turn.

We saw above that home ownership rates have risen almost everywhere in the EU over time, just with different trajectories. Part of the motivation behind the liberalization of financial markets in the 1970s and 1980s was to deepen home ownership expansion by making mortgage credit more widely available for aspiring homeowners. Yet, if one contrasts the historical “great mortgaging” with the timing of home ownership expansion, as in Figure 2.10, it becomes clear that historical periods where more mortgages actually lead to more home ownership are relatively rare. Instead, Figure 2.10 shows how much of the home ownership extension (horizontal movement of dots towards the right) occurred in years without almost any further mortgage indebtedness. The second movement that sticks out, is vertical movements, where countries are on a trajectory of rising debt without any further home ownership rate increases or even decreases, such as in Ireland. This occurred particularly in countries that had already accumulated large amounts of mortgage debt. There are few countries and years during which more mortgage indebtedness has indeed been associated with proportional increases in home ownership. Instead, many countries have accumulated pillars of debt.

FIGURE 2.10: **HOMEOWNERSHIP RATES AND MORTGAGE DEBT**

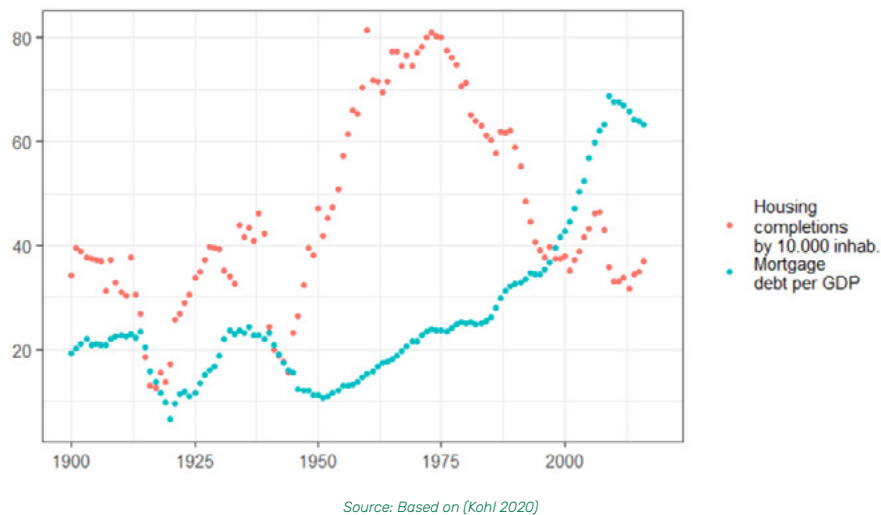


Source: Based on (Kohl 2018)

The deepening of financial markets has thus not necessarily increased home ownership much further and it has also not necessarily led to major construction booms (Kohl 2018). The explosion of mortgage debt started around the time when the post-war (re-)construction building cycle had already passed its peak of the 1970s. Ever since, the overall trend in housing construction in the European Union has been one of decline, as Figure 2.11 illustrates (without Eastern Europe).

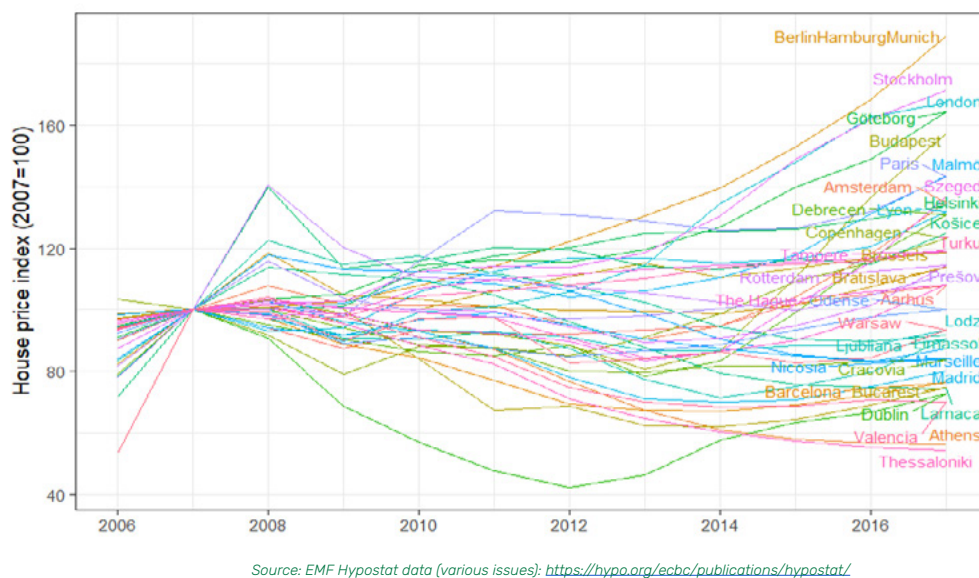
Relative to the population, new housing unit completions have approximately halved since the 1970s, with the 2000s seeing another housing boom at Europe's periphery, which imploded in 2008. Mortgage debt, having co-moved with building cycles up until the 1970s, has decoupled ever since. Little impressed by the ups and downs of the building cycle, it continued to grow until the Global Financial Crisis and has only slightly declined ever since.

FIGURE 2.11: CO-EVOLUTION OF BUILDING CYCLE WITH MORTGAGE DEBT



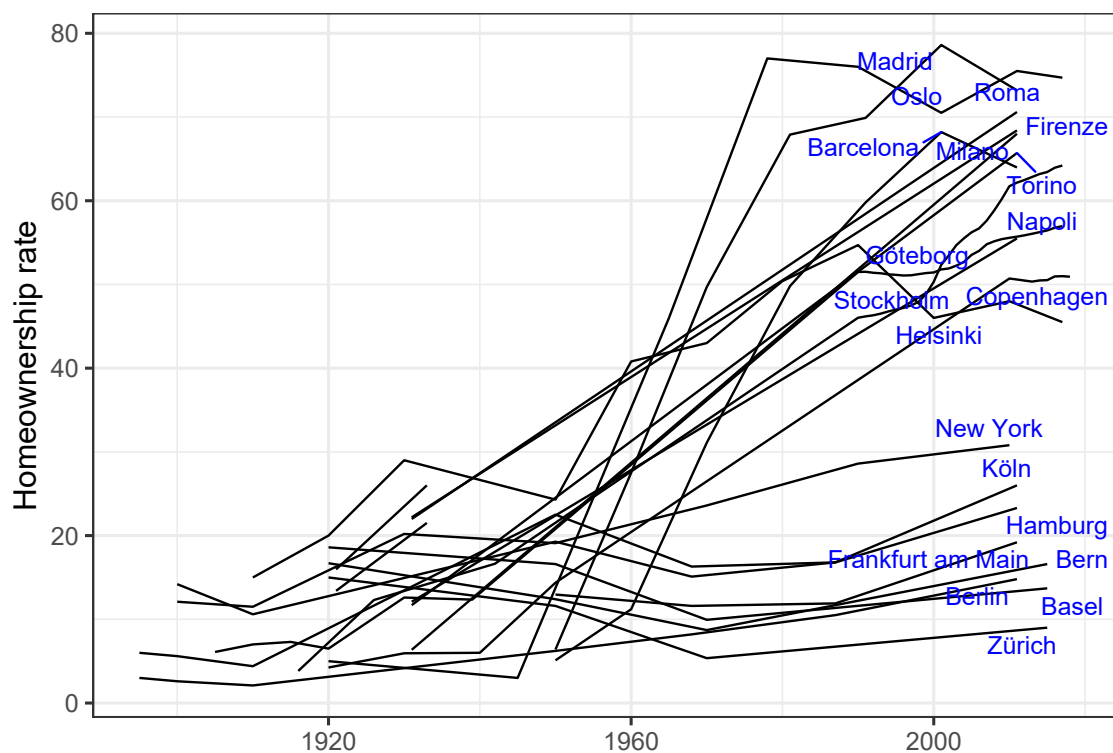
While mortgage debt has thus not been associated with more homes (Kohl 2020), it did contribute to higher prices. Part of differences between countries in terms of indebtedness reflect whether countries have recently experienced a house price boom or not, which absorbed much of the additional mortgage indebtedness. Almost all European countries experienced a house price boom between 1990 and 2008, but the bust period occurred rather in Southern and peripheral countries, and less so in Scandinavian ones, for instance. The German, and perhaps Austrian economies were outliers without almost any price appreciation until the crisis. Ever since, the cards have been reshuffled: Southern European cities that formerly experienced booms in house prices have hardly even recovered their pre-crisis price levels, whereas Scandinavian cities continued to boom, and are now joined by the previously more conservative German- and French-speaking cities.

FIGURE 2.12: HOUSE PRICE TRENDS IN MAJOR EUROPEAN CITIES



One of the reasons for rising prices in major cities have been shortages in new housing construction. As seen above, construction has been in a long-term decline and has only recently started to gain pace again. In these booming countries and cities (Hochstenbach and Arundel 2019), despite house prices having decoupled from underlying rent prices, they still contributed to affordability problems in major European cities. Cities in Europe also have country-specific profiles of tenure composition: Southern European cities are clearly inhabited by home ownership majorities for whom the house price to income ratio are the most relevant metric, Scandinavian cities have about half of the population as owners, while central European cities often only have one third or even less (cf. Figure 2.13). For large shares of the urban population, rent prices relative to income are therefore the most important metric.

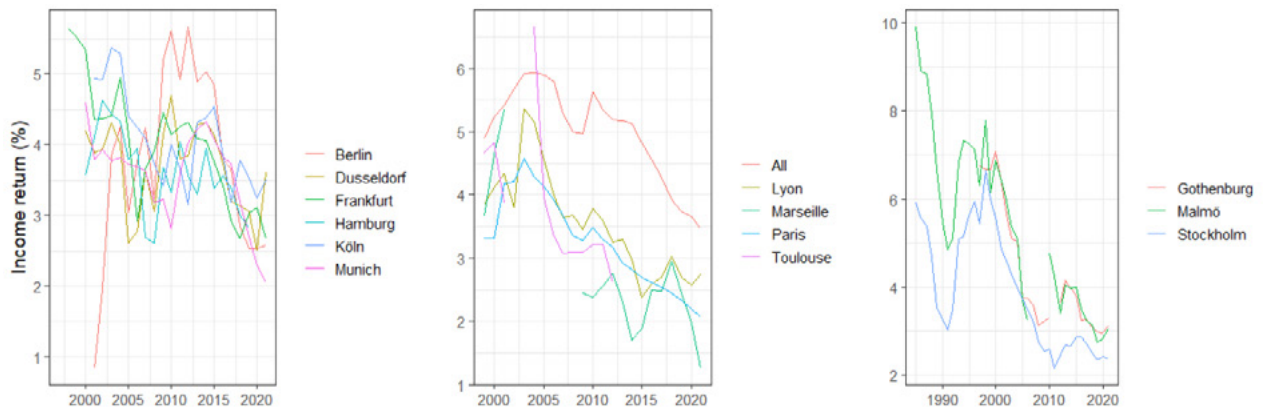
FIGURE 2.13: HOME OWNERSHIP RATES IN EUROPEAN CITIES



Source: (Amaral et al. 2021)

One result of house prices rising faster than rents (Hilber and Mense 2021) is that rental yields in cities have been decreasing over the last decades, approximating the returns of other long-term safe assets. Figure 2.14 shows the average rental yields of major residential real estate portfolios in major European cities and their remarkable decline over recent decades. This was only partially compensated for by appreciation of value (Amaral et al. 2021). For institutional investors, big-city investments can still be reasonable, though, because their expectations about future house prices are exuberant or because big cities are perceived as a safe haven. Even though rents have increased less than house prices in major cities, this does not imply that tenants are necessarily better off since income, not house prices, is the more important reference for tenants.

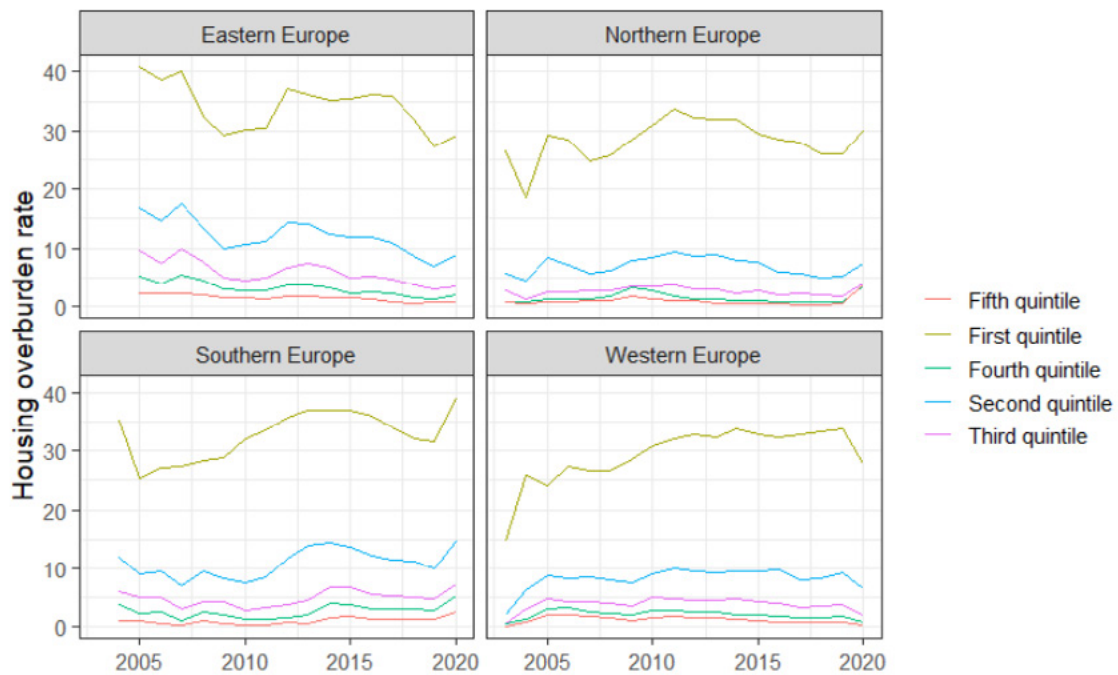
FIGURE 2.14: RENTAL YIELDS (%) IN MAJOR EUROPEAN CITIES



Source: (Amaral et al. 2021)

This can be observed through the housing cost overburden rate, i.e. “the percentage of the population living in households where the total housing costs (‘net’ of housing allowances) represent more than 40 % of disposable income (‘net’ of housing allowances)”, as defined by Eurostat. Generally, the overburden rate has increased, particularly for tenants and particularly in cities. Southern-Western European countries are the ones in which the housing burden, i.e. the housing cost component in household budgets has increased, mainly driven by the bottom 20% of households whose overburden rates grew from below 30% to almost 40% in the 2010s. The Northern European bottom quintile also does worse than in the earlier 2000s, with the level still at about 30%, whereas Eastern European household overburden rates decreased.

FIGURE 2.15: HOUSING OVERBURDEN RATES BY INCOME QUINTILES

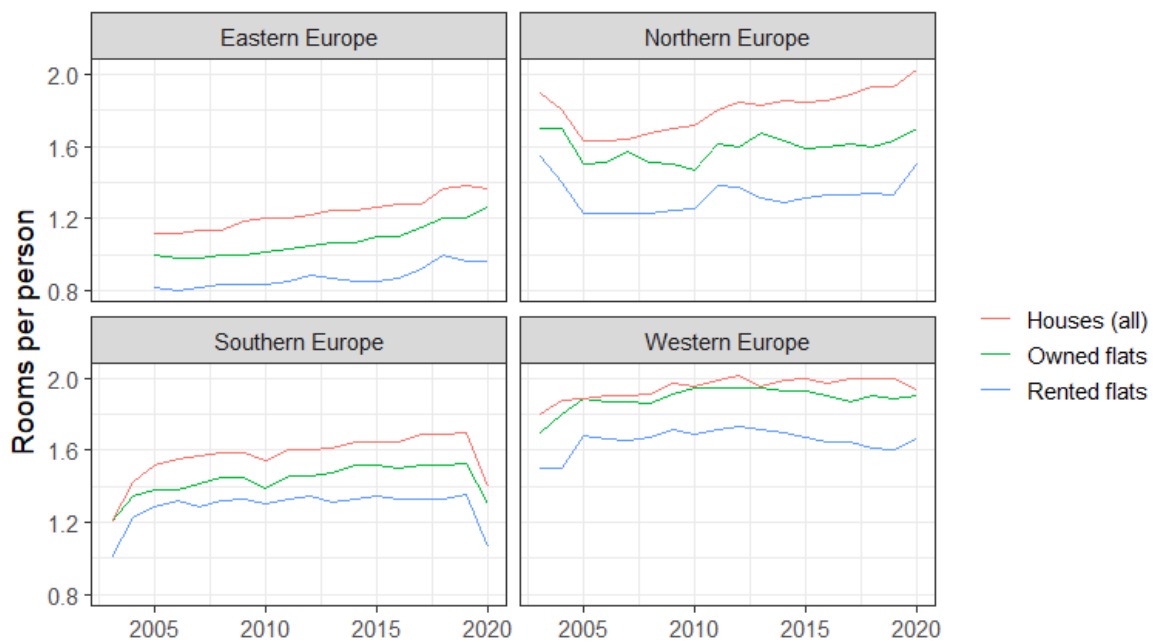


Source: Eurostat¹³

13 https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho07b&lang=en

As another result of rising prices, the long-run trend of rising living space per capita has been either slowed down or even reversed in recent years. This is particularly the case for tenants in flats and in urban areas (Figures 2.16/17), when compared to owners of flats/houses and the less urbanized areas. For urban tenants, however, the average number of rooms per person has generally decreased and partly as a result, the overcrowding rates have increased, i.e. the share of households where, broadly speaking, there are more household members than rooms. By this Eurostat definition, 30% of Southern European city dwellers lived in overcrowded arrangements.

FIGURE 2.16: NUMBER OF ROOMS PER PERSON BY MARKET SEGMENT

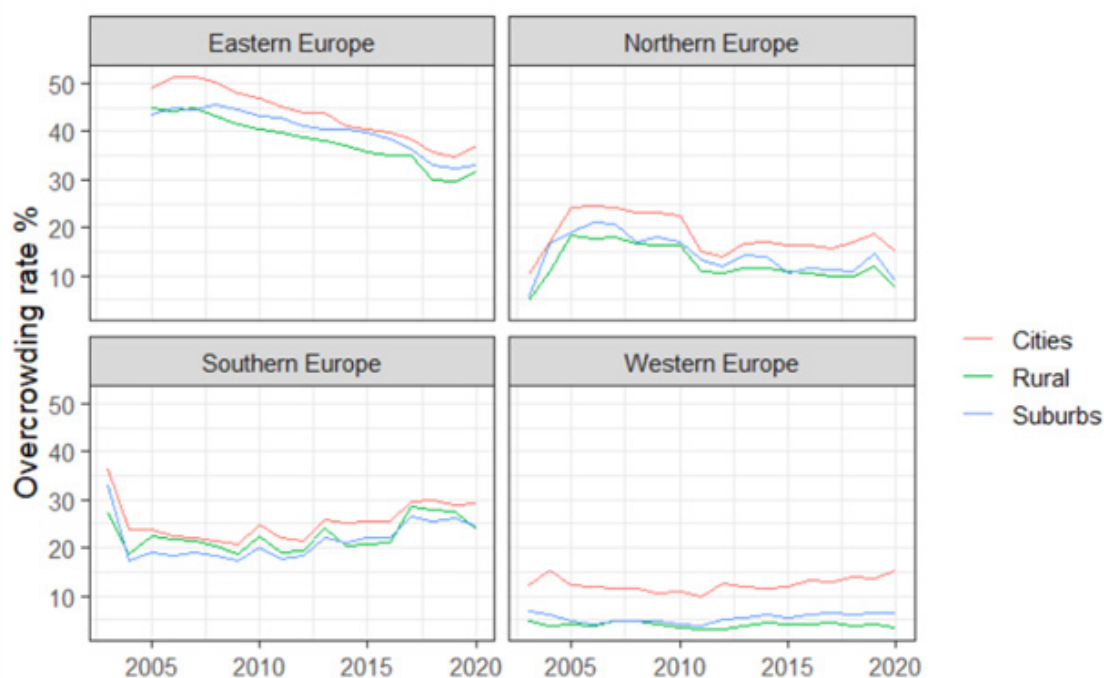


Source: Eurostat¹⁴

While this trend holds firm on average in the EU, it is particularly driven by Southern and Western Europe, whereas Eastern Europe in particular has seen increases in terms of living space; the starting point, however, is from very low levels (almost half those of Western Europe) due to the historical legacies of socialist housing regimes. Both the Eastern increase and Southern-Western decreases are related to demographic changes, i.e. different urbanization rates and the transition to ageing societies. The unemployment shock following the Global Financial crisis in Southern Europe has led to stronger cohabitation (Martínez Mazza 2020) and to migration from Eastern Europe.

14 https://ec.europa.eu/eurostat/databrowser/view/ilc_lvho03/default/table?lang=en

FIGURE 2.17: **OVERCROWDING RATE (%) BY URBANIZATION**



Source: Eurostat¹⁵

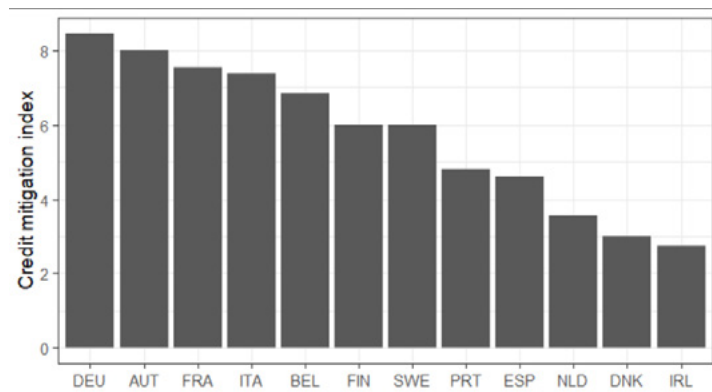
MORTGAGE INSTITUTIONS

While the rise of mortgage indebtedness to historically unprecedented levels is virtually shared by all countries, the overall level of debt hides important institutional differences in the provision with mortgage credit. One central distinction beyond the mere level of indebtedness is how easy credit access is made for potential home buyers because this determines both how extensively credit is available and how intensive the debt level can be per individual household. Both the extension of debt across ever more debtor households and the increase in intensity of debt levels have been shown to have fueled debt levels (Van Gunten and Navot 2018).

Countries have generally been grouped into conservative versus liberal mortgage lending regimes (IMF 2008). One classification for many European countries uses five dimensions to create a continuous index of how accessible mortgage credit is (Fuller 2015; Johnston et al. 2020): the higher the mortgage loan to housing value ratio (LTV), the less mortgage payments and capital gains are tax deductible, the more regulation there is on interest rates and the fewer secondary mortgage markets exist, and the more conservative a mortgage regime scores on average. This so-called credit-mitigation index is displayed in Figure 2.18 which, once more, contrasts the more central continental conservative countries around Germany at one end with the more credit-liberal North-Western and Southern European countries towards the other. The latter have, in turn, been associated with higher levels of indebtedness, but also a stronger focus on domestic consumption and the domestic construction sector in the economy (Fuller 2015). Recent research has only started to see this consumption or construction centeredness as part of different and potentially conflicting macro-economic growth regimes in the EU (Baccaro and Pontusson 2016).

¹⁵ https://ec.europa.eu/eurostat/databrowser/view/ilc_lvho05d/default/table?lang=en

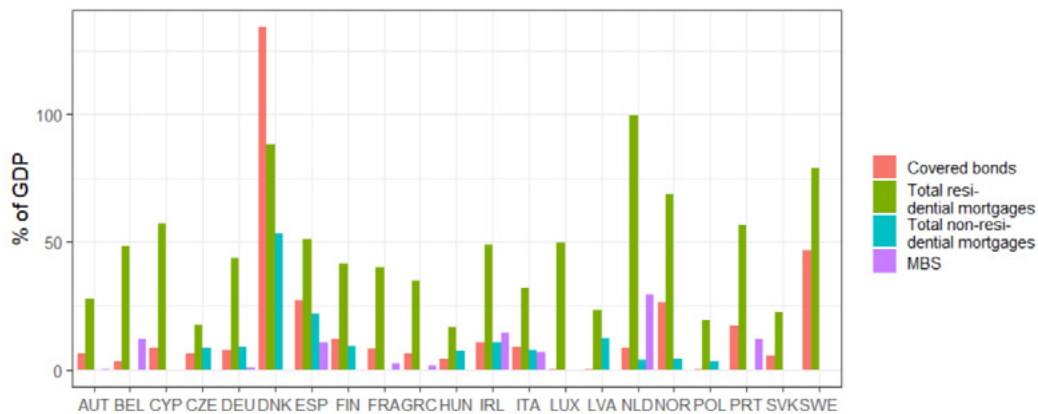
FIGURE 2.18: COUNTRIES BY LIBERAL/CONSERVATIVE MORTGAGE REGIME



Source: (Johnston et al. 2020)

On the level of mortgage-lending institutions, countries' differences in banking systems are also reflected in how mortgages are financed. Historically, insurers or pension funds have also played an important role in the mortgage market – reaching market shares of 20-30 percent in peak times. Inflation and low-interest rates have made them shift more assets into direct real estate (but still negligible in their total securities-dominated portfolios). Historically, banks could either finance mortgages through deposit collections (by savings banks or specialized building societies) or through the sale of covered bonds (Blackwell and Kohl 2018), where Europe is historically unique in having developed a large market for covered bonds issued by specialized mortgage-banking institutions (like the *Crédit foncier de France*, *el Banco hipotecario*, *Hypothekensbanken*, etc.). German-speaking and Scandinavian countries have traditionally developed larger markets for covered bonds. Since the 1960s, commercial banks started discovering the mortgage business and joined the traditional savings banks and building societies in financing mortgages through deposits (Boléat 1985). Most mortgages are therefore financed in this way, with a minority through covered bonds. Over the last decades, the sale of American-style mortgage-backed securities advanced a new secondary mortgage market, particularly in European countries without a large established covered bond system. The resulting outstanding mortgage debt across different institutional segments is displayed in Figure 2.19.

FIGURE 2.19: EUROPEAN MORTGAGE DEBT STRUCTURE PER GDP, AVERAGES 2008-2019

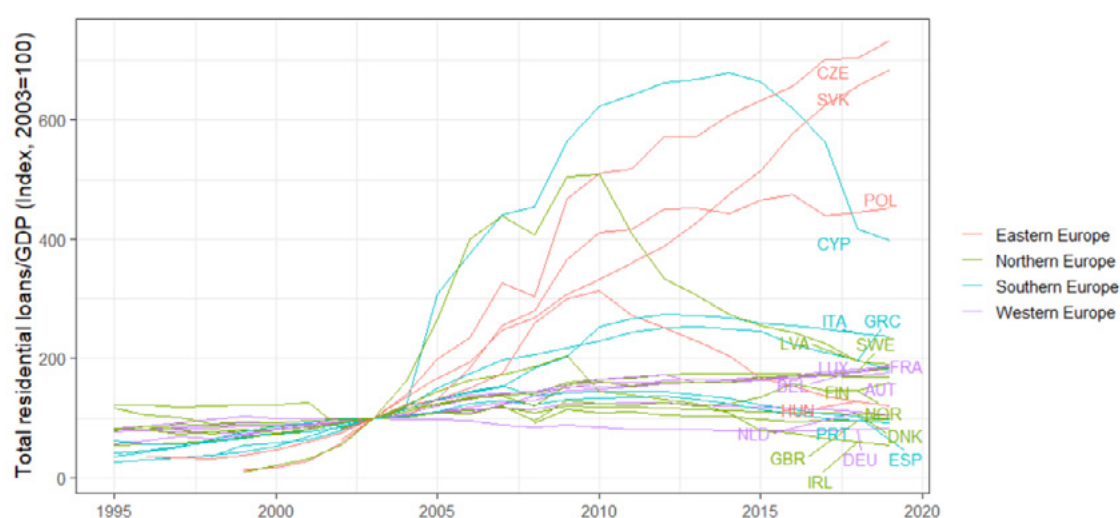


Source: (EMF 2020)¹⁶

¹⁶ Country codes: AUT = Austria, BEL = Belgium, CYP = Cyprus, CZE = Czech Republic, DEU = Germany, DNK = Denmark, ESP = Spain, FIN = Finland, FRA = France, GRC = Greece, HUN = Hungary, IRL = Ireland, ITA = Italy, LUX = Luxembourg, LVA = Latvia, NLD = Netherlands, NOR = Norway, POL = Poland, PRT = Portugal, SVK = Slovakia, SWE = Sweden

A first observation is that residential mortgages make up the great majority of mortgages when compared to their non-residential counterparts. Secondly, Scandinavian countries stand out with the highest rates of covered bonds financing – Denmark being the obvious outlier, where mortgages are also used to secure many non-residential buildings. Third, the more recent mortgage-backed securities have grown substantively in only a few countries, where they matched or surpassed the level of covered bonds. Where covered bonds had already been established as mortgage institution, securitization made fewer inroads into a country’s financial system. Broadly, when mortgage bonds are low and total mortgage debt high, deposit-institutions – savings banks in many countries and commercial banks – are the most important direct mortgage lending institutions. Finally, the low number of indebted owners in Eastern European countries corresponds to low levels of total household and mortgage indebtedness per GDP. The low levels hide, however, the fact that formerly communist countries saw by far the steepest increase in mortgage loans (cf. Figure 2.20): with reference to 2003 and despite the Global Financial Crisis, some Eastern European countries’ household loans have multiplied 6-fold up to 2019, largely leaving Western European growth rates behind.

FIGURE 2.20: **TOTAL RESIDENTIAL LOANS TO GDP (INDEX) IN DIFFERENT PARTS OF EUROPE**



Source: EMF Hypostat data (various issues): <https://hypo.org/ecbc/publications/hypostat/>

One particularity of this mortgage growth was that it was in large parts due to foreign-currency denoted loans, often from West-European banks. Before 2008, the share of foreign-currency amounted to 36% of mortgage loans in Bulgaria, 46% in Hungary, 55% in Poland, 88% in Romania and Croatia (Beck et al. 2012). The risk of serving a mortgage loan with a labor income flow of potentially weaker domestic currencies became real in many countries in the aftermath of the Global Financial Crisis and marked one downside of financialization through mortgage banking. While investing in mortgages through deposit banks has been the traditional and most widespread mode of housing finance in European countries, we turn to more widespread forms through which housing can become an asset in the following.

3

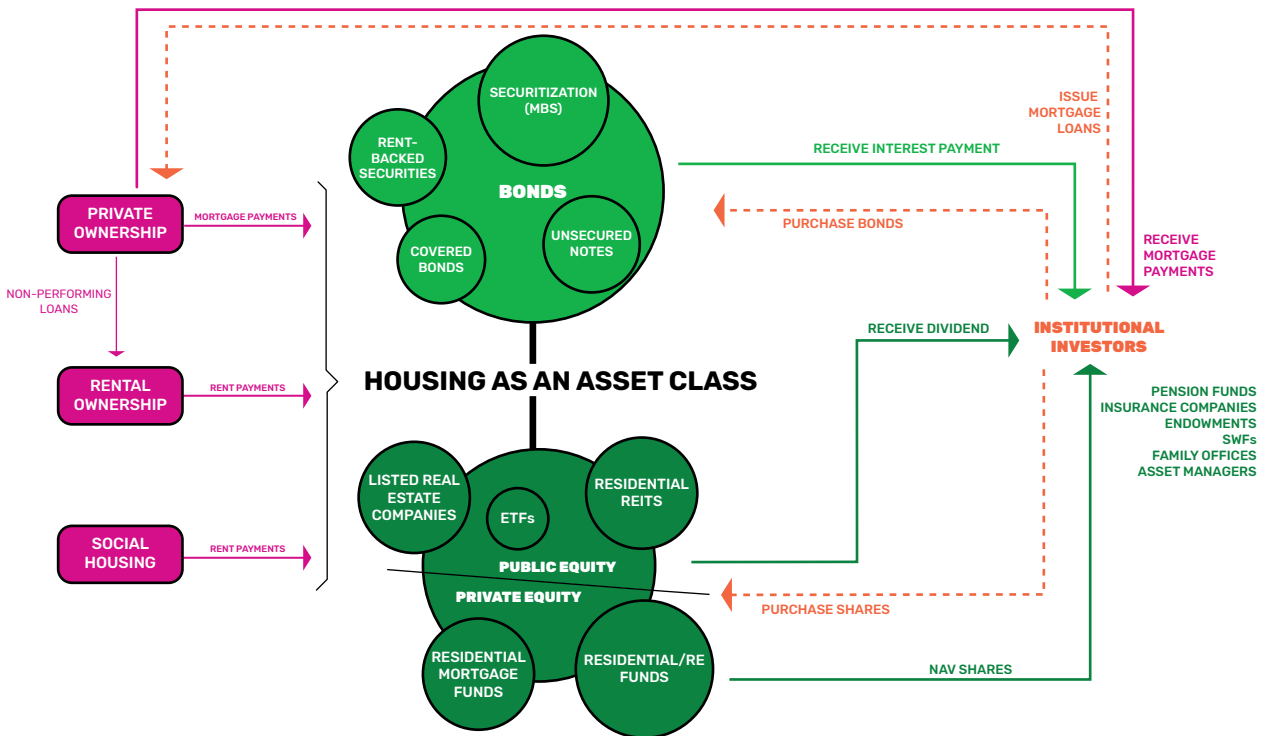
THE FINANCIALIZATION OF HOUSING

In this section, we map the variety of housing asset classes, the strategies through which these are produced and incorporated into institutional portfolios, and their recent evolution in comparison with the decline in social housing provision.

3.1 HOUSING AS AN ASSET CLASS (HAC) IN INSTITUTIONAL PORTFOLIOS

Housing as an asset class involves residential housing – be it in private ownership, rental ownership or social housing – providing a stream of revenue to institutional investors (see Figure 3.1), including pension funds, insurance companies, endowments or managers of individual wealth (high-net worth individuals). Consider an insurance company. It can be exposed to residential housing via several financial instruments: it can lend directly through residential mortgages, it can purchase fixed income instruments (bonds or money market instruments) issued by other investors to finance their portfolio of residential housing, it can purchase shares issued by real estate companies or REITs, and it can invest in private equity real estate funds that raise capital from investors to purchase either a combination of commercial estate and residential housing, or focus on one of the two ¹⁷.

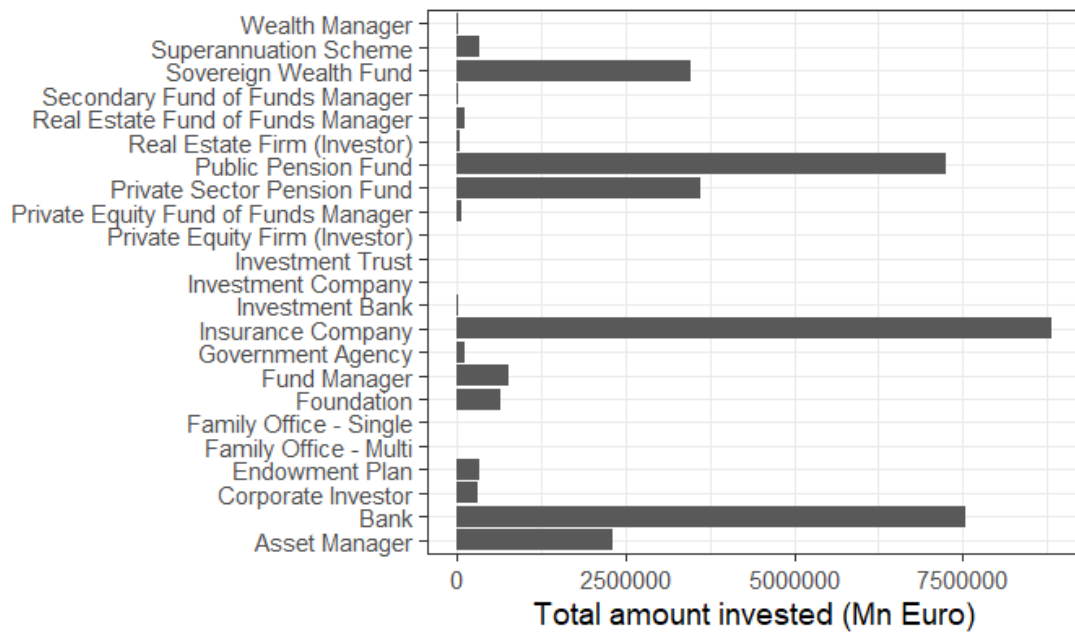
FIGURE 3.1: HOUSING AS AN ASSET CLASS



¹⁷ For both private equity and REITs, commercial real-estate (offices, shopping malls, business properties, etc.) are typically more important than housing as an asset class, but there are a couple of dozen REITs uniquely devoted to residential real estate.

Real estate has become an important asset class for institutional investors. Real Estate includes hotels, industrial (data centers, distribution warehouses), land, offices, shopping centers, car parks, student housing, elderly care, and residential housing. According to Preqin data, more than 4000 institutional investors, including banks, directed around USD 3.6 trillion of their USD 136 trillion assets under management to European real estate in August 2021. Of these, 1325 investors, with AUM of USD 44 trillion, held residential assets in their RE portfolios. The value of real estate portfolios that include housing was about USD 2 trillion, although it is impossible to identify the exact value of residential assets alone, since investors do not report these separately. The breakdown of total allocation outstanding in 2021 shows that insurance companies, public and private pension funds, banks, sovereign wealth funds and asset managers are the main institutional investors in residential real estate (Figure 3.2).

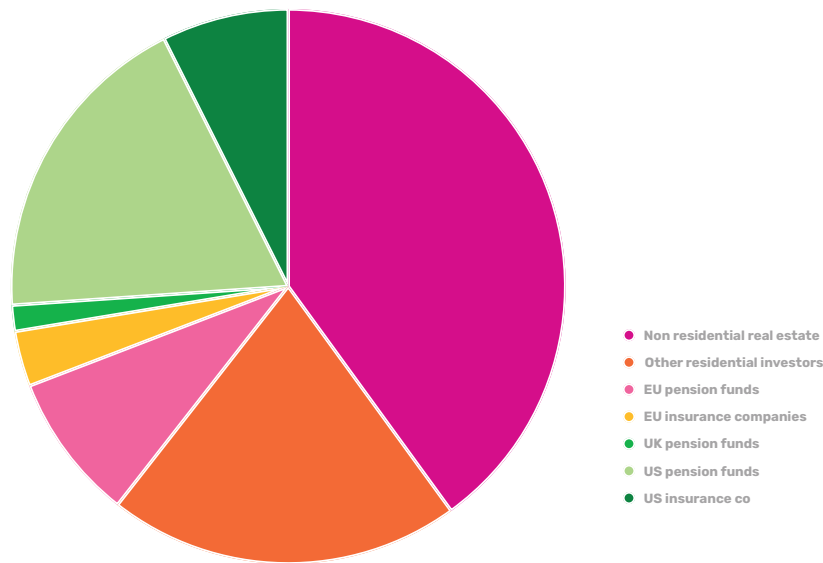
FIGURE 3.2: INSTITUTIONAL INVESTORS IN EUROPEAN RESIDENTIAL REAL ESTATE (AUGUST 2021)



Source: Preqin data, 2021

Typically, institutional investors prefer to include real estate funds (managed by either private equity firms like Blackstone, or other asset managers like BlackRock) in their portfolio allocations to real estate. Indeed, in August 2021, only a quarter of institutional portfolios that include housing assets (USD 581bn) did not use funds. In turn, of the USD 2.5 trillion of investments in European real estate that included allocations to RE funds, USD 1 trillion did not include housing. The remaining USD 1.5 trillion is dominated by US institutional investors (Fig 3.3). The most important drivers of the financialization of European housing are US pension funds and insurance companies, where European-focused RE portfolios with housing allocations amounted to USD 650 bn. In comparison, EU pension funds and insurance companies together held around USD 300 bn in RE assets that include housing.

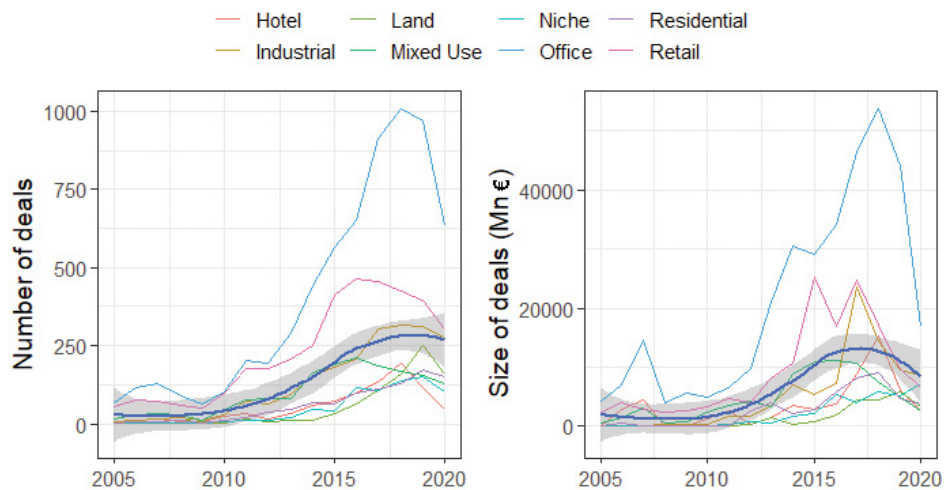
FIGURE 3.3: LOCATION OF INSTITUTIONAL INVESTORS WITH ALLOCATIONS TO REAL ESTATE FUNDS, INCLUDING HOUSING (2021)



Note: this includes institutional portfolios that invest in Europe-focused RE funds, Source: Preqin data 2021

Within all the major approximately 20,000 real estate deals in Europe over the last years as reported by Preqin, deals involving primarily residential real estate generally make up only about 5%, with office deals leading with 37% of all deals. Residential real estate, however, is often included in many deals and is also part of mixed-use deals. Moreover, it has been participating in the general trend of increasing number and size of the deals in the 2010s (cf. Figure 3.4), confirming that residential real estate has become an increasingly important asset for institutional investors and asset managers. As Figure 3.4 shows, the pace of institutional purchases of residential real estate has accelerated since the global financial crisis and has proved resilient to the COVID19 pandemic. Data from private equity companies suggest significant ‘dry powder’, or an appetite for increasing the exposure to housing assets, constrained by the availability of housing portfolios of sufficient scale.

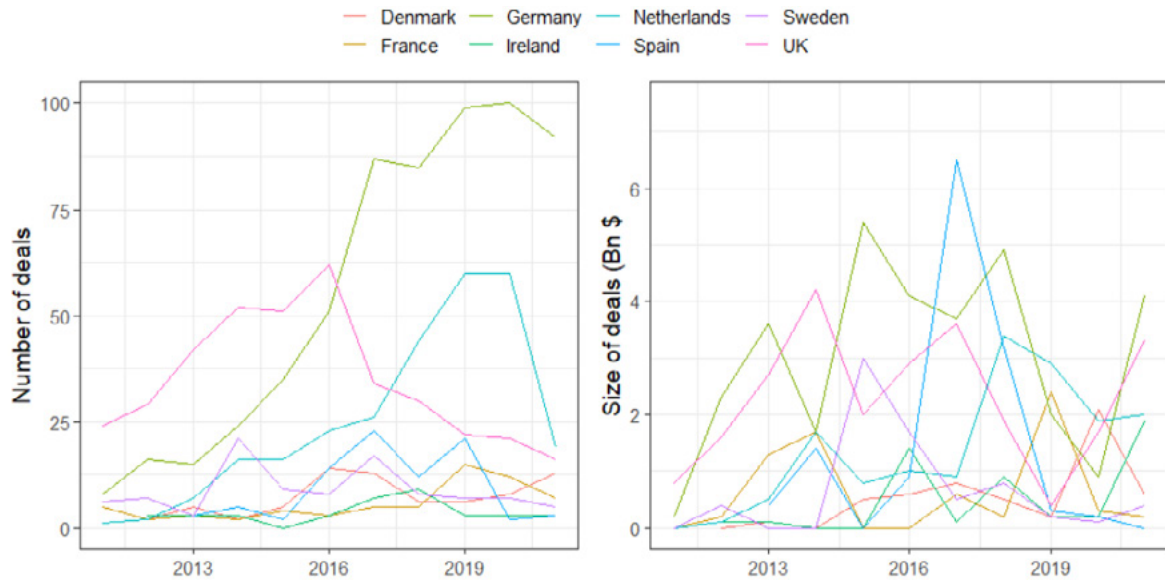
FIGURE 3.4: NUMBER AND SIZE OF YEARLY REAL ESTATE DEALS BY MARKET SEGMENT



Source: Preqin 2021

In the residential segment only, Germany has grown to record the highest number of big deals, as recorded by Preqin, with relatively high aggregate values (cf. Figure 3.5). Over the 2010s, it has outgrown other countries such as the UK as a particularly liquid market for large deals in residential portfolios.

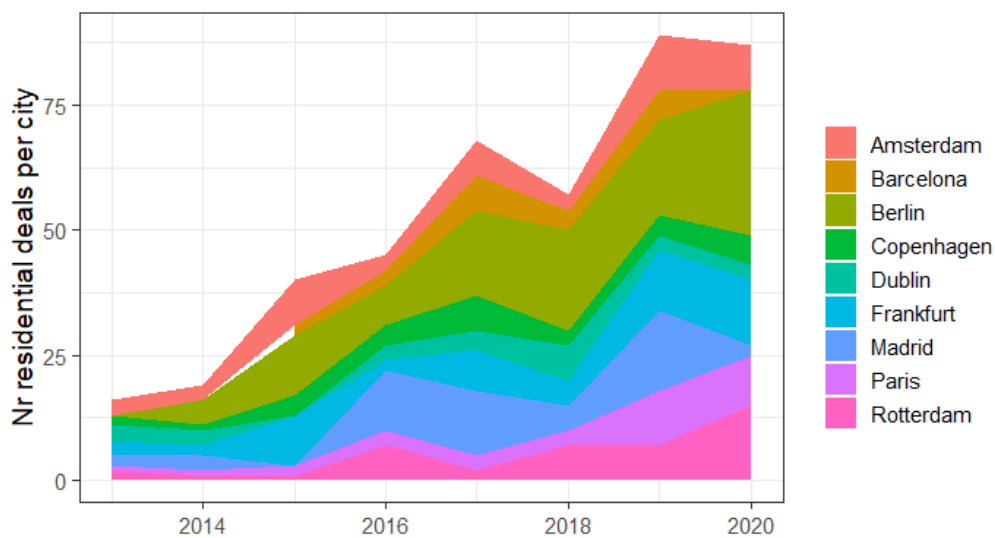
FIGURE 3.5: NUMBER AND SIZE OF RESIDENTIAL REAL ESTATE DEALS BY COUNTRIES



Source: Preqin 2021

This is largely reducible to large residential deals in the major cities of the respective countries, as Figure 3.6 shows in a break-down of Preqin-data. Over time, the number of total real estate deals involving large housing portfolios grew considerably in almost all major cities.

FIGURE 3.6: NUMBER OF RESIDENTIAL DEALS SINCE 2013 BY MAJOR CITY



Source: Preqin 2021, see for more cities: https://dataverse.shinyapps.io/big_realstate_deals/

Institutional *flows* into residential real estate capture both new acquisitions (say for example of non-performing housing loans to recover collateral) and residential housing changing institutional hands (private equity funds selling some of their portfolio to another institutional investor). In 2020, the volume of institutional transactions reached EUR 64bn, slightly down on 2019 but less than predicted given the slowdown in economic and financial activity caused by the COVID19 pandemic. In turn, estimates of the *stock* of housing assets held by institutional investors are more difficult to compile. Data from Real Capital Analytics suggests around EUR 150bn across large European cities, held through private and public equity (REITs and shares of real estate companies) and directly (figure 3.7).

European capital cities have been the primary target, though unevenly distributed, of institutional investment flows (Figure 3.8). Berlin ranks first with over 40 bn in housing assets in institutional portfolios, followed by London, Amsterdam, Paris and Vienna. Larger cities are generally more likely to be the site of big portfolio deals in real estate in general, and residential real estate in particular, but the Netherlands and the UK are also countries where deals are reported from many smaller cities. A sizeable share of investors in these deals, sometimes the majority, comes from abroad as revealed in the Real Capital Analytics data presented by the Tagesspiegel.¹⁸

The geographical distribution reflects the relative importance of four broad historical tendencies:

- the withdrawal of the state from the provision of affordable housing provision (Fields 2017), under secular (neoliberalism) and cyclical pressures (fiscal austerity), that resulted in the privatization of housing stock (as for example in Berlin).
- collapsing housing bubbles that lead to a rise in non-performing mortgage loans that are absorbed by institutional portfolios through distressed buying (see (Wijburg et al. 2018) as for example in Spain and Ireland);
- build-to-rent: the growing, often direct, involvement of private investors in the development of new rental housing (Nethercote 2020), replacing housing companies owned by state or local government, churches, unions, or corporations that typically received federal and municipal subsidies in exchange for rent ceilings and allocation priorities.
- macroeconomic policy regimes supportive of housing prices (quantitative easing) and other forms of state de-risking HAC for institutional investors (Christophers).

¹⁸ <https://interaktiv.tagesspiegel.de/lab/mietmarktlabor-berlin-wie-internationales-investment-den-mietmarkt-veraendert/>

FIGURE 3.7 INSTITUTIONAL TRANSACTIONS, BUY-TO-LET APARTMENTS, EUROPE

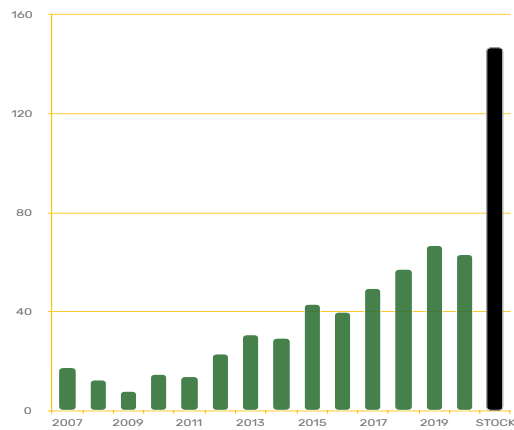
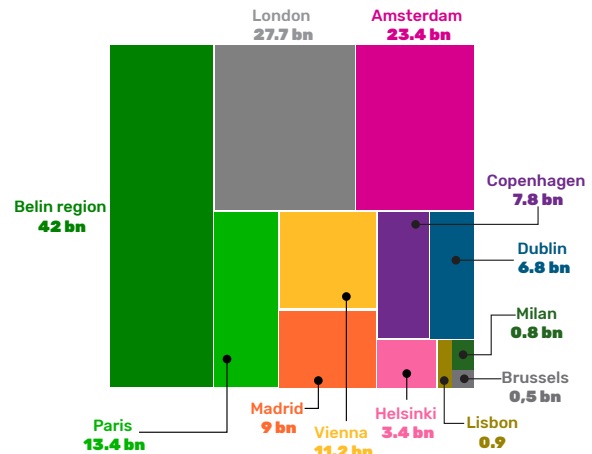


FIGURE 3.8: DISTRIBUTION OF HOUSING ASSETS IN INSTITUTIONAL PORTFOLIOS, 2021



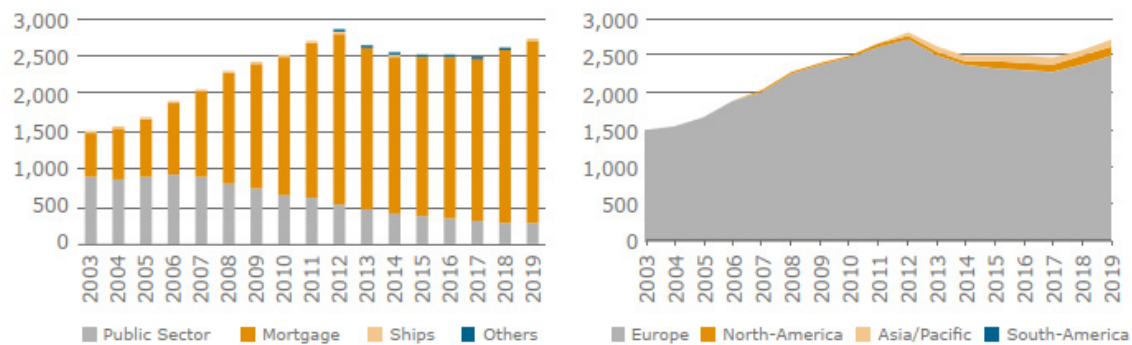
Source: compiled with data from *Cities for Rent* and <https://www.dublininquirer.com/2021/04/28/mapping-dublin-s-growing-constellation-of-company-landlords>
 Note: green bars capture institutional flows into housing assets, where transactions are larger than EUR5 million and over 10 apartments; the black bar captures the stock of housing owned as an asset class.

In the rest of this section, we focus on the distinctive type of asset classes that allow institutional investors to gain exposure to residential housing.

3.2 SECURITIZATION OF HOUSING LOANS

Most European countries have a larger market of covered bonds than of mortgage-backed securities, even though the latter form of securitized loans has been rising steeply. As discussed above, covered bonds have a long tradition in Europe, are an almost unique European financial instrument (92% of the global market) and are used for state (often: local public) finance, ship finance and mortgage finance, as reported by the European Covered Bond Council (cf. Figure 3.9).

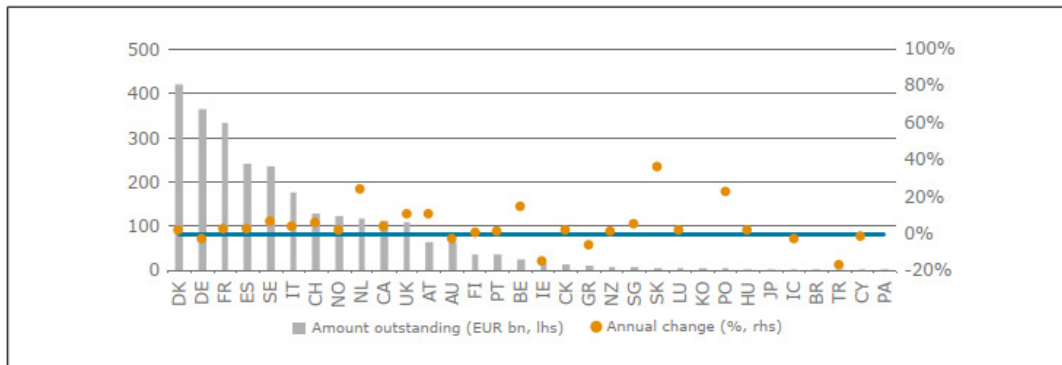
FIGURE 3.9: TOTAL COVERED BONDS OUTSTANDING, BN EURO



Source: EBCB Factbook 2020, p.544

Austria and Germany made most use of this instrument for public-sector finance for about one third of their covered bonds in 2019, whereas generally covered bonds are mainly only about mortgage finance in all other countries (cf. Figure 3.2d). Total outstanding covered bonds amounted to 2.7tn Euro by 2019, issued by 329 different bond issuers, the majority being outstanding in the few big issuing: countries Denmark, Germany, France, Spain and Sweden (figure 3.10).

FIGURE 3.10: **TOTAL COVERED BONDS OUTSTANDING, BN EURO, AND ANNUAL CHANGE BY COUNTRY**

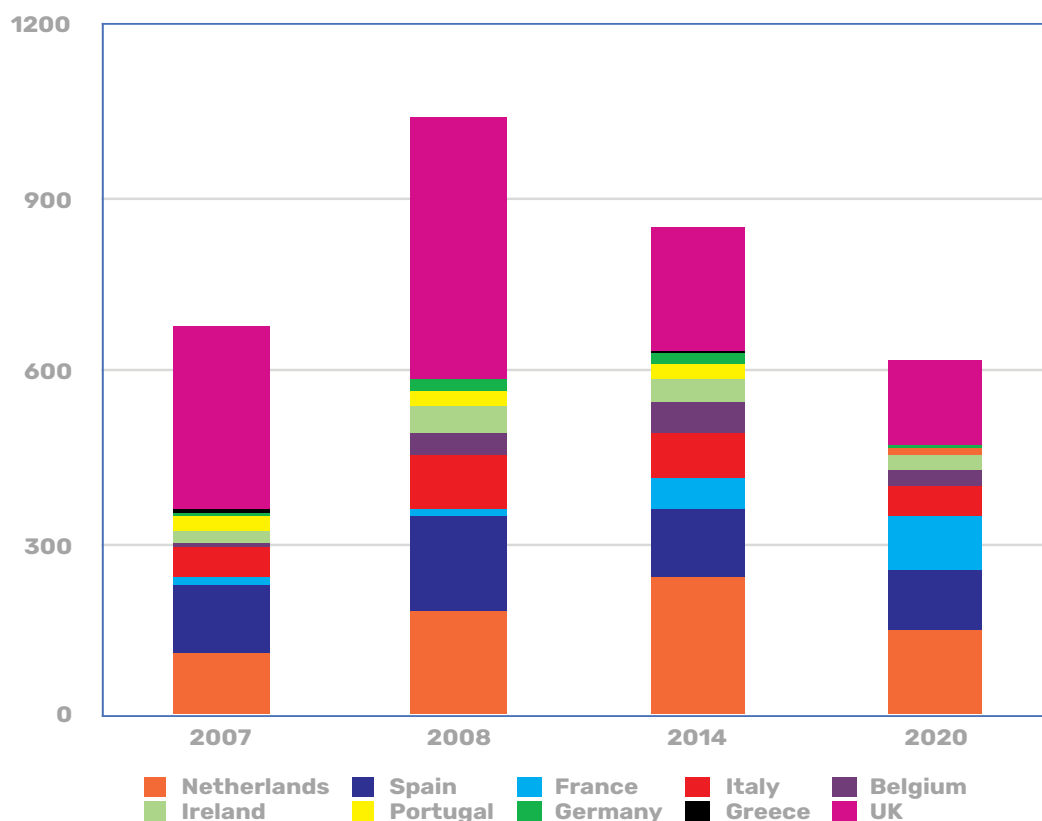


Source: ECB Factbook 2020, p.546

Mortgage-backed securities – MBS – have also become a housing asset class of growing importance, given the central role that these securitization instruments played in the crisis of shadow banking in the US that morphed into a global financial crisis with the collapse of Lehman Brothers in 2008. In Europe, after a period of retrenchment, European level policies have sought to reinvigorate the securitization of residential mortgage loans first through the Simple, Transparent and Standardized (STS) regime introduced in 2019, and during the COVID19 pandemic, through the changes in the rules governing the securitization of non-performing loans (Engelen and Glas-macher 2018).

At the time of Lehman Brothers’ collapse, European securitization activities were dominated by the securitization of residential mortgages, falling to 53% (2009) from 76% (2008) of total issuances across securitized asset classes. The role that RMBS played in the US financial crisis is well-established, including conflicts of interest and misaligned incentives, overreliance on CRA risk models, and opaque collateral and deal structures (ECB 2011). While these practices were relatively less present in the European RMBS market, the overall structural trend over the last decade has been one of significant shrinking in the securitization of housing loans, particularly if the UK is included. In the EU, the big four – Netherlands, Spain, France and Italy – remain dominant as sources of housing collateral (see Figure 3.11).

FIGURE 3.11: STOCK OF RESIDENTIAL MORTGAGE-BACKED SECURITIES, EUROPE (EUR BN)



Source: compiled with data from the Association for Financial Markets in Europe <https://www.afme.eu/divisions-and-committees/securitisation>

The securitization of mortgage loans has been associated with the financialization of housing, by pumping real estate bubbles, most notably in Spain and Ireland.

The STS regime (Simple, Transparent and Standardized)

RMBS issuance is expected to pick up under the new Simple, Transparent and Standardized securitization rules introduced by the European Union in 2018. Indeed, it is important to note that the state has historically played an important role in promoting the securitization of housing, both through its fiscal arm and its monetary arm. It has restructured housing finance, promoted secondary mortgage markets (Aalbers et al. 2011) and allowed tax arbitrage (Fernandez and Aalbers 2016). For instance, EU securitization activities are typically concentrated in tax havens such as Ireland and Luxembourg, allowing institutional investors to minimize tax burdens on capital gains. In turn, central banks' regulatory and monetary policy decisions can accelerate securitization, for instance by accepting RMBS collateral on favorable terms, and thus encouraging banks to hold them.

The STS regime establishes preferential treatment for credit institutions and investment firms exposed to them under the Capital Requirements Regulation. It identifies a set of practices that would render securitization 'simple, transparent and standardized' (see Chapter 4). Close observers predicted that the STS label would mainly affect the RMBS market and accelerate trajectories of housing financialization (see Fernandez and Aalbers 2016). Indeed, in its first 6 months since inception in March 2019, the STS market was concentrated in the RMBS segments in the Netherlands and the UK¹⁹. The COVID19 pandemic slowed down STS issuance, particularly in the res-

¹⁹ See for instance <https://www.mortgagefinancegazette.com/market-news/funding/european-rmbs-outlook-forecast-stable-2020-28-01-2020/>

idential housing sector, as large issuers such as Obvion or Aegon postponed or suspended their planned issuance. Potentially, the use of the recovery fund for the major maintenance and renovation needs of Europe's housing sector, including the about 11% social housing stock, could potentially become an accelerating factor, as a recent report from "Housing Europe" shows (2022).

Notably, with the exception of the Netherlands, buy-to-let RMBS issuers do not seek STS status. This again highlights the critical role that the state plays in shaping the dynamics of housing asset classes, as buy-to-let RMBS do not receive preferential regulatory treatment under Basel III Liquidity Coverage Ratio rules (as high quality, safe asset).

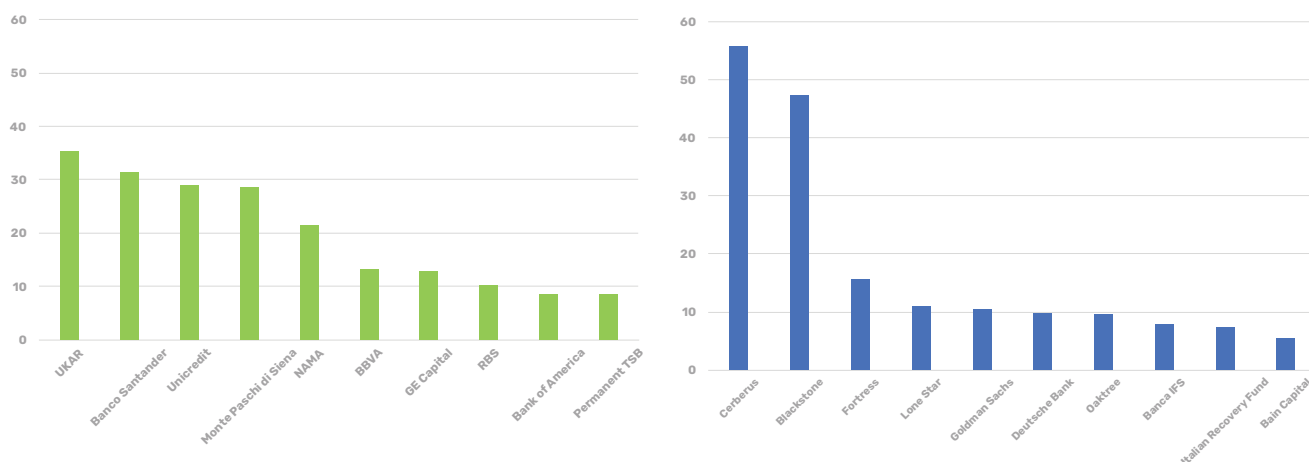
Securitization of Non-Performing Exposures (NPEs)

Additionally, the changing rules around the securitization of Non-Performing Exposures may impact the pace of mortgage loans securitization. Typically, banks dispose of non-performing mortgage portfolios through bilateral sales, either to private institutions that are interested in the housing collateral, or to the state (as in the case of Spain's SAREB or Ireland's NAMA 'bad housing banks'). In the wake of the COVID19 pandemic, the European Commission accelerated its pre-pandemic new plans for the securitization of NPEs, ostensibly to enable banks to clean their balance sheet at a faster pace and scale than through bilateral sales (see EBA 2019). But such plans may also enable securitizers of non-performing mortgages to tap into institutional cash pools with an appetite for risk exposures to housing assets.

The turn to securitization of NPE has the potential to hasten the liquidation of housing collateral, and the transition of residential housing into institutional portfolios. Indeed, the mortgages backing NPE securitizations are already defaulted, or deemed as defaulted. The cash flows for holders of NPE securitizations are generated through 'workout' – either negotiating with borrowers or enforcing the security (selling or auctioning the asset). The risk for investors in securitized non-performing mortgages is that the work-out process will not generate sufficient net value. Furthermore, because banks need to make a 'clean break' from the non-performing mortgages, they typically sell their non-performing loans to private equity or hedge funds who use securitization as a funding tool and will, typically, sell the senior tranche to other investors while retaining the junior and/or the mezzanine tranche (the higher risk ones) for themselves. The NPEs will typically remain on the SPV's balance sheet until the end of their workout.

A 2019 report of the European Banking Authority illustrates well the distinctive possibility that the European efforts to promote the securitization of non-performing loans may accelerate the shift of housing from retail ownership into institutional portfolio. The top sellers over the 2015-2019 period were commercial banks and public entities set up to manage the collapse of housing bubbles (see Figure 3.12). For example, the UK Asset Recovery Agency was tasked with returning the mortgage portfolios of Northern Rock and Bradford & Bingley into private ownership, as was NAMA in Ireland. Conversely, among the top buyers are investors with significant exposures to, and interest in, housing asset classes, such as Blackstone or Cerberus.

FIGURE 3.12: TOP SELLERS AND BUYERS OF NON-PERFORMING LOANS, 2015-2017



Source: compiled with data from EBA (2019)

https://www.eba.europa.eu/sites/default/documents/files/document_library/Opinion%20on%20the%20regulatory%20treatment%20of%20NPE%20securitisations.pdf

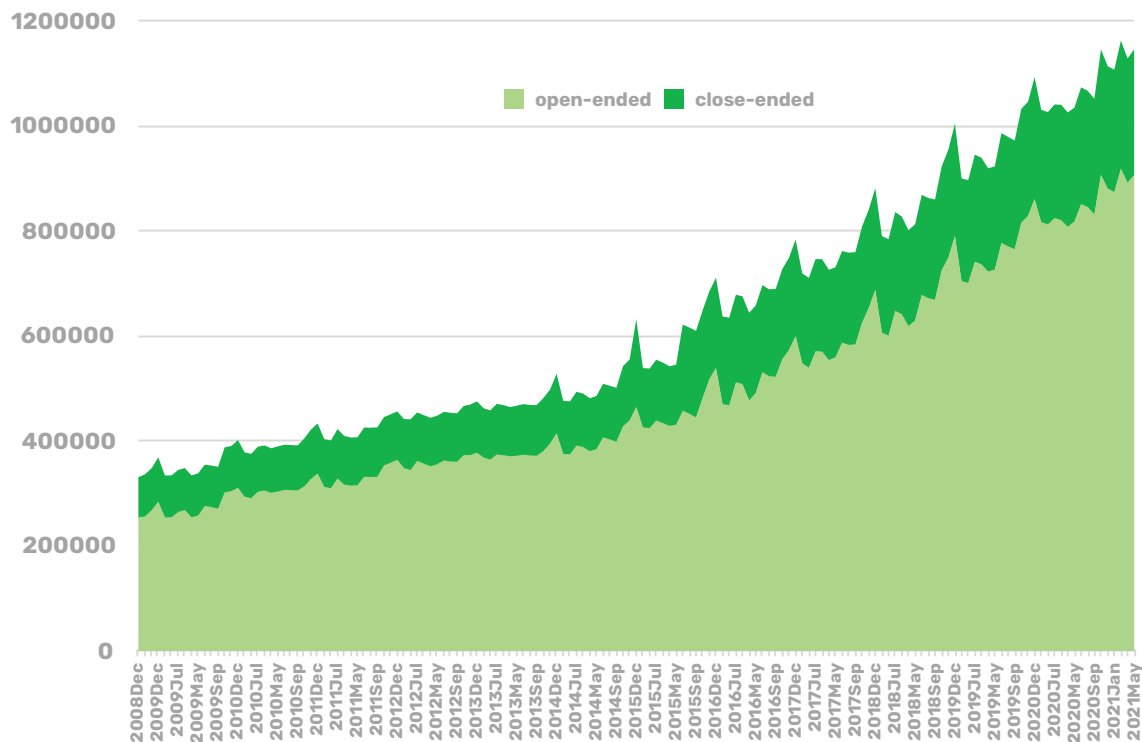
It is thus likely that the new securitization of NPE legislation approved by the European Parliament in 2020²⁰ – that relaxes the regulatory regime for servicers – will enable institutional landlords to increase their footprint in European housing markets, particularly if austerity returns in the wake of the COVID19 pandemic.

3.3 PRIVATE EQUITY REAL ESTATE (PERE) FUNDS

Real estate funds have grown rapidly over the past 10 years, driven by growing institutional demand. In the Euro area alone, data from ECB shows that real estate funds have reached EUR 1 trillion in 2021, from around EUR 350bn in 2010 (see Fig. 3.13). Around 80% of RE funds are *open-ended*: these raise capital from investors and allow redemptions throughout the life of the fund. In contrast, *closed ended funds* lock in real estate investment, and only allow investors – pension funds, charities, insurance companies, banks – to exit when the fund closes down or after a specified mandatory lock-in period. Private equity firms typically use both closed and open-ended funds, and these in turn often combine residential and commercial real estate but can target just residential assets. For example, Europa Capital had EUR 3.8bn real estate assets under management, in both commercial and residential housing. Of this, around 300 million were held through open-ended pooled funds and EUR 2.99bn through closed-ended pooled funds. Its top three investors were *pension funds (EUR 2.54bn)*, *charities (0.44bn)*, and *insurance companies (EUR 0.2bn)*.

²⁰ Private equity investors, however, tend to prefer that the servicer retain a percentage of the first loss piece as a more suitable way to show “skin in the game”.

FIGURE 3.13: **REAL ESTATE FUNDS: OPEN-ENDED VS CLOSED-ENDED, EURO AREA**
(ASSETS, MILLION EURO)

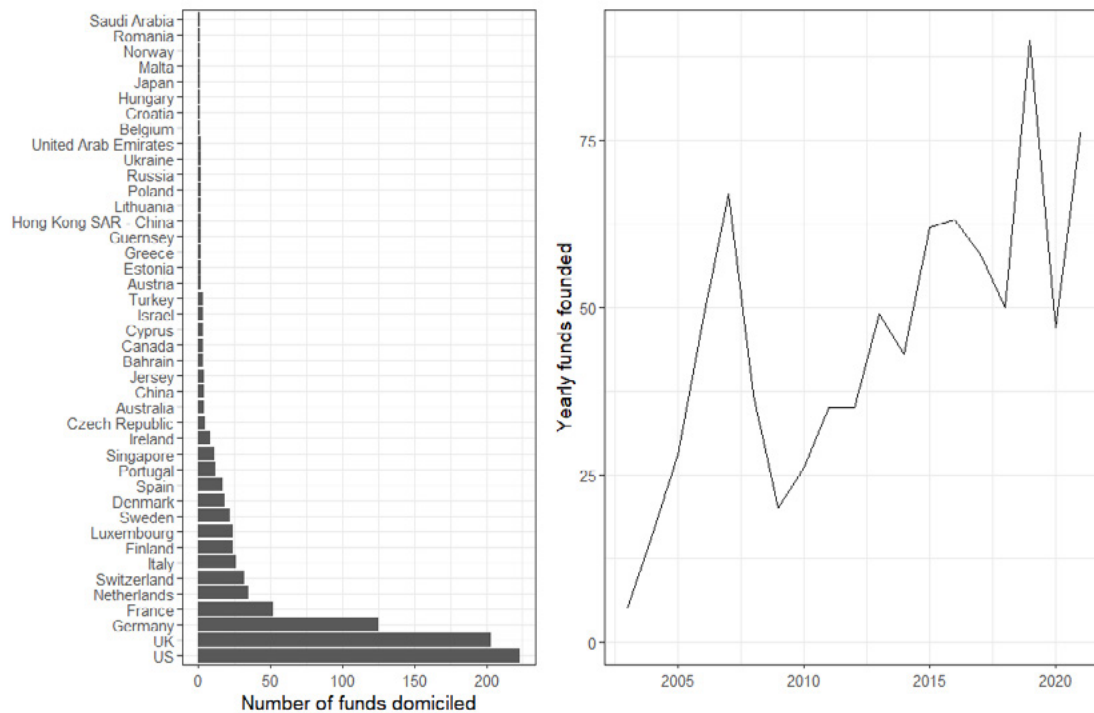


Source: compiled with data from the European Central Bank
https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=225.IVFM.U2.N.4A.T00.A.1.Z5.0000.Z01.E

While official statistics, such as the ECB Datawarehouse or Eurostat, do not provide a breakdown of residential housing assets in institutional portfolios, regulators now recognize that RE fund demand increases pressures on housing markets (ECB 2018²¹). Private data providers such as Prequin offer a broad overview of 892 funds investing in European residential real estate by 2021, 519 of which already closed and 144 open ended. Real estate funds invest in residential housing alone (about 200), or more frequently combine residential with other commercial estate (logistics, office, hotels). Since the 2000s, the newly set up funds show an increasing trend over time, only interrupted by the global financial and Corona crisis (cf. Figure 3.14). A majority of funds are legally domiciled in the US or UK, but German and French funds are quite sizeable. A minority of the funds invests in one country only, e.g. 134 invest in the UK only, 109 in Germany only, 27 in Italy, 25 in France and the Netherlands. More often, the funds' geographic exposure involves several countries or European regions (Nordics, West, South), Europe as a whole or even global regions among which Europe.

21 https://www.ecb.europa.eu/pub/economic-bulletin/articles/2018/html/ecb.ebart201807_02.en.html

FIGURE 3.14: RESIDENTIAL REAL ESTATE FUNDS BY COUNTRY OF ORIGIN AND VINTAGE YEAR

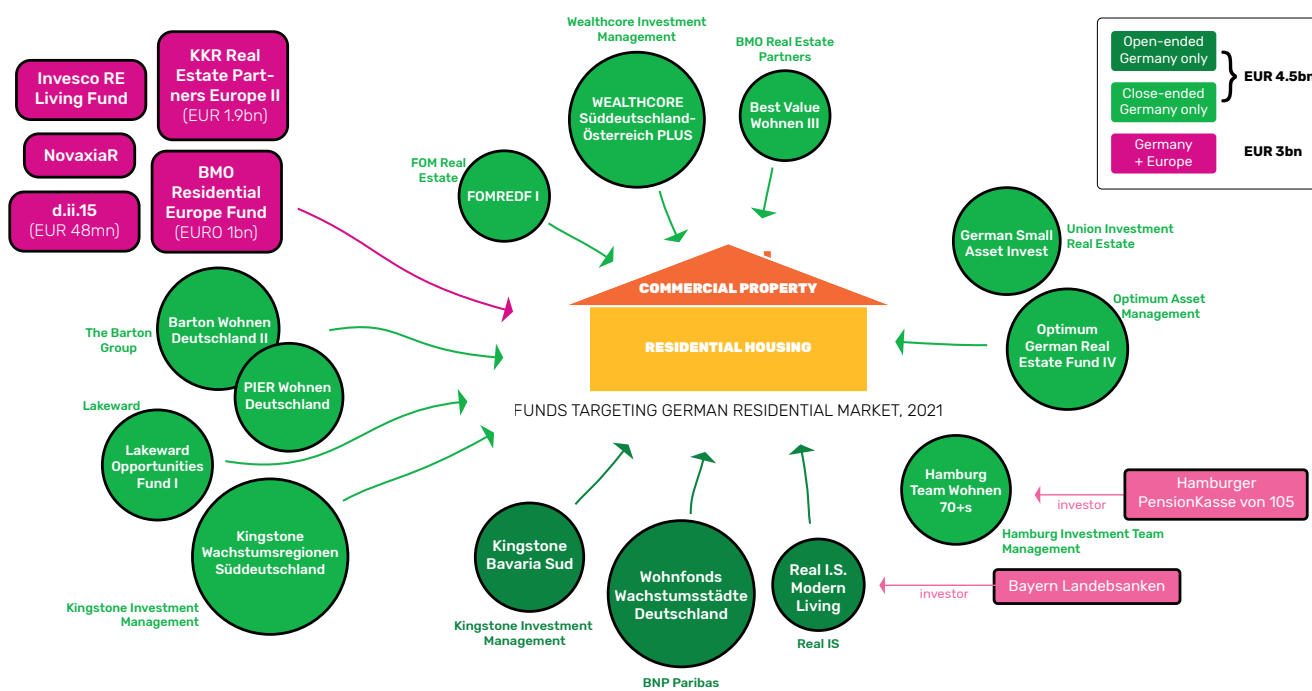


Source: Prequin 2021.

Significant institutional demand: the available fund data typically underestimates the pressures of institutional demand for residential housing across Europe. Take for instance Germany (see Figure 3.15). In August 2021, the Prequin database listed 13 funds, 10 closed-ended and 3 open-ended, with an overall EUR 4.5 bn ready to flow into German residential assets. On top of this, several Europe-wide funds that had initiated or closed in 2021 were searching for German residential assets to include in their portfolios, with an overall firepower of EUR 3.4bn. Additionally, there may be funds closed in previous years that have significant dry powder (resources not spent) ready to be deployed when deals are available, or open-ended funds (like Blackstone's) that include Germany in their geographical scope.

The example of KKR Real Estate Partners II Europe is instructive. It launched in March 2019 with a target of EUR 1bn to raise for investing in Hospitality, Logistics, Office, Residential, Student Housing. It closed in 2021 with an overall EUR 1.9bn value. Its known investors, collectively providing around EUR 200mn, are five New York City public pension funds (including firemen, teachers and police) and Maine's Public Employees Retirement System. By September 2021, the fund had closed 4 residential deals, three in Spain (total value of EUR 23 million) and one in Germany (7500 residential units across Germany, including Duisburg, Essen, Hagen, Magdeburg, Dresden and Halle/Leipzig). Furthermore, while large funds typically tap into US institutional appetite for European residential assets, local German investors can also represent a significant source of investment. For instance, the Real I.S. Modern Living fund is managed by Real I.S, a wholly-owned strategic holding of Bayerische Landesbank (BayernLB). Hamburg Investment Team Management, the manager of the fund Hamburg Team Wohnen 70+, counts the pension fund Hamburger PensionKasse von 105, the pensions management firm for Lindt, Kraft, Aldi, Coca-Cola Germany, Brandt, Bahlsen, REWE.

FIGURE 3.15: FUNDS TARGETING GERMANY'S RESIDENTIAL HOUSING, 2021



Source: compiled with data from Preqin.

There is an important distinction between real estate funds and Real Estate Investment Trusts (REITs). REITs are publicly-traded stocks and are in theory more liquid (see Table 3.1) – though in practice, there are numerous examples of illiquid European REITs issued in Ireland or Spain by private equity companies to take advantage of tax regimes. Open-ended RE funds allow redemptions, whereas closed-ended funds are illiquid, locking investors in for specified periods of time.

TABLE 3.1: PRIVATE EQUITY REAL ESTATE FUNDS VS PUBLIC EQUITY

	Investors	Investment strategy	Funding	Tax regime
Private equity real estate funds	Institutional investors (pension funds, insurance companies, endowments, high net worth individuals)	initial capital contribution, 1-2% management fee and performance-based compensation profit returned over a period of time open-ended: redemptions allowed (liquidity)	*capital raised through combination of equity and debt (leverage) *usually with specific fundraising goal outlined in advance and deadlines for when funds can be accepted.	Long-term capital gains tax
Public equity	Any investor with brokerage account	1. REITs 2. Shares of listed real estate companies 3. ETFs	National regulatory regimes (limits on debt for REITs)	REITs enjoy preferential tax regimes (see below)

Private equity funds are key actors in the ecosystem of institutional HAC chains. Out of EUR 81.5 bn PERE deals closed in 2019 (see Figure 3.17), residential housing amounted to around EUR. 4.4 bn (see Figure 3.16). Capturing the significant appetite for residential housing despite the shock of the COVID19 pandemic and the success of public support measures for housing, residential housing attracted around EUR 5bn in private equity deals in 2020, and around EUR 5bn in the first half of 2021.

FIGURE 3.16: PERE DEALS IN EUROPE BY PROPERTY TYPE

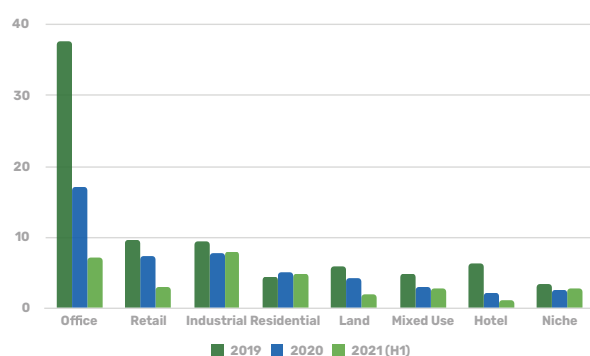
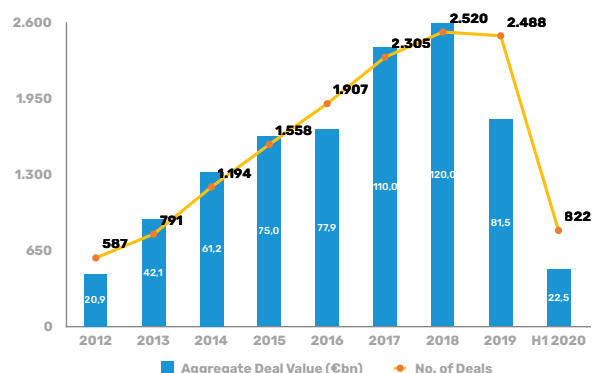


FIGURE 3.17: PERE DEALS IN EUROPE, 2012-2020



Source: compiled with data from Preqin, 2021.

Behind this rapid increase in PERE funds in Europe lies a highly concentrated market structure. Out of the EUR 167bn raised between 2010 and 2020 by the top 20 fund managers, the top 4 – Blackstone, Patrizia, Lone Star Funds and Amundi – account for 50% (Table 3.2). Note that by mid-2021, these fund managers had significant estimated dry powder in commercial and residential properties.

TABLE 3.2: LARGEST FUND MANAGERS BY CAPITAL RAISED FOR EUROPE-FOCUSED PERE FUNDS, 2010-2020

RANK	FIRM	HEADQUARTERS	TOTAL CAPITAL RAISED IN PAST 10 YEARS (€BN)	ESTIMATED DRY POWDER (€BN)
1	Blackstone Group	New York, US	25.8	9.2
2	PATRIZIA	Augsburg, Germany	23.7	2.1
3	Lone Star Funds	Dallas, US	19.9	7.0
4	Amundi Platform of Alternative and Real Assets	Paris, France	12.7	1.0
5	AXA Investment Managers	Paris, France	11.5	1.4
6	PGIM Real Estate	Madison, US	7.0	0.7
7	Apollo Global Management	New York, US	6.3	1.2
8	AEW	Paris, France	6.0	0.8
9	CBRE Global Investors	Los Angeles, US	5.7	0.4
10	ICG	London, UK	5.5	1.3
11	Partners Group	Zug, Switzerland	5.5	1.7
12	ARA Venn	London, UK	5.4	1.3
13	Tristan Capital Partners	London, UK	5.2	1.5
14	Aermont Capital	London, UK	4.8	2.1
15	LaSalle Investment Management	Chicago, US	4.1	1.2
16	BentallGreenOak Europe	London, UK	4.0	1.0
17	Ares Management	Los Angeles, US	3.7	1.3
18	Cale Street Partners	London, UK	3.7	1.6
19	Prologis	San Francisco, US	3.6	0.2
20	NREP	Nordhavn, Denmark	3.4	1.6

Source: Preqin data

Private equity firms/funds raise capital from institutional investors such as public and private pension funds, endowments, insurance companies, fund of funds, and high net worth individuals.

Real estate funds are attractive for institutional investors because of the promise of high yield, particularly where the funds are leveraged. On the asset side, funds can either directly own rental housing, for which they often partner with local real estate companies to source residential asset²², or invest indirectly by purchasing shares in housing companies. On the liabilities side, funds can have different financing models: from open-ended vehicles with no debt financing, to funds with high gearing (debt to equity ratio).

Consider the Blackstone Property Partners Europe fund. This is an open-ended fund that owns directly residential assets in Germany and the Netherlands via the perpetual life investment vehicle Blackstone Property Partners Europe Holdings. BPPEH raises capital from (mostly) US pension funds and insurance companies, and additionally relies on debt financing by issuing unsecured notes and borrowing from banks. An aggressive growth strategy, driven by growing institutional appetite for housing and other RE asset, saw BPPEH's portfolio nearly double in two years, to EUR 7.8 bn (gross asset value) composed of 6.399 residential units valued at Euro 1.9 billion, EUR 4.6 bn in logistics assets and EUR 1.2 bn in offices.

22. For example, Europa Capital announced in May 2021 that it would partner with local real estate company Skjerven Group to invest EUR 150million in residential assets in Berlin. Besides asset management, Skjerven Group would also source the residential assets for the private equity fund.

BOX 1: BLACKSTONE PROPERTY PARTNERS EUROPE FUND

Blackstone is one of the largest institutional landlords in Europe. At the end of 2020, it held 117,000 residential units across Europe through various investment vehicles. One such perpetual life investment vehicle, Blackstone Property Partners Europe Holdings, held 6,399 units in Germany and Netherlands (largely in Berlin and Amsterdam), at the end of 2020. BPPEH is entirely owned by Blackstone Property Partners Europe (BPPE), an open-ended fund launched in 2017. This is one of the 47 funds that Blackstone managed at the end of 2021 (with fire power estimated by Preqin at around USD 127bn, a conservative estimate given that several funds do not list size) Of these, 13 funds focused on Europe as the primary region for investment in commercial and residential property.

BPPE invests in multi-family, retail, office, and industrial properties across Europe. It uses leverage to enhance returns, with a 50% leverage limit. It allows investors to make contributions and request redemptions on a quarterly basis. According to Preqin data, BPPE has 8 known investors (public pension funds and one insurance company). Of these, four public pension funds contributed USD 1.46 bn.

CalPERS - California Public Employees' Retirement System (US)	Public Pension Fund	USD 750 million committed
California State Teachers' Retirement System (US)	Public Pension Fund	USD 470 million
Illinois Municipal Retirement Fund (US)	Public Pension Fund	USD 166 million
Illinois State Board of Investment (US)	Public Pension Fund	USD 75 million
Regents of the University of California (US)	Public Pension Fund	unknown
Amitim (Israel)	Public Pension Fund	unknown
University of Quebec Pension Plan (Canada)	Public Pension Fund	unknown
Fidelity & Guaranty Life Insurance Company (US)	Insurance company	unknown

BPPEH is the primary investment company for BPPE. Besides capital (1.5bn) and loans from affiliated undertakings (USD 1.8 bn), BPPEH issues debt (unsecured notes at USD 3.47 billion) to finance its portfolio of real estate. Thus, an institutional investor such as CalPERS can be exposed to a Blackstone HAC either by investing with BPPE fund, or by purchasing unsecured notes issued by BPPEH.

At the end of June 2021, the investment managed a portfolio of EUR 7.8 bn (gross asset value) composed of a 6,399 unit residential portfolio valued at Euro 1.9 billion, EUR 4.6 bn in logistics assets and EUR 1.2 in offices. Its portfolio nearly doubled in two years: in June 2019, BPPEH held EUR 4bn in RE assets, of which EUR 1.1 bn was represented by 4,600 residential units in Berlin.²³

²³ <https://bppeh.blackstone.com/wp-content/uploads/sites/9/2021/06/BPPEH-Investor-Presentation-Jun-2021.pdf>

The specific liability structure of the real estate fund matters in terms of the regulatory treatment of their institutional investors, particularly insurance companies and pension funds. This is framed through an approach where there is a risk to portfolios – as opposed to risks to tenants – since highly-leveraged private equity funds are exposed to the risk that property values will decrease, that rents fall, or that interest rates increase.

The funding structure plays an important role in yield targets for private equity funds. This has consequences for tenants' vulnerability, including its spending on services and maintenance, and its rents. It also renders alternative asset managers important actors in housing legislation. They actively, and often successfully, oppose rent controls or legislation that would mandate institutional landlords to allocate a share of their housing portfolios to social housing. In the debates around Spain's new Housing Laws in early 2021, Blackstone, Spain's largest landlord with 40.000 housing units, opposed plans for a 30% target for social housing in institutional portfolios, arguing that the provision of social housing was entirely the domain of the state, and that policies to involve institutional landlords should take the form of private-public partnerships, where the state subsidizes rather than mandates the private provision of social housing²⁴.

The growing importance of institutional landlords renders a European level HAC regulatory regime a high priority. Take for instance the PERE funds closed in the first half of 2020 (see Table 3.3). Collectively, the funds raised over USD 16bn, with all those above EUR 1bn managed by US firms, led by Blackstone's Real Estate Partners Europe VI at USD 10.6bn, far larger than the rest of the top 5 funds. These PERE funds can include commercial estate and residential housing or focus on specific sectors. While data constraints render it difficult to precisely capture the share of residential housing in PERE portfolios, the funds mobilize significant resources, and their ability to increase their housing assets is constrained by the availability of residential housing at scale.

24 <https://elpais.com/economia/2021-02-02/blackstone-recuerda-a-podemos-que-el-alquiler-social-es-responsabilidad-de-las-administraciones-publicas.html>

TABLE 3.3: TOP 10 PERE FUNDS CLOSED IN 2020

Rank	Fund	Firm	Headquarters	Fund Size (m)	Final Close Date
1	Blackstone Real Estate Partners Europe VI	Blackstone Group	US	USD 10,639	Apr-20
2	AG Europe Realty Fund III	Angelo, Gordon & Co	US	USD 1,500	Jul-20
3	BlackRock Europe Property Fund V	BlackRock	US	EUR 1,290	May-20
4	PATRIZIA TransEuropean Property VII	PATRIZIA	Germany	EUR 750	Jul-20
5	Pictet Real Estate Capital-Elevation I	Pictet Alternative Advisors	Switzerland	EUR 700	Feb-20
6	Azora European Hotel & Lodging	Azora	Spain	EUR 680	Jul-20
7	Tikehau Real Estate Opportunities	Tikehau Capital	France	EUR 560	Feb-20
8	AREIM Fund IV	AREIM	Sweden	SEK 5,600	Jan-20
9	TSC Eurocare Real Estate Fund	Threestones Capital	Luxembourg	EUR 450	Mar-20
10	Global Real Estate Debt Partners - Fund II (UK)	Nuveen	US	GBP 351	Jan-20

In the top 10 funds in the market in 2020, with an aggregate purchasing power of well over EUR 16 bn, the European Residential Income Fund II, managed by Round Hill Capital, exclusively targets European residential housing (see Table 3.4). Round Hill Capital manages around 135,000 residential units around Europe. It expands its residential portfolio by buying existing houses or by developing new ones, often in partnership with real estate developers or with other PE investors.

For instance, Round Hill Capital ERIF II fund acquired a 1,000 unit housing portfolio in Germany from Orlando Real Berlin, in Halle and Magdeburg in 2020. For its three multifamily deals in the Netherlands, ERIFII additionally relied on a secured loan from ING Bank²⁵[3]. There, it also plans to build 1,075 residential units in a 6,000 new residential units rental and owner-occupied sustainable living project. This will add to its 16,000 unit portfolio in Holland. While it claims that rental properties will be offered in the social, middle rent and free sector segment, and that homes have been designed to be both high-quality and highly sustainable, it is unclear how much of its new build will be assigned to social housing.

25 <https://www.globallegalchronicle.com/round-hill-capitals-european-residential-income-fund-iis-eur-52-3-million-real-estate-acquisitions/>

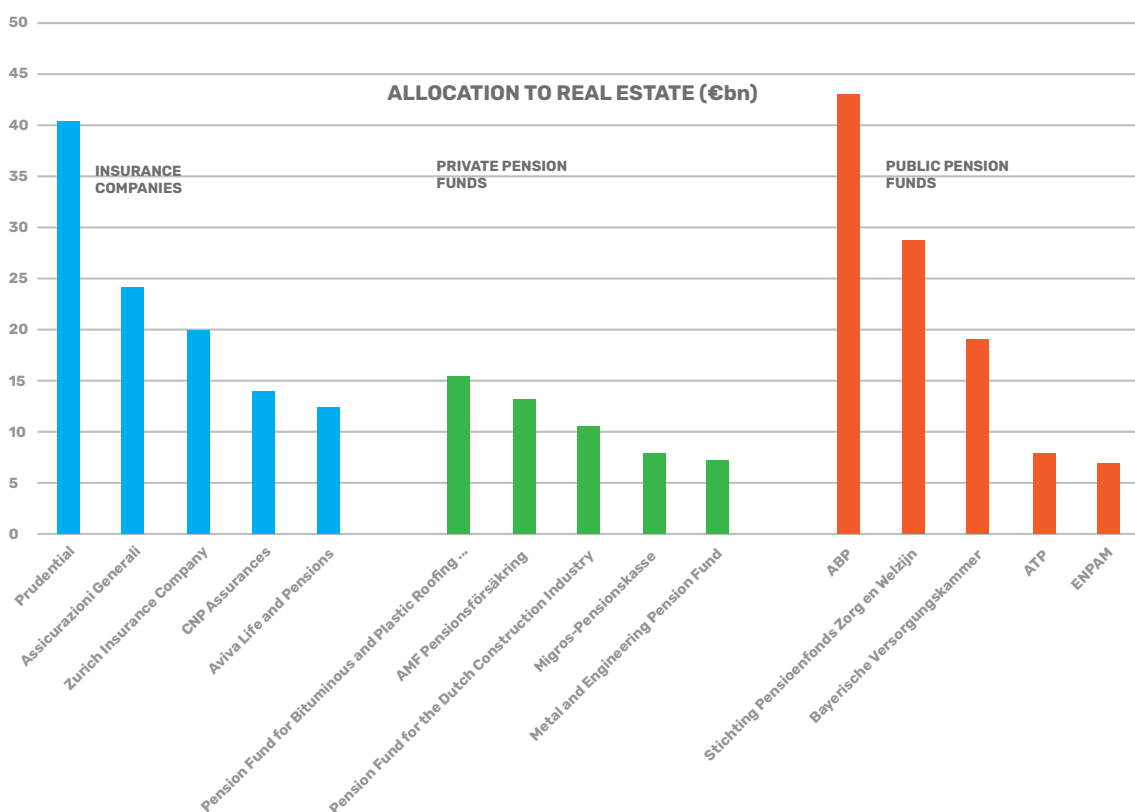
TABLE 3.4: LARGEST EUROPE-FOCUSED PRIVATE REAL ESTATE FUNDS IN MARKET (JULY 2020)

RANK	FUND	FIRM	TARGET SIZE (MN)	GEOGRAPHIC - FOCUS
1	Generali Europe Income Holding	Generali Real State	EUR 4,000	Europe, Nordic
2	Partners Group Real State Opportunities 2019	Partners Group	USD 3,000	Global
3	Next Estate Income Fund III	BMP Paribas Real Estate Investment Management Luxembourg	EUR 1,800	Europe
4	European Residential Income Fund II	Round Hill Capital	EUR 1,500	Europe
5	AXA Logistics Europe Fund	AXA Investment Managers	EUR 1,400	Europe, Western Europe
6	NREP Nordic Strategies Fund IV	NREP	EUR 1,250	Europe, Nordic
7	Hines European Value Fund 2	Hines	EUR 1,250	Europe
8	Henley Secure Income Property Unit Trust	Henley Investment Management	GBP 1,000	UK
9	Ardian Real Estate European Fund II	Ardian	USD 1,250	Western Europe
10	Valesco European Fund I	The Valesco Group	EUR 1,000	Europe

Source: Preqin, 2021.

Finally, it is important to note that the largest investors in private equity funds targeting real estate, including residential housing, are insurance companies and pension funds. The largest allocation to real estate from European institutional investors comes from the Dutch public pension fund ABP, which manages the contributions of employees in the government and education sector (see Figure 3.18). Of its EUR 344 bn of assets under management, around EUR 43bn, or 10% of total assets, are in real estate, including residential housing. The second largest, the PFZW, is the collective pension scheme for the care and welfare sector.

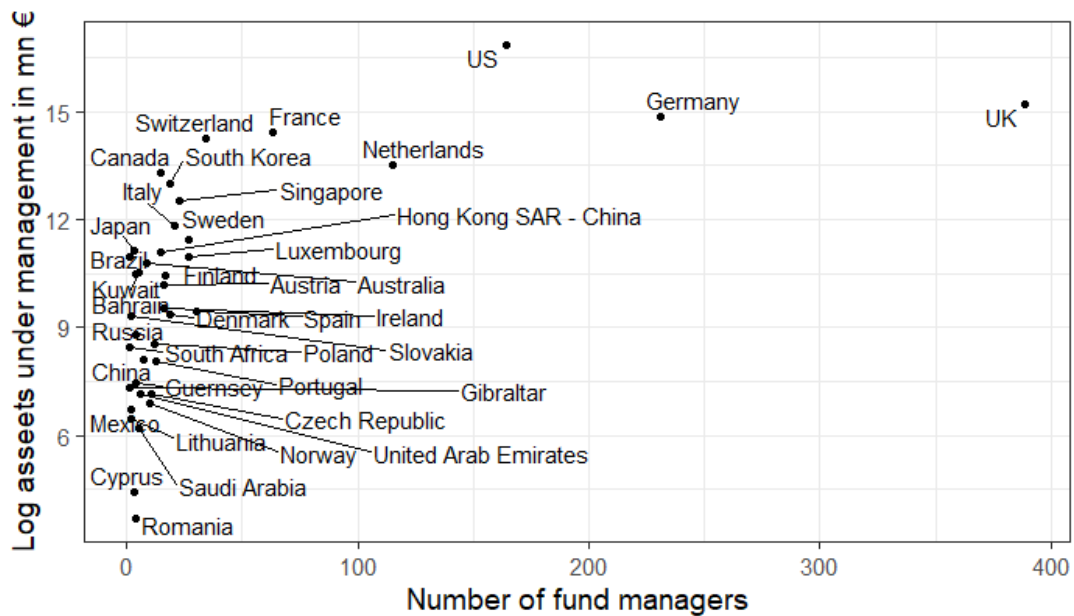
FIGURE 3.18: TOP 5 INVESTORS IN PERE FUNDS, BY CATEGORY (2020)



Source: compiled with data from Preqin 2021

Private real estate funds are managed by an industry of fund managers and professional real estate firms. The Preqin database lists 1,422 of these firms actively managing funds investing in Europe in the residential sector, the great majority of which being proper real estate firms (the biggest by staff being: PAREF GESTION, Greystar Real Estate Partners and Lincoln Property Company), a minority of which, although among the biggest fund managers, being CBRE Global Investors, Credit Suisse, Brookfield Asset Management, Morgan Stanley and BlackRock. Most of the fund managers are independent firms, but some of the biggest are also captive arms of banks or of corporates. Few fund managers focus on single country asset management only (214 only in the UK, 171 only in Germany, 75 only in France, 32 only in the Netherlands), with the great majority managing real estate across many jurisdictions and globally. Only 95 specialize in residential real estate (including multi-family and apartment) only, the great majority is managing properties in all sectors (office, retail, industrial, logistics, site development, etc.). The total assets under management of these fund managers (including their non-residential and non-European assets) amounts to 1.8 trillion Euro by 2021 and broadly reflect the countries where the funds themselves are domiciled: the UK, Germany and the US, followed by France and the Netherlands (cf. Figure 3.19).

FIGURE 3.19: **FUND MANAGERS BY NUMBER OF FUNDS AND ASSETS UNDER MANAGEMENT**



Source: Preqin 2021

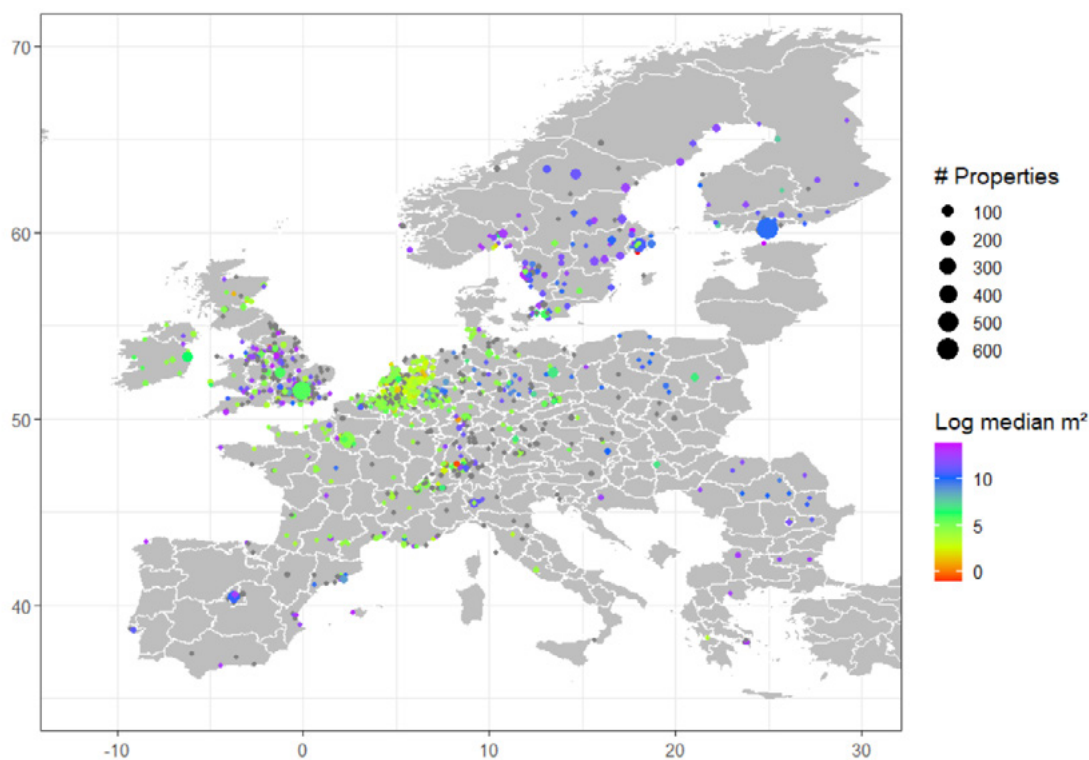
3.4 PUBLIC EQUITY: REITS IN SPAIN AND IRELAND

Investors can gain exposure to residential housing through three public equity instruments: REITs, the shares of real estate companies, and Exchange Traded Funds (ETFs). A REIT is a company that owns and/or manages residential housing. REITs are listed on stock exchanges and allow equity investors exposure to a portfolio of housing assets. More liquid than private equity, REITS pay dividends to shareholders.

Geographically speaking, both residential and non-residential REITs' properties are generally scattered across Europe, but have a rather stronger presence in larger metropolitan areas and in

countries with a longer tradition in these financial instruments. Figure 3.20 displays the number of properties and their median size (in log square meter of the average property) by city across Europe, which reveals a clustering of both number and size of properties in the larger cities and particularly in the North-Western parts of the Union.

FIGURE 3.20: DISTRIBUTION OF REITS' PROPERTIES ACROSS EUROPEAN CITIES



Source: Moody's REITs database

Historically, REITs were first introduced in the US and Canada, enjoying preferential tax treatment to allow smaller investors to gain exposure to housing assets. Canada's first REIT, CAPREIT took 18 years from its creation in 1998 to become the largest landlord in Toronto. CAPREIT is also the sponsor of the Irish IRES REIT, the largest residential REIT in Ireland.

REIT tax regimes are decided at national level in the European Union. Take Spain and Ireland. Irish REITs have a light regulatory regime and are not subject to corporate tax on income and capital gains from property rental. Resident shareholders are liable to income tax and to capital gains tax and a (small) stamp duty tax when they dispose of shares in a REIT²⁶. Spanish REITs legislation was first approved in 2009, with the twin aims of reviving the rental housing market, deeply affected by the housing bubble burst, and of encouraging institutional investment in housing. Initially, the REIT tax regime included an 18% corporate tax, in addition to restrictions on indebtedness and listing. Confronted with a lack of institutional interest, the Spanish government then further re-

²⁶ Irish resident shareholders in a REIT will be liable to income tax on income distributions from the REIT plus PRSI and USC. Irish resident corporate investors will be liable to 25% corporate tax on such distributions. Irish resident investors will be liable to capital gains tax at a rate of 33% on a disposal of shares in the REIT. Non-resident investors will not be liable to Irish capital gains tax because the REIT is a publicly listed company. However, the investors may be liable to such taxes in their home jurisdictions. In relation to dividends, it is intended that the REIT will apply dividend withholding tax (DWT) at the rate of 20% from income distributions to non-residents. Certain non-residents may be entitled, under their tax treaties, to recover some of this DWT from Ireland or otherwise should be able to claim a credit for DWT against taxes in their home jurisdictions. Certain Irish resident pension funds, insurance companies and other exempt persons will be exempt from DWT. The transfer of shares in the REIT will be subject to 1% stamp duty.

laxed the REIT rules in 2012, most importantly eliminating the corporate income tax and the limits on indebtedness, while allowing REIT issuers a two-year period between inception and listing on either regulated or alternative markets.

FIGURE 3.21: REITS LEGAL REGIMES IN IRELAND AND SPAIN

Qualification as a REIT

In order to qualify for the REIT tax regime, a REIT must:

- 1 Be resident in Ireland and not resident elsewhere
- 2 Be incorporated under Irish Companies Acts
- 3 Be a listed quoted company which is traded on a main Stock Exchange in an EU Member State*
- 4 Not be a close company (subject to certain 'good shareholder' exceptions)
- 5 Derive at least 75% of its profits from the carrying on of a property rental business*
- 6 The business must consist of at least three properties, no one of which must be more than 40% of the total
- 7 Maintain a 1.25:1 ratio of income to financing costs
- 8 Hold at least 75% of its assets, by market value, in its property rental business
- 9 Maintain a loan to value ratio of not more than 50%, and
- 10 Distribute at least 85% of its income by way of dividend to its shareholders (income does not include capital gains)

*Several of the requirements above are subject to being met within a 'grace period' of 3 years and provisions entitle a REIT to work with the Revenue Commissioners to remedy certain temporary breaches.

REGIME OF SOCIMIs

	Law 11/2009 of 26 of October 2009	Law 16/2012 of 27 December 2012
Legal regime	Minimum share capital of €15 million Borrowed funds not more than 75% of assets (a) Listing in regulated markets of the EU or the EEA	Minimum share capital of €5 million No limit on indebtedness Listing in regulated or alternative markets of the EU, the EEA or any country with which there is an effective exchange of tax information
Investment requirements	Investment property (b) + equity holding (c) minimum of 80% of assets (a) Lease income + divided income (c) minimum of 80% of total income(d) Minimum three-year duration of property investments (e) (seven years if developed by SOCIM) Minimum of three immovable properties	Unchanged Unchanged Minimum three-year duration of property investments (e) (seven years if developed by SOCIMI) Minimum of one immovable property
Fiscal regime	Corporate income tax rate of 18% Exemption equivalent to 20% of housing rental income (if housing investment accounts for more than 50% of assets) (a)	Income not subject to corporate income tax (0%), but dividend payments to shareholders are taxed at 9%
Distribution of income	Rental and other similar income: minimum of 90% Transfer of immovable property and equity holdings: minimum 50% Dividends from equity holdings: 100%	Rental and other similar income: minimum of 80% Unchanged Unchanged

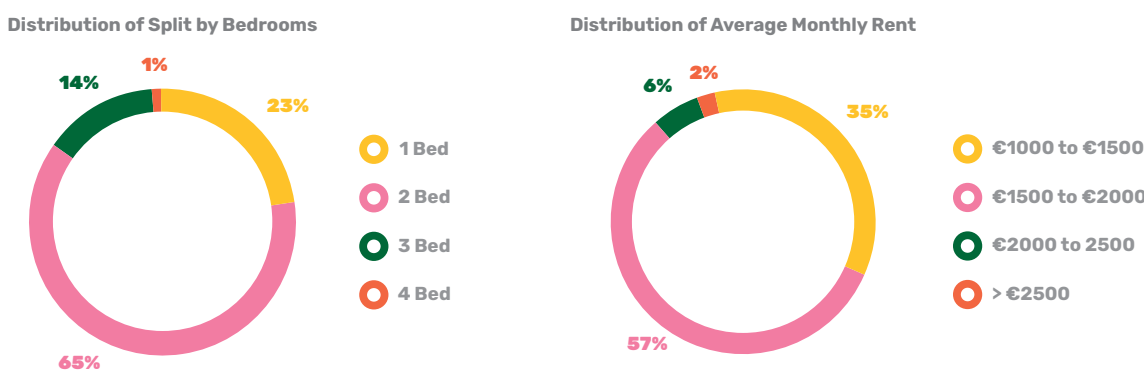
Source: (Banco d'espana, García-Vaquero and Roibás 2020) for Spain, and <https://assets.kpmg/content/dam/kpmg/ie/pdf/2017/09/ie-reits-july-2017.pdf> for Ireland

European residential REITs have been important beneficiaries of the state's attempts to clean up after housing crises. In Ireland, the largest corporate landlord I-RES REIT acquired half of its properties from NAMA, the National Asset Management Agency, set up to deal with the non-performing property loans acquired from Irish banks (Lima 2020).

The Irish I-RES REIT had 3,688 units across 35 properties, with the majority consisting of 2 and 3-bedroom apartments and houses, at the end of 2020. Until March 2021, it was managed by Ires Fund Management, owned by the Canadian group CAPREIT SA, that set up and floated I-RES on the Dublin stock exchange in 2014. I-RES REIT paid EUR 20 million in management fees, out of EUR 74 million in revenue from investment properties in 2020. Around 60% of its housing units consisted of 2-bedroom flats, while the average monthly rent for 65% of its properties ranged between EUR 1,500 and EUR 2,000 a month (see Figure 3.22). The institutional landlord has been the target of protests from housing associations for its ‘escalating rents’ policies and its dominance of the supply-constrained Irish housing market²⁷.

Despite significant public pressure, the new Irish housing laws introduced in May 2021 to improve housing availability provided moderate support for curbing the influence of institutional investors in housing. The government introduced a ‘owner occupier guarantee’ that mandates developers to allocate 50% to owner occupiers but did not include buy to rent apartments in the scope of the increase on stamp duty on the purchase of 10 or more units.

FIGURE 3.22: IRES REIT IRELAND – PORTFOLIO AND AVERAGE RENT



Source: IRES REIT Annual Report (2020), available at <https://www.iresreit.ie/sites/ires-ir/files/reports-presentation/reports-and-presentations/IRES%20REIT%20AR2020.pdf>

In Spain, the authorities created SAREB as a bad bank to deal with the non-performing housing loans of the Spanish banking system, as a condition of the Memorandum of Understanding with the EU. SAREB took on its balance sheet around 57,000 housing units, alongside other commercial real estate, becoming the largest real estate company in Spain²⁸. Its set-up and strategy in the decade since its creation demonstrate the significant fiscal constraints that European level rules create for the ability of the state to manage the fallout from a housing crisis, and the ensuing structural pressures that reinforce HAC as the only viable ‘solution’.

SAREB was set up as a partnership between the state and private banks, with the state originally contributing 45% of the EUR 1.2 capitalization. This allowed the Spanish state to avoid identifying SAREB as a public institution, and to avoid including its debt into the overall public debt figures. To acquire the financing necessary to take over the non-performing loans valued at EUR 51 bn (a

27 <https://www.irishtimes.com/news/social-affairs/dublin-tenants-group-protests-outside-ires-reit-offices-1.3144477>

28 https://www.eldiario.es/opinion/tribuna-abierta/sareb-estafa-siglo_129_7351095.html

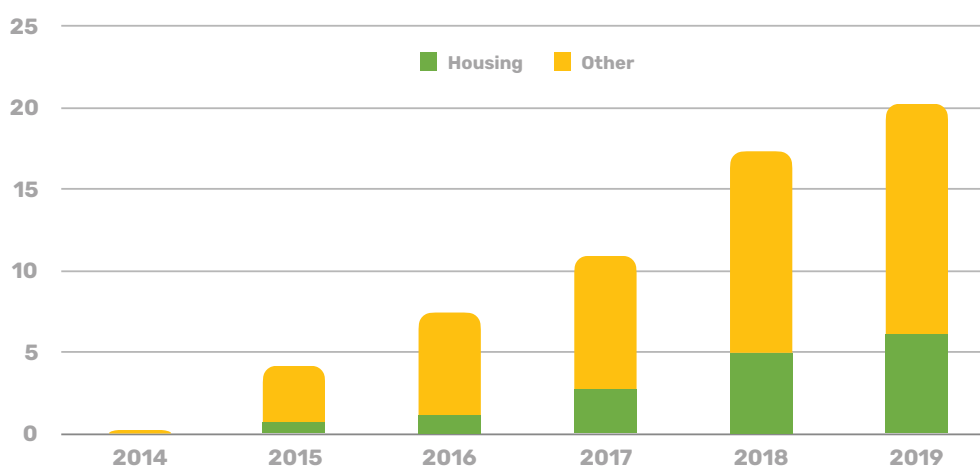
contested valuation), SAREB issued EUR 50.78 bn in bonds. In 2020, Eurostat decided to include the remaining EUR 35 bn debt and the losses in the public debt figures.

SAREB set up Tempore Properties in 2017, a Real Estate Investment Trust (“Socimi”) listed on Madrid’s Alternative Stock Exchange (MAB) with a portfolio of more than 2,200 residential rental units located in major cities across Spain, including Madrid, Barcelona, and Valencia. SAREB then sold 75% of its stake in Tempore to TPG Real Estate Partners (“TREP”), the real estate equity investment platform of the alternative asset firm TPG, in 2017.

SOCIMIs can either hold only housing assets or residential housing can be as part of a broader portfolio. Those with exposure to housing are listed on MAB, where the share of housing assets in total SOCIMI real estate assets increased from 20% in 2015 to around 43% in 2019, the equivalent of EUR 6bn. The housing in SOCIMI portfolios accounted for 0.1% of the estimated housing stock owned by households and around 1% of the main dwelling rented housing stock.

Remarkable however, *over 90% of the SOCIMIs shares are held by the parent or controlling group, so that only 6% are available for trading.* Such reduced liquidity suggests that institutional investors use SOCIMIs as a vehicle to minimize the tax burden.

FIGURE 3.23: REAL ESTATE ASSETS, SOCIMIS LISTED IN ALTERNATIVE MARKETS (EUR BN)



Source: data from (García-Vaquero and Roibás 2020)

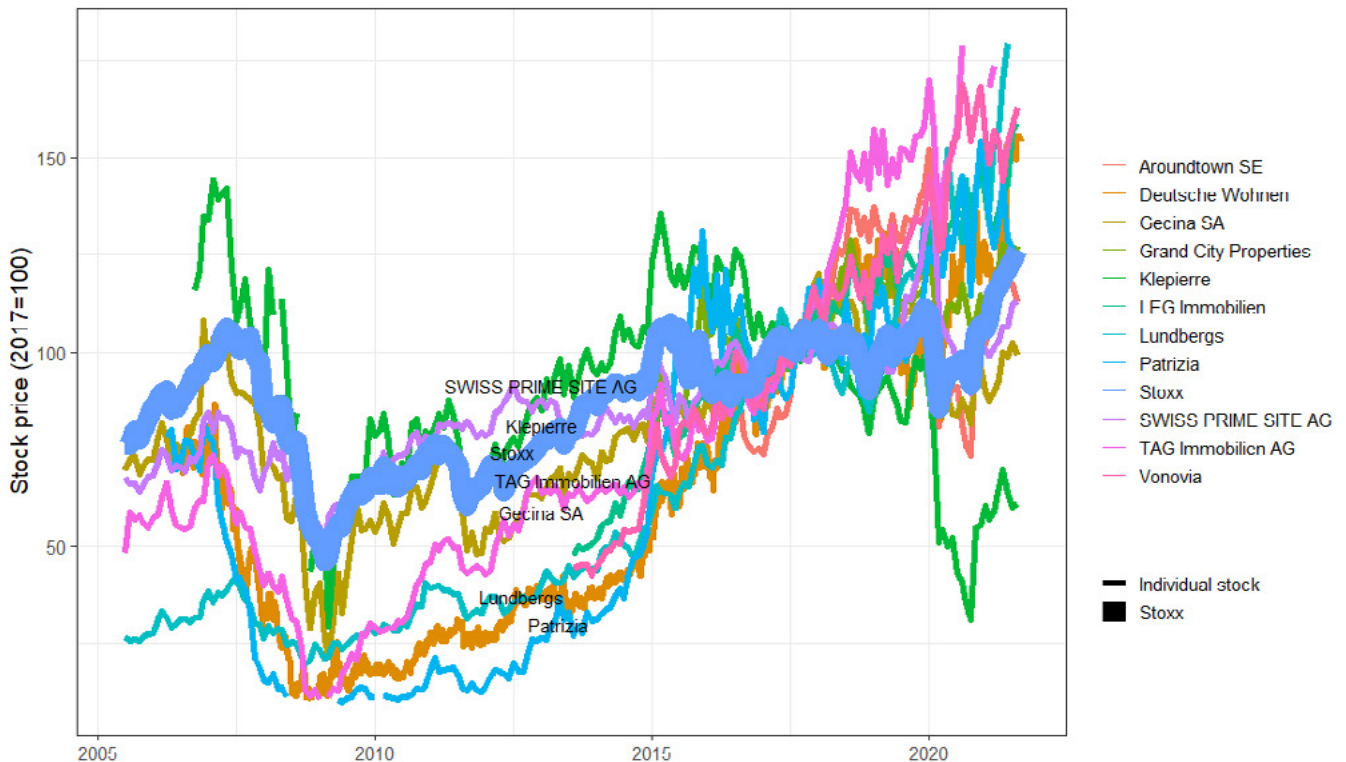
Blackstone, Spain’s largest institutional landlord, accounts for around 40% of all rental housing held in institutional portfolios in Spain and holds most of its portfolio of 40,000 housing units through SOCIMIs. It acquired the majority stake in Spain’s largest residential SOCIMI, TESTA Residential in 2018, from Banco Santander, S.A., Banco Bilbao Vizcaya Argentaria, S.A. (and other entities of its group) and Merlin Properties SOCIMI, S.A. At the time, TESTA was valued at EUR 1.9bn, and was managing around 10,000 units across Spain. Since the REIT passed into Blackstone’s control, its shares have been seldom traded while its housing stock increased to 20,000 units. Its Albirana Properties SOCIMI controls nearly 10,000 units, Torbel Investments 2,170; and Euripo

1.569²⁹. Furthermore, y firms like Blackstone can use PERE funds to tap institutional investors and then deploy those resources to take REITs private. For example, having raised €9bn from largely US-based public and private sector pension funds in 2020, Blackstone RealEstate Partners Europe VI took the Western Europe-focused (Canada-listed) Dream Global REIT (focused on offices) private in a 4.2bn deal.

3.4 PUBLIC EQUITY: LISTED REAL ESTATE COMPANIES

REITs are not the only form of real estate publicly listed, real estate companies owning and/or managing residential and other real estate are also listed. The largest companies by stock market capitalization in Europe (Figure 3.24) are listed in the countries' main stock indices and total real estate capitalization amounted to USD 564 bn in 2019, with Germany, the UK and then Sweden making up the largest stock markets for real estate.³⁰ This predominantly commercial real estate still makes up only a fraction of less than 5% of the countries' total real estate value, whereas some big players such as the two German companies Vonovia and Deutsche Wohnen are strongly in residential real estate. The biggest companies have largely underperformed the European Stoxx index following the Global Financial crisis and have taken about a decade to catch up with average stock development. Since about 2018, the sector has started to outpace the market.

FIGURE 3.24: STOCK PRICES OF MAJOR EUROPEAN REAL ESTATE COMPANIES AND THE STOXX



Source: Yahoo-finance on individual stock quotations (<https://finance.yahoo.com/quote>)

29 <https://murciaeconomia.com/art/77136/quienes-son-los-grandes-caseros-de-espana>

30 https://prodapp.epra.com/media/EPRA_Total_Markets_Table_-_Q4-2019_1580381101760.pdf

BOX 2: PATRIZIA SA EUROPEAN REAL ESTATE INVESTMENT MANAGER

Patrizia provides direct and indirect investments in residential and commercial properties in Europe and worldwide. Its residential assets account for 11.4 billion euros out of EUR 48 bn assets under management. PATRIZIA is listed on Deutsche Börse AG and member of the SDAX, DIMAX, MSCI World Small Cap and other indices. At the end of 2020, it had a market capitalization of EUR 2.1bn.

At the end of June 2021, it managed 60 private capital real estate funds with at least EUR 20 bn capital raised from investors. Of these, 19 funds were solely targeting residential markets or had a residential component, with an aggregate size of around EUR 10bn³¹.

For instance, Europe Residential 3, a closed fund, raised EUR 400 million from Bayerische Versorgungskammer, one of Germany's largest public pension funds, to invest in HAC across Europe.

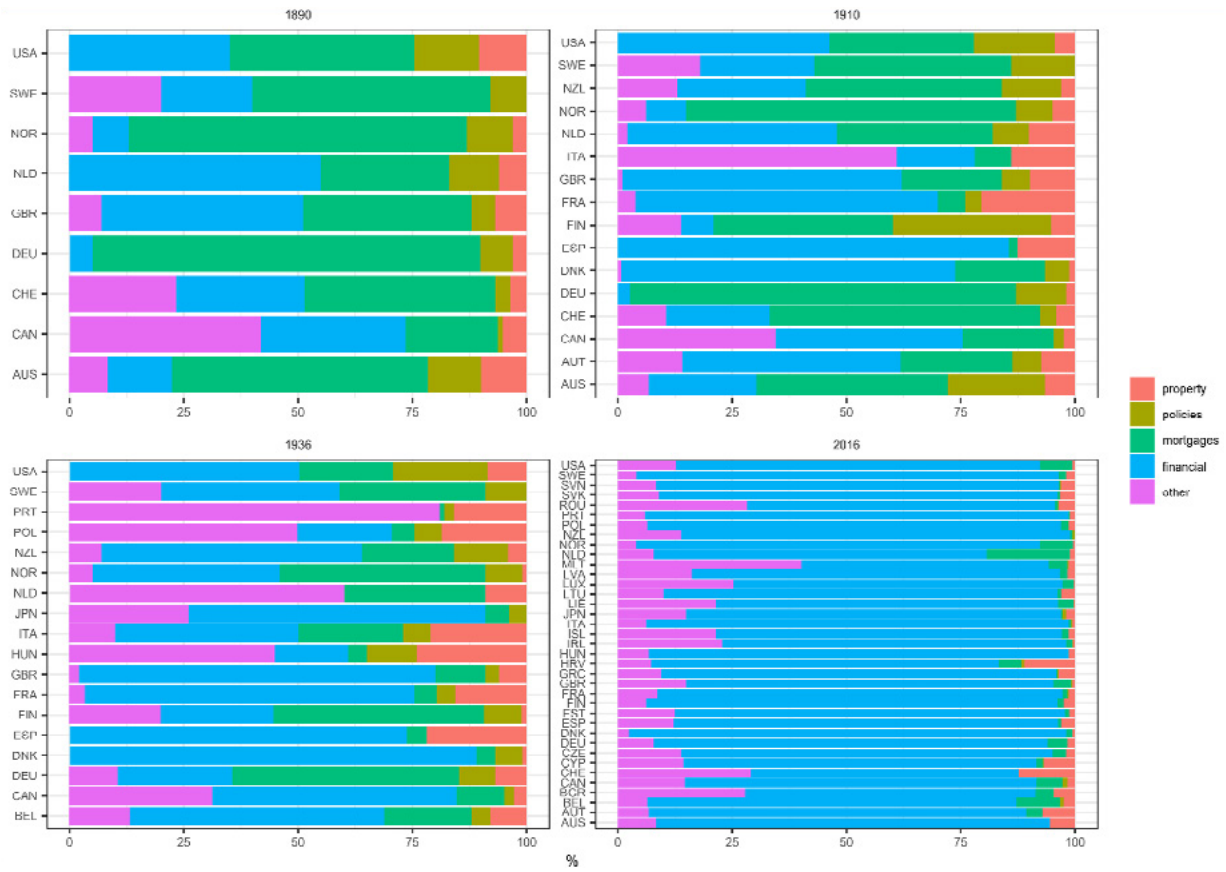
3.5 INSTITUTIONAL INVESTORS

Insurance Companies

Insurance companies have historically been a major investor in real estate. Life insurers with their long-term portfolios in particular have historically held the majority of total assets in mortgages in most countries until mid-20th century, below 10% in direct real estate and, where available, a good share in covered mortgage bonds or MBS. Throughout the 20th century, and accelerating in the 1970s, insurers withdrew from mortgage lending, but used real estate and mortgage bond investments to diversify their portfolios, to hedge against inflation and, more recently, to escape the low yields on government bonds. Large parts of their real estate investments concern commercial properties and commercial MBS, but they also include the residential segment.

³¹ <https://www.patrizia.ag/en/news-detail/new-patrizia-living-cities-residential-fund-with-eur-650m-seed-assets/>
<https://www.kedglobal.com/newsView/ked202012170019>
https://www.patrizia.ag/fileadmin/form_definitions/Shareholders/News/Publications/Presentations/2021/20210105-PATRIZIA-Company-Presentation.pdf

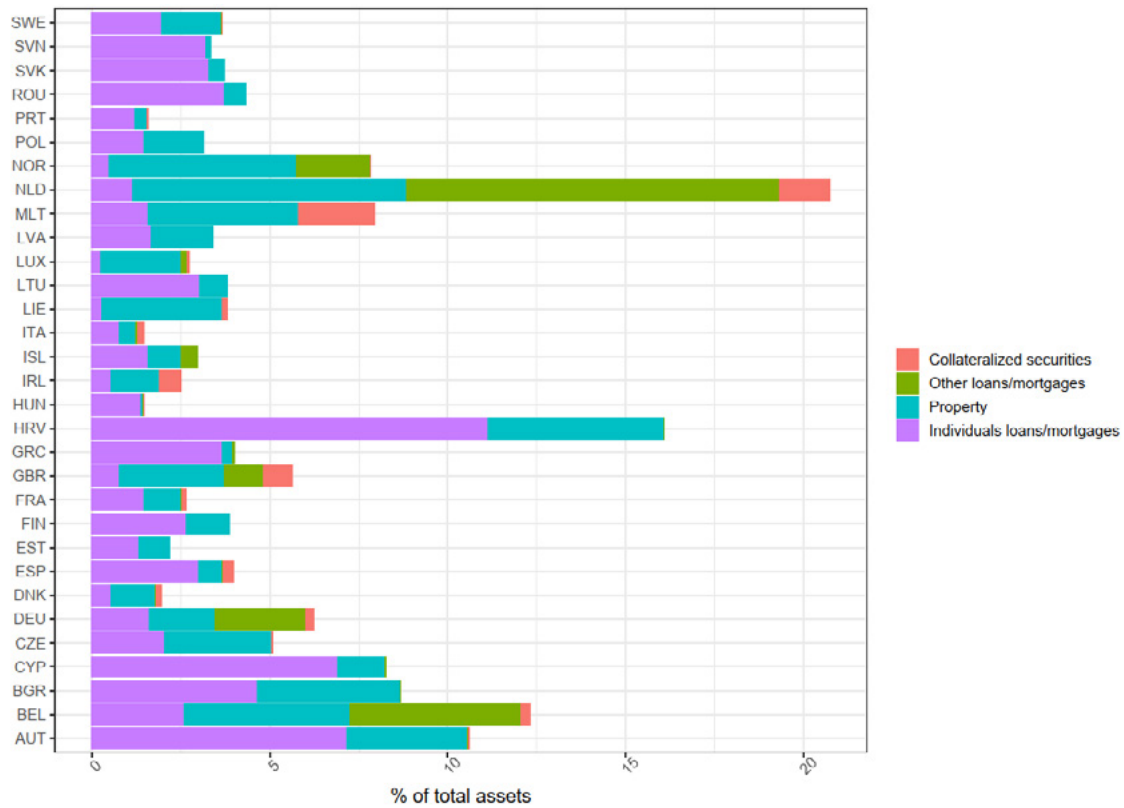
FIGURE 3.25: DECOMPOSITION OF LIFE INSURER PORTFOLIOS OVER ONE CENTURY



Source: (Kohl 2022)

Under the European Insurance and Occupational Pension Authority, these long-term investments are monitored on the European level and offer a comparative view on the importance of direct property sector investments (properties, mortgages, mortgage bonds) in insurers' portfolios (cf. Figure 3.26), not counting their participation in real estate funds. In most countries, the Netherlands being a clear exception, insurers hold less than 10% in the sector, which is low in terms of a portfolio share, but can be regarded as large for the real estate sector, particularly within certain cities.

FIGURE 3.26: INSURANCE INVESTMENTS IN PROPERTY



Source: European Insurance and Occupational Pension Authority³²

3.6 PENSION FUNDS

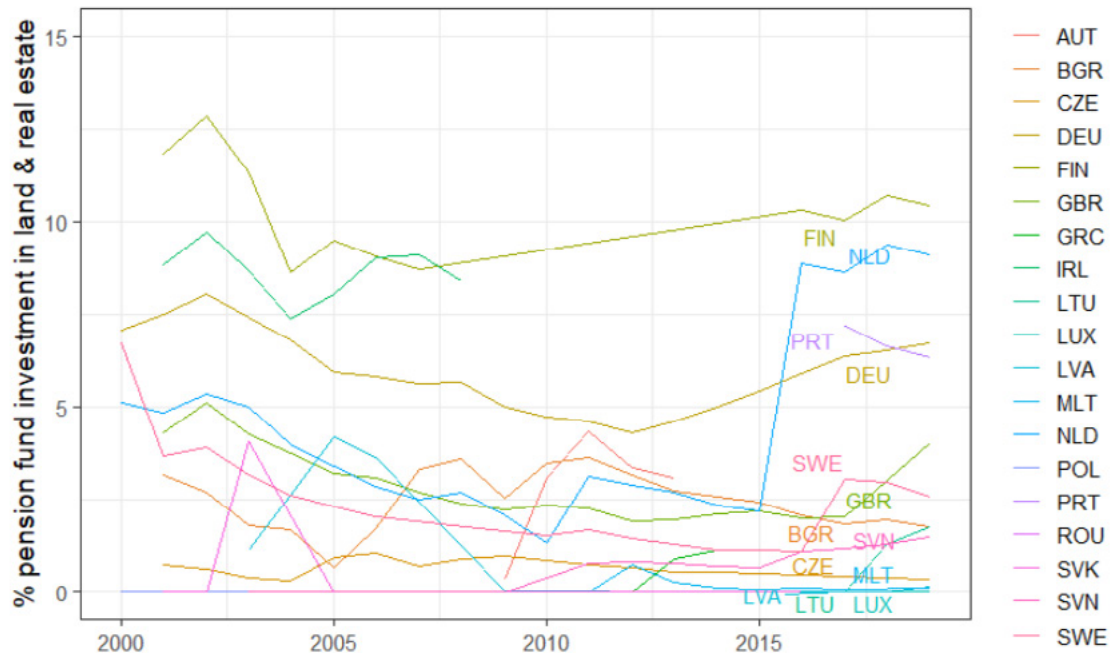
The public pension funds of the first pillar starting with Bismarck’s legislation had for a long time invested large parts of their funded pensions into social housing projects for workers and employees before they became mainly PAYGO systems (Kohl 2022). Public pensions and social housing were then in a complementary relationship (Schwartz 2014), which existed through the post-WWII reconstruction boom, when states even made the insurance industry participate in housing finance in general (Blackwell 2018; von Bargen 1960). In times of capital shortages for social housing construction, the long-term assets of pension funds and insurers constituted an important resource upon which governments could draw. With the end of the reconstruction boom and the reduction of public funded pensions, this complementarity broke down. Today’s small social security funds and the large sovereign pension reserve fund mostly do not hold direct real estate – the OECD reports 2.3% portfolio share only for the Portuguese social security reserve fund in 2009. Occupational and private pension funds became the main providers of funded pensions but did not similarly invest in social housing and also just a minority portfolio share in the real estate sector. Real estate was mainly seen as a diversification strategy in modern portfolio theory and served as an inflation buffer, although it lost out to bonds and stocks in terms of liquidity.

An OECD survey of funded pension shows that it is particularly the Netherlands and Finland that still have high shares of direct real estate investments (cf. Figure 3.27). Germany and Portugal

32 https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en

stick out as countries where most of the pension fund investments are indirectly channeled into real estate through mutual funds. In all other countries, direct real estate investments prevail in portfolios over indirect ones.

FIGURE 3.27: DIRECT AND INDIRECT PENSION FUND INVESTMENTS IN LAND AND REAL ESTATE (%)

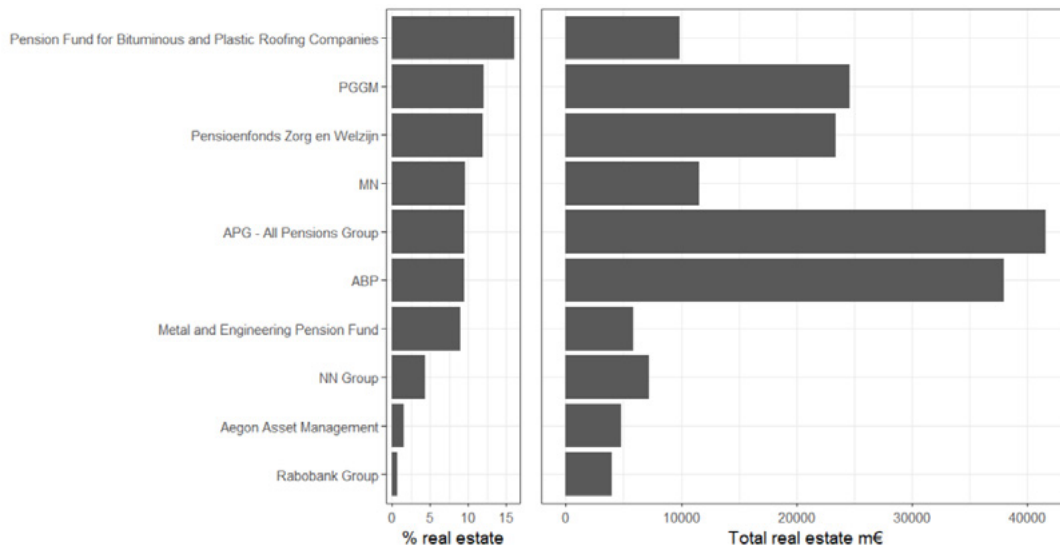


Source: OECD Funded pension statistics³³

Both in the life insurance and pension portfolio statistics the Netherlands and Denmark stick out as countries where the countries' pension assets are highest (194 and 220% of GDP in 2019) and are most oriented towards the real estate sector, directly or indirectly through mortgage bonds, respectively. The Dutch case is a stock example for a strong focus of capital-funded pensions with very low regulatory restrictions (van der Zwan 2017). Since the 1970s, the sector has continuously divested from government debt and diversified its portfolio, also investing in the real estate sector, first directly and since the 2000s more and more indirectly through the participation in funds (van Loon and Aalbers 2017). Prequin lists 201 large institutional investors being invested in real estate in the Netherlands, among which 125 private and 25 public pension funds (17 asset managers), allocating an unweighted average of 9.2% to real estate (53.6% fixed income asset and 30.3% equities). An unweighted mean of 42% of all real estate assets is directly invested in real estate, 29% is in listed shares and the remainder held through private funds. The largest Dutch pension funds and asset managers of more than 100 bn€ under management channeled up to 10% and more of their assets into real estate (cf. Figure 3.28).

33 https://stats.oecd.org/Index.aspx?DataSetCode=PNN_NEW

FIGURE 3.28: DUTCH INSTITUTIONAL INVESTORS' INVESTMENTS IN LAND AND REAL ESTATE (%)



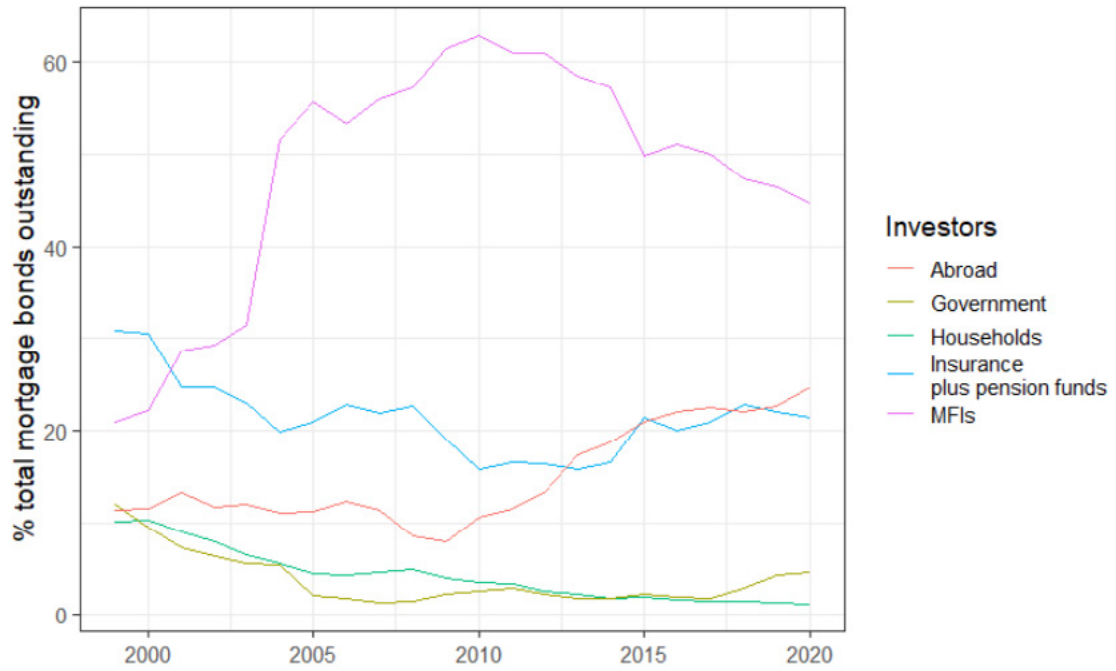
Source: Prequin 2021.

Social housing associations can also tap into institutional portfolios, particularly where the state guarantees above-market returns. For example, the Dutch pension fund for government and education workers, Stichting Pensioenfonds ABP, started lending to social housing associations in 2020. ABP loans enjoy state guarantees through the Social Housing Guarantee Fund (WSW), while the interest is slightly higher than on Dutch government bonds³⁴.

A slightly different complementarity between funded pensions and the real estate exists in Denmark, the other country with the highest mortgage debt by GDP in the world (Wood 2019). The dominant share of this mortgage debt is financed by different types of covered mortgage bonds, which have traditionally been issued by the credit and mortgage associations. This financial instrument has been able to generate huge amounts of mortgage capital because the countries' main institutional investors – insurance companies, pension funds and banking institutions – have channeled substantial shares of their portfolios into the mortgage bonds. Danish insurers, for instance, were among the few European insurance sectors to historically not invest the majority of their funds in direct mortgages but into mortgage bonds. Still, in recent years (cf. Figure 3.29), institutional investors – now joined by international ones – have bought up almost all of the Danish mortgage bond debt.

34 <https://www.europeanpensions.net/ep/ABP-provides-first-loans-via-its-social-housing-platform.php>

FIGURE 3.29: DANISH MORTGAGE BONDS HELD BY DIFFERENT INVESTOR TYPES (%)



Source: Danish Statistics³⁵

35 <https://www.statbank.dk/statbank5a/SelectVarVal/Define.asp?Maintable=DNRUDDKS&PLanguage=1>

4

THE CONTRIBUTION OF EU POLICIES TO THE FINANCIALIZATION OF HOUSING

The EU's major competence in the housing domain is through capital markets. We examine the key pieces of European legislation with an immediate impact on housing, focusing in particular on the constellation of rules and directives that enable financial actors to construct housing as an asset class.

The European level rules that impact housing as an asset class apply to institutions in the HAC ecosystem, and to instruments. European legislation can, and in some cases does, set the terms on which institutional investors organize their allocations to real estate, either directly or through financial markets. At an institutional level, European legislation has limited impact on the largest HAC investor type, pension funds. Despite several attempts, the IORP I and II Directives (Institutions for Occupational Retirement Provision) do not impose capital requirements but have been restricted to governance and transparency issues. In contrast, under the umbrella of the Capital Markets Union, European regulators have systematically encouraged insurance companies to invest in real estate asset classes, by easing capital requirements in the Solvency II Directive.

4.1 INSURANCE COMPANIES

The Solvency and Omnibus II Directive currently sets the requirements under which insurance companies must hold capital against distinctive asset classes. In August 2021, European insurance companies³⁶ owned EUR 217bn in European real estate, 2.7 % of their overall investments (EUR 8 trillion). In comparison, European pension funds allocated around EUR 500 bn, around 9.5% of their overall portfolio.

Solvency II sets the regulatory framework for insurers and re-insurers head-quartered in the European Union (EU) with annual premium income exceeding €5 million (see Table 4.1). It establishes capital requirements across distinctive housing asset classes through a standard formula that is scenario based and split into modules, including Market Risk Module and Counterparty Default Risk Module (for further details, see for example Natixis 2016³⁷), allowing insurers to use or partially use their internal models. The SCR relies on the generalized use of a look-through approach. Financial instruments held by a mutual fund are considered to be held directly by the insurer invested in the fund, on a pro rata investment basis.

The SCR standard formula is complex and open to interpretation on some very specific aspects of debt markets. For fixed income instruments (covered bonds, RMBS, corporate bonds), SCR calcu-

³⁶ This does not include the UK, Norway and Switzerland

³⁷ <https://www.im.natixis.com/en-institutional/resources/solvency-ii-capital-requirements-for-debt-instruments>

lations apply to several submodules, including interest rate risk, spread risk, market concentration risk, currency risk, equity risk (for convertible bonds), and counterparty default risk on OTC derivatives. Taking into account the correlation between different risk factors and allowing for diversification, these are aggregated into a final SCR score.

TABLE 4.1: EU REGULATORY FRAMEWORK FOR HOUSING AS AN ASSET CLASS

Investors/ Housing Asset Classes	Mortgage loans	Private equity	Public eq- uity	Covered Bonds	(STS) RMBS
Insurance companies (Solvency II)	Counterparty default risk + Loan to value ratio (LTV)	2019 LTE adjustment: SCR on “long-term investments in equities” reduced from 49% to 22 % *subject to eligibility criteria	2019 LTE adjustment: SCR on “long-term investments in equities” reduced from 39% to 22 % *subject to eligibility criteria	SCR Modules (Market Risk Module and Counterparty Default Risk module)	SCR Modules (Market Risk Module and Counterparty Default Risk module) 2019 STS RMBS provides significant capital relief lowers SCR depending on tranche, credit quality and duration
Banks	Capital Requirements Directive (CRD IV) and Capital Requirements Regulation (CRR) *capital and borrower based macroprudential measures	*equivalent to direct ownership of real estate if certain criteria met	*risk-weights (simple approach - 290% risk weight)	*preferential risk weightings under CRR *eligibility for High Quality Liquid Asset under Basel III Liquidity Coverage Ratio	*preferential risk weightings if STS criteria met
Pension Funds	*IORP II - transparency and governance *2023 revision of IORP II Directive: incorporation of double materiality ESG risks				
Instruments					
Private equity/ RE funds	AIFMD Directive				
REITs	National level regulations, particularly on tax treatment.				
STS RMBS	Capital Markets Union – STS regulation				

Covered bonds: The European Directive UCITS IV (N° 2009/65/EC) defines the conditions under which bonds qualify as a “covered bond” (as for instance issued by credit institution which has its registered office in a Member State). Solvency II confers favorable regulatory treatment to covered bonds in relationship to standard corporate bonds at equivalent rating and duration. For example, an AA covered bond carries the same SCR contribution as a AAA standard corporate bond³⁸.

Property risk: The art 105 (5)(c) of the Directive and 174 of the DA mention property risk, i.e. the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of real estate). This currently applies a 25% shock to property exposures, where the continental insurance industry has long been demanding a reduction, arguing that the current parameters were calibrated on the more volatile UK market (Quaglia 2011).

Residential mortgages also receive better regulatory treatment than corporate bonds. According to M&G calculations, capital requirements for residential mortgages reflect loan to value ratios and counterparty default risk. For instance, in 2020, a portfolio of Irish residential mortgages with 75% LTV carried a 2.2% Solvency Capital Requirement (SCR), whereas a portfolio of 95% LTV Dutch mortgages carried a 4.9% SCR. Both SCRs are lower than the SCR on 10-year A-rated corporate bond index (10.9%) and 10y BBB corporate bond index (19.2%)³⁹.

Mortgage-backed securities: the STS securitization regime, formally in place since 2019, provides significant capital relief for MBS held by insurance companies. Beforehand, the Solvency II regulation divided securitization positions into three categories, type 1, type 2 and resecuritization positions, to then calculate the capital requirement separately for each group. Type 1 Securitizations were required to meet a list of criteria, including ratings (better than BBB) and considered only most senior tranches. Re-securitization occurred where associated risks of securitization was divided into tranches again. All other securitization positions were classified as Type 2. The SCR would be calculated from market value of securitization position and a defined stress factor reflecting duration, credit rating and type allocated to the securitization position⁴⁰. Under the STS regime, securitization positions are now divided into senior STS, non-senior STS, non-STS and resecuritization. Thus, a 5-year AAA senior tranche of MBS that incurred a 10.5% SCR as Type 1 securitization now carries a 5% SCR. Even more dramatically, the SCR for a 5 year BB Senior STS MBS tranche is now set at 28%, down from 100% under previous Type 2 label, whereas the SCR for a 5 year BB non senior STS tranche falls to 79%⁴¹.

Private and public equity: the CMU Action Plan also promoted private equity investments for insurers. It created a new Long-Term Equity which receives capital relief under Solvency II. The Solvency II rules originally envisioned a 49% base capital charge for private equity, and 39% for public equity. A +/- 10% dampener would be applied as a counter-cyclical buffer, calculated using the level of an equity index (representing insurers’ equity investments) on the date in question and the index’s historical average over the past three years. However, in 2019 and against the advice

38 <https://www.im.natixis.com/en-institutional/resources/solvency-ii-capital-requirements-for-debt-instruments>

39 <https://www.mandg.com/dam/investments/institutional/shared/documents/insights/2020/q3/why-are-residential-mortgage-and-consumer-loan-pools-attractive-for-insurers.pdf>

40 <https://www2.deloitte.com/de/de/pages/financial-services/articles/secritisations-insurance-companies.html>

41 <https://www.mandg.com/dam/investments/institutional/shared/en/documents/insights/2019/q4/reintroducing-secritisations-to-insurance-portfolios.pdf>

of EIOPA (François 2021), the European Commission decided to reduce capital requirements for long-term equity investment (including in private equity funds) to 22% and extended the symmetric adjustment factor (from 10% to 17%)⁴². Under pressure from national treasuries and Ministries of Finance, the Commission expanded the criteria for LTE. These criteria seek to ensure the ‘patient’ nature of equity investments, specifying an average holding period of above 5 years and solvency/liquidity positions that ensure no forced sales of equity investments for 10 years, among others⁴³. However, private equity continues to lobby for weakening the LTE criteria in the upcoming Solvency II review. A joint Invest Europe–Insurance Europe (2021) paper outlines changes to criteria related to asset–liability management, liquidity requirements and geographic conditions that would ‘unleash capacity for equity investment’. The Commission currently intends to review the LTE criteria in order to expand the scope of equities eligible for the more favorable treatment.⁴⁴

Furthermore, where a European insurance company invests in a private equity fund, Solvency II generally applies a “look-through approach” that requires insurers to calculate their SCR on the basis of their proportionate share of the market value of the underlying assets of the fund. Unlisted investments held by the fund would be considered “type 2 equities” and attract a 49% risk weighting. Lobbying by Invest Europe (for European Private Equity and Venture Capital Association) led to the Commission reducing SCR requirements to 39% risk weighting for some closed-ended and unleveraged funds. Interests in closed-ended and unleveraged funds where the look-through approach is not possible (because, for example, adequate information on the fund’s underlying investments is not available) would also be treated as type 1 equities⁴⁵.

4.2 PENSION FUNDS

The Occupational Retirement Provision (IORP) Directive (the “IORP Directive”) II sets the European regulatory framework for pension funds. IORP I was introduced in 2003, and revised into IORP II in 2016. The European Commission, keen to create a European internal market for occupational retirement provision, called on the European Insurance and Occupational Pensions Authority (EIOPA) to provide advice on risk-based supervision of pension funds, including risk-based minimum solvency requirements similar to Solvency II for insurance companies. Faced with heavy opposition, the Commission dropped its plans, and IORP II focuses on transparency and governance. At national level, a series of regulations introduced after the dot com and global financial crisis imposed (mark to value) assets to liabilities thresholds, recovery plans and discount rates on liabilities that better reflect market rates (Bonizzi and Churchill 2017). Several countries, such as the Netherlands, use risk-based solvency requirements.

42 <https://www.insuranceassetrisk.com/content/news/long-term-equity-if-insurers-not-using-it-its-not-because-the-rule-is-bad-eiopas-wray-says.html>

43 See Debevoise (2019) <https://privateequityreport.debevoise.com/the-private-equity-report-spring-2019-vol-19-no-1/europe-an-commission-incentivises> the portfolio must be ring-fenced, separately managed, assigned to the obligations arising from a subset of the insurance company’s activities and remain assigned for the life of those obligations; the insurance company’s solvency and liquidity position and asset–liability management ensures that there will be no forced sales of the portfolio’s equity investments for at least 10 years; the equity investments are listed in the EEA or are unlisted equities in EEA headquartered companies; and the average holding period of the equity investments exceeds five years.

44 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0580>

45 <https://privateequityreport.debevoise.com/the-private-equity-report-winter-2016-vol-16-no-1/solvency-ii-how-will-it-impact-private-funds>

Yet pension fund appetite for real estate, particularly via funds, has increased rapidly. For instance, Eurozone pension fund investments in RE funds increased to EUR 173 bn in the 6 months to March 2021⁴⁶. While this should be understood as a search for yield in times of ample liquidity provision by central banks, pension funds also invest in leveraged real-estate funds because it allows them to indirectly use leverage in their portfolio in order to boost returns⁴⁷.

European regulations largely leave the HAC footprint of pension funds to the discretion of national authorities. However, the Sustainable Finance initiative of the European Commission opens the door to European level regulations targeting pension funds' HAC holdings. Two issues are relevant there: the *disclosure* and *regulation* of Environmental, Social and Governance risks through a double materiality approach.

IORP II requires pension funds to consider and disclose ESG risks to their portfolios. In relationship to the environmental crisis – the single most important driver of the Sustainable Finance initiatives – this is a single materiality approach in that it focuses on the risks that the climate crisis and new climate policies may strand those carbon assets that pension funds hold (for instance, bonds/equity issued by Shell). It does not consider, or indeed regulate, the lending of pension funds to high carbon sectors and thus neglects the contribution that pension fund investments make to the climate crisis. IORP II also relies on private sector methods for identifying and reporting ESG risks, despite broad recognition that private ESG practices are inconsistent and ridden with conflicts of interest that create room for systematic greenwashing. Indeed, EIOPA's (2021) response to the European Commission's revised Sustainable Finance Strategy recognizes, albeit implicitly, that the reliance on private ESG is ridden with inconsistencies. It calls for an EU ESG benchmark that develops a detailed methodology to assess both the ESG risks to investor portfolios (outside-in) and the impact that investment decisions have on sustainability (inside out ESG risks). This double materiality approach seeks to capture not just the risks that the climate crisis raises for pension fund portfolios but the contribution that pension funds that lend to high carbon companies via equity/bond/alternative assets makes to the climate crisis.

The European Commission's revised Sustainable Finance plans, published in July 2021, include provisions to ask EIOPA to assess a double materiality approach. This would involve updating fiduciary duties to reflect inside-out ESG risks. Should this be the case, pension funds would no longer be able to pretend that their portfolios of carbon assets are consistent with the mandate of protecting the "long-term best interest of members and beneficiaries". That the European pensions lobby, Pensions Europe, strongly opposes such plans⁴⁸, raises questions about the scope for substantive measures to green finance.

The affordable housing crisis in Europe makes a strong case for extending the double materiality debate to institutional investment in residential assets. The ESG framework already requires institutional investors to consider the risks to their portfolios from the social and governance practices of the companies they invest in. A housing ESG framework would explicitly require investors to not just consider the financial risks associated with their investments in HAC but also the impact that their investments, say via Blackstone, has on affordable and sustainable housing.

46 https://www.ecb.europa.eu/press/pdf/pfs/ecb.pfs2021q1_annex-3de6977778.en.pdf

47 <https://www.ft.com/content/6d85c0a3-8f52-4b43-8fa7-36c0391562de>

48 <https://www.pensionseurope.eu/system/files/Press%20release%20-%20PensionsEurope%20comments%20on%20European%20Commission%E2%80%99s%20Communication%20-%20Strategy%20for%20Financing%20the%20Transition%20to%20a%20Sustainable%20Economy.pdf>

4.3 CREDIT INSTITUTIONS

The most significant HAC category for banks is mortgage loans, which have become a more important line of business than the traditional business loans in the 2000s (Jordà et al. 2016). This was mainly driven by the entry of commercial banks into mortgage lending since the 1960s (Ball 1990). Previously, mortgages were mainly issued by insurers and savings or cooperative banks and the specialized mortgage lending institutions, i.e. building societies in Anglophone countries mainly and covered-bond-based mortgage banks on the continent. Driven by profits (Richter and Zimmermann 2019), commercial banks not only replaced insurers in mortgage lending, but their competition with the traditional mortgage lenders increased the overall amount of mortgages issued, which strongly correlate with house prices (Wood and Stockhammer 2020).

Since housing market bubbles can significantly impact financial stability and economic activity more generally (Jordà et al. 2016), European (and other) regulators have put in place a macroprudential regime that seeks to minimize systemic risks. In the Eurozone, the ESRB coordinates macroprudential policies and has the power to assess national measures and apply additional countercyclical measures where it judges it necessary for macroprudential reasons (Lo Duca et al. 2021). The ECB monitors three sets of risk indicators: (house) price risks, lending risks (deteriorating credit standards) and household risks (highly indebted households). It also takes into account the size of the residential real estate market and banks' overall exposure to it.

Macroprudential policies can be either capital-based or borrower based. Under the Capital Requirements Directive (CRD IV) and the Capital Requirements Regulation (CRR), competent authorities (central banks and others) can require banks to hold more capital against residential exposures, for instance by increasing the risks weights, or by increasing floors on banks' loss-given-default. Article 458 of CRR further allows additional capital requirements on all or a subset of domestic financial institutions. These are typically tightened when real estate prices or household indebtedness increase rapidly.

In parallel, regulators can also deploy borrower-based instruments, such as loan to value ratios, debt to income ratios or debt service to income ratios. In 2019, at least 14 Eurozone countries had a combination of capital and borrower based macroprudential measures in place, ranging from Austria and Netherlands solely borrower-based measures to Malta, Luxembourg and Belgium solely capital-based measures. The variation in national measures reflects the relative importance of the various risk factors that central banks take into account.

Covered bonds: The Capital Requirements Regulation (CRR) gives preferential risk weightings to banks' holdings of covered bonds that meet a series of criteria (such as LTV limit of 80% on residential mortgage collateral⁴⁹). The highest rated covered bonds that meet those criteria enjoy a 10% risk weighting, which increases to 50% for speculative grade (BB or B) and 100% for junk. Unrated covered bonds can also benefit from preferential risk weights, depending on the senior unsecured credit rating of the issuer. Furthermore, banks can also use covered bonds under the Liquidity Coverage Ratio, which requires credit institutions to hold high-quality liquid assets

⁴⁹ collateral <https://www.nordlb.com/my-nord/lb-portals/download/research-document-800?cHash=203217d128a25ef67474d-032bacab67a>

(HQLA) to compensate for potential net liquidity outflows within a 30-day stress scenario. There are numerous criteria that an issue must meet in order to achieve the status of an eligible asset (see NordLB 2021).

STS securitization: Regulation (EU) 2017/2401 (the securitization Prudential Regulation, or SPR) sets out the framework under which banks can benefit from more favorable regulatory capital treatment for STS securitization. It replaces certain provisions of the Capital Requirements Regulation (CRR).

In order to receive capital relief, banks have to demonstrate that their holdings of residential MBS⁵⁰ meet the STS eligibility criteria on *Simplicity* (including that mortgage borrower's income was verified by lender, that underlying mortgage loans are not in default, *Transparency* (including that originator and sponsor provide environmental performance of assets financed in a residential mortgage), and *Standardization* (including 5% risk retention, hedging of currency and interest rate risk etc.⁵¹).

Once the STS criteria are met, banks calculate the capital requirements for their RMBS positions according to what the European Commission terms a single hierarchy of approaches, in this order of preference:

- Securitization Internal Ratings Based Approach (SEC-IRBA): banks own internal rating models, albeit pre-approved by the institution's regulator. SEC-IRBA applies certain pre-defined inputs to the underlying exposures.
- the Securitization Standardized Approach (SEC-SA) relies on a supervisory-provided formula using as an input the capital requirements that would be calculated under the existing standardized approach under the CRR. It uses a risk-weight floor of 10 percent for senior STS securitization positions.
- Securitization External Ratings Based Approach (SEC-ERBA): this method of last resort is based on credit ratings assigned by external rating agencies (or inferred) to the securitization tranches.

Furthermore, the underlying exposures must have, at the time of inclusion in the securitization, a risk weight equal to or smaller than 40 percent on an exposure value-weighted average basis for loans backed by residential mortgages or fully guaranteed residential loans. This is lower than the 50% percent applied to individual exposures secured by commercial mortgages, 75% on retail exposures and 100% on other exposures.

The STS regulation stimulated the RMBS market. The STS market was concentrated in the RMBS segments in the Netherlands and the UK in 2019, to then slow down once the COVID19 pandemic hit, and large issuers such as Obvion or Aegon postponed or suspended their planned issuance.

Notably, with the exception of the Netherlands, the buy-to-let RMBS issuers do not seek STS status. This again highlights the critical role that global/European financial regulation plays in

⁵⁰ Note that Commercial mortgage-backed securities (CMBS) cannot receive an STS label, due to risks of fire sales of the underlying loans in order to repay the CMBS obligations.

⁵¹ for further detail, see <https://www.nortonrosefulbright.com/en/knowledge/resources-and-tools/capital-markets-union/securitisation/sts-securitisation-practical-guide>

shaping the transformation of housing into asset classes, as buy-to-let RMBS do not receive preferential regulatory treatment under Basel III Liquidity Coverage Ratio rules (as high quality, safe asset).

Private equity deals/funds: Banks can participate in private equity deals/funds either can act as equity investor or as both equity investor and the debt financier. Under the 2019 revisions to the Capital Requirements Regulation (CRR II):

- The amended Article 132 offers banks the possibility to calculate their risk-weighted exposure of fund investments by applying the look-through approach (LTA⁵²) or the mandate-based approach (MBA). These approaches are materially more exact than the fallback approach, which applies a general risk weight of 1,250% to the total risk position in the fund.
- Both the LTA and the MBA require detailed information about the specific fund's investments (at minimum about the fund's mandate) which might not be easily accessible to the investing bank. Therefore, Article 132 allows banks to instruct third parties (e.g. fund management companies) to calculate the risk-weighted exposure of investments in collective investment funds.
- For banks to refer to the risk-weighted exposure calculated by third parties applying either LTA or MBA, Article 132 requires the correctness of the calculation to be confirmed by an external auditor. Should a bank fail to access such confirmation, their equity investments in funds must be risk-weighted by 1,250% (i.e. are subject to the fallback approach).
- In case such confirmation can be obtained, banks should further clarify whether they can access the look-through calculations carried out by the third party in an unrestricted manner. If such access is not provided for, the applicable risk weight must be multiplied by a factor of 1.2.

Public equity

According to the European Banking Authority, the Single Rulebook allows credit institutions to determine their risk-weighted exposure for equities, following different approaches. Under the simple risk weight approach, the exposure is calculated by multiplying the exposure value with a risk weight that takes the value of 190% for private equity exposures in sufficiently diversified portfolios, 290% for exchange traded equity exposures and 370 % for other equity exposures⁵³.

4.4 RESIDENTIAL/RE FUNDS

The Alternative Investment Fund Managers Directive (AIFMD) sets out the rules for the authorization and operation of fund managers that manage or market alternative investment funds (AIF) in the European Union. An 'AIF' is defined in Article 4(1)(a) of the AIFMD as a collective investment undertaking, which raises capital from a number of investors with a view to investing it in accordance with a defined investment policy for the benefit of those investors and which does

⁵² See for example <https://www.bis.org/publ/bcbs266.pdf>

⁵³ For further detail, see <https://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/1610>

not require authorization pursuant to the UCITS Directive. AIFs comprise a broad range of types, including hedge funds, fund of funds, private equity funds, real estate funds and other types of funds depending on the structure and the asset class.

The Directive targets the regulation of fund managers but has implications at fund level. It seeks to strengthen investor protection and limit systemic risk⁵⁴. Managers are required to conduct valuation, risk and liquidity management functions independently from portfolio management. While AIFMs are required to obtain a license from a home supervisor, the Directive provides an EU wide management and marketing passport, allowing managers to mobilize capital and organize portfolios at European levels.

The EU AIF industry is concentrated in a few countries – Germany, France, the Netherlands Luxembourg and Ireland – accounting for more than 82% of the net assets of the industry. At the end of 2018 the share of net assets of AIF market of Germany stood at 29%, 18% was the share attributable to France, whereas the shares of Netherlands, Luxembourg and Ireland were 13%, 12% and 10% respectively.

AIFs invest in a wide range of assets and use leverage. According to the AIFMD, AIFMs that manage portfolios of AIFs exceeding €100 million of AuM and that use leverage shall be authorized by the NCA of its home Member State and must comply with all the requirements of the AIFMD. For the AIFMs that do not use leverage, the threshold is raised to €500 million. These requirements include provisions around remuneration, depositaries, risk management (including liquidity and leverage), and transparency and reporting (of geographical location of real estate assets and concentration, valuation, risk management and stress tests⁵⁵)⁵⁶.

The Directive also sets very light capital requirements: an initial capital requirement of at least €125,000; if the value of assets under management exceeds €250m then an additional amount of “own funds” equal to 0.02 per cent of the excess over €250m is required, but subject to a cap of EUR 10 million. This is low compared to the funds raised (EUR 81 bn) and estimated dry powder (9.5bn) of the top 10 EU-based fund managers owning residential asset classes across Europe (see Table 4.2).

54 <https://www.financierworldwide.com/impact-of-the-aifmd-on-real-estate-funds#.YSTLOC2ZNUM>

55 According to the European Commission (2020): ‘the AIFMD reporting framework consists of 69 reporting obligations, which equates to a total of 517 data points to be reported. The legal reporting obligations for registered and authorized AIFMs cover the main instruments in which their managed AIFs are trading, principle exposures and the most important investment concentrations of the AIFs. A full- scope AIFM must moreover report a breakdown of its investment strategies, the concentration of investors and the principal markets in which the respective AIFs trade as well as risk profiles of individual AIFs, including market risk, counterparty risk, liquidity and operational risk profiles, stress test results and other risk aspects such as the leverage values of the AIF’.

56 see European Commission (2020) for further details. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200610-aifmd-application-scope-working-document_en.pdf

TABLE 4.2: LARGEST EU BASED FUND MANAGERS WITH HAC IN PORTFOLIOS

	Location	Funds raised in the last 10 years (USD million)	Estimated Dry Powder (USD million)	Assets under Management (USD million)
Amundi Real Assets	France	16,889	772	46,518
PATRIZIA	Germany	16,382	336	54,050
AXA IM Alts	France	15,241	1,166	999,350
AEW	France	6,728	458	83,744
Aermont Capital	Luxembourg	5,618	2,351	6,440
NREP	Denmark	4,760	2,311	9,567
Niam	Sweden	3,794	1,223	4,485
KGAL Real Investments	Germany	3,725	105	23,230
DWS Group (Deutsche Bank)	Germany	3,353	61	987,850

Note: this excludes US-based fund managers that hold European HACs.

The leverage provisions in the AIFMD do not mandate leverage ratios (as for instance Basel III does for banks). Instead, AIFMD relies on a market-based regulatory regime: it sets provisions on the monitoring of systemic risks that include the calculation of leverage and the reporting of leverage to the NCAs. It also asks AIFMs to set the maximum level of leverage that can be employed on behalf of each AIF they manage. With the exception of unleveraged closed-ended funds, AIFMs must have systems and procedures in place for monitoring and managing liquidity risk arising from redemption requests⁵⁷.

In December 2020, at the request of the European Systemic Risk Board, ESMA issued guidelines on the design, calibration and implementation of macroprudential leverage limits for AIFs. The guidelines, to be implemented by National Competent Authorities, set out a 2-step process for assessing and addressing leverage-related systemic risks in AIFs. In Step 1, competent authorities identify AIFs likely to pose risks to the financial system (AIFs using substantial leverage and AIFs which may not employ substantial leverage but have AUM higher than EUR 500 million). In Step 2, competent authorities should evaluate potential leverage-related systemic risks to financial stability of the AIFs identified under Step 1, including risks of market impact, fire sales, spill overs to other financial institutions and interruption in direct credit intermediation. Following this 2-step process, national authorities can decide to set leverage limits on some AIFs (ESMA 2021⁵⁸).

⁵⁷ Open-ended RE funds permit investors to make contributions and request redemptions at certain times during the life of the fund. The number of units or shares issued to an investor in return for contributions to the fund and the amount payable to the investor by the fund upon cancellation of units of shares following a redemption request are based on the price of the unit or share on the day of the contribution or redemption (known as the 'dealing day'). The price is calculated by dividing the net asset value of the fund – i.e. the assets minus the liabilities as determined based on prevailing market prices and in accordance with the rules applicable to the fund under its constitutive documents and the law of its place of organization – by the number of outstanding units or shares on the dealing day. The contribution, or the redemption amount, as the case may be, is payable upon the contribution or redemption becoming binding on the investor and the fund.

⁵⁸ https://www.esma.europa.eu/sites/default/files/library/esma34-32-701_guidelines_on_article_25_aifmd.pdf

5

RECOMMENDATIONS FOR EU LEGISLATIVE ACTION TO SLOW DOWN AND TACKLE FINANCIALIZATION: A EUROPEAN HOUSING FRAMEWORK

We flesh out several recommendations, premised on the idea that further regulatory easing for institutional landlords creates more problems than solutions. To reverse the financialization of housing, we suggest, requires both prioritizing the European-level mobilization of public resources for investment in social/housing and the introduction of a mandatory disclosure and regulatory regime for institutional landlords, anchored in a Social Taxonomy with special provisions for housing.

Indeed, the growing institutional appetite for residential housing, historically supported by increasingly permissive European legislation developed to promote the Capital Markets Union, suggests that Europe also needs an integrated approach that reclaims responsibility for affordable and adequate housing from financial markets. Institutional investors may have mandates and risk/return requirements that are inconsistent with the delivery of housing as a human right.

Instead, we suggest a framework that reclaims public responsibility for affordable and adequate housing from markets through a four-tiered approach:

(a) a European level regulation of the institutional landlord ecosystem, anchored in the Social Taxonomy proposals of the European Commission. This mandates disclosure through a triple-bucket approach to the Social Taxonomy, to then reverse the preferential regulatory treatment afforded to all but the strongest performing housing asset classes in European legislation (documented in Chapter 4), and implement an escalation-based regulation regime.

(b) slowing down financialization through a European Housing Fund that balances the countercyclical forces moving residential housing from private/public to institutional portfolios.

(c) a Housing Red Flag rule that ensures housing asset classes are ring-fenced from any future regulatory easing initiatives.

(d) macroprudential interventions orchestrated by the European Central Bank to break the spirals of exploding mortgage debt and rising house prices in major urban centers in Europe.

5.1 A HOUSING UPGRADE IN THE SOCIAL TAXONOMY TO UNDERPIN MANDATORY DISCLOSURE AND REGULATION OF INSTITUTIONAL LANDLORDS

The 2017 UN Report on the financialization of housing called for human rights guidelines to be developed specifically for financial actors operating in the housing system. In this section, we first review the private metrics commonly used to assess the ESG practices of financial actors involved in the production of housing asset classes, we then map the Social Taxonomy draft proposals of the European Commission to then outline a two-step approach that would align these practices with a housing as a human rights perspective (Leijten and de Bel 2020).

State of play in private sector: widespread institutional investor use of private ESG real estate benchmarks (dominated by GRESB), increasingly granular at asset level, but without asset-level metrics to capture the social impact of institutional ownership of housing assets.

Institutional investors in housing asset classes have increasingly turned to ESG reporting. Since 2009, the private real estate industry has relied on the Global Real Estate Sustainability Benchmark, a private rating system for the Environmental, Social and Governance performance of property companies, real estate investment trusts (REITs), funds, and developers. By 2020, over 100 institutional investors with USD 22 trillion AUM were using GRESB to monitor the performance of their RE assets, including HAC. But the global standard for benchmarking ESG performance in the real estate industry came under increasing criticism from investors, for several reasons: scope for greenwashing through a ratings methodology focused on funds rather than assets, through questionable metrics to assess the environmental impact of the assets; through manipulation of ESG scores (with the help of ESG consultants)⁵⁹. In response, GRESB providers announced in 2020 that this would require greater asset-level reporting: for instance, Blackstone's BPPEH would have to report data on energy consumption, carbon emission, efficiency measures, water and waste management and other criteria for its residential properties it owned in Germany and The Netherlands.

The example of Blackstone's BPPEH illustrates powerfully why a public Housing taxonomy needs to be developed, so that it better captures the social impact of the transformation of housing into asset class. As one of world's largest institutional landlords, in 2019 Blackstone was publicly condemned by the UN Special Rapporteur and the Working Group on Business and Human Rights for a business model that pushes rents up, increases evictions and maintenance costs for tenants, while worsening racial disparities, all without any accountability (Raymond et al. 2021).⁶⁰

The GRESB granular asset data reporting provides investors with greater detail than the ESG reporting that Blackstone makes publicly available for its BPPEH portfolio. For instance, on environmental issues, it is difficult to identify the environmental impact of its housing assets (see Figure 5.1) beyond vague commitments to reduce water and energy usage, whereas its criteria for Social impact include the gender balance in its portfolio companies, and vague references to global housing supply and investments in improvements without considerations of rent increases or clear definitions of 'core housing principles to provide the best tenant experience'.

59 see <https://realassets.ipe.com/news/gresb-real-estate-coverage-reaches-57trn/10055705.article>

60 https://www.ohchr.org/Documents/Issues/Housing/Financialization/OL_OTH_17_2019.pdf

FIGURE 5.1: BLACKSTONE BPPEH REPORTING OF ESG ISSUES

Beyond Returns: Investing With Purpose to Make an Impact

Strengthening the communities in which we live and work

<u>Environmental</u>	<u>Social</u>	<u>Governance</u>
<ul style="list-style-type: none"> ▪ Reducing water and energy usage across our portfolio ▪ <i>Stuyvesant Town</i> <ul style="list-style-type: none"> – Largest U.S. private multifamily rooftop solar project, doubled Manhattan's solar capacity – First NYC multifamily building to receive ENERGY STAR certification six years in a row⁽¹⁾ ▪ <i>Willis Tower</i> <ul style="list-style-type: none"> – Largest U.S. building to achieve the highest level of energy efficiency (LEED Platinum) ▪ <i>India Office Portfolio</i> <ul style="list-style-type: none"> – Utilizing 100MW solar plant to supply green power, offsetting 148M kg of CO2 emissions⁽²⁾ 	<ul style="list-style-type: none"> ▪ Focused on increasing diversity across Blackstone and portfolio companies <ul style="list-style-type: none"> – 50% of BX's largest businesses have a woman or minority as one of top two leaders ▪ Committed to adding to global housing supply and improving communities⁽³⁾ <ul style="list-style-type: none"> – 83k+ units created – \$3.5B+ invested in improvements ▪ Partnering with local organizations to support communities <ul style="list-style-type: none"> – Donated \$15M to COVID-19 relief efforts in New York 	<ul style="list-style-type: none"> ▪ Encouraging portfolio companies to address ESG factors through quarterly updates and annual surveys ▪ Engaging with unions to retain workers and create employment opportunities ▪ Established core housing principles to provide best possible tenant experience ▪ Manager member and active participant of GRESB, a Real Assets ESG assessment⁽⁴⁾ ▪ <i>The Arch Company:</i> <ul style="list-style-type: none"> – Collaborated with all tenants and issued Tenants' Charter establishing governance and social impact principles

Source: Blackstone (2020)

Preqin's assessments of BPPE's ESG performance in turn paints a more nuanced picture (see Figure 5.2). The funds' portfolio performs well on several of Preqin's environmental metrics (energy management, product design), but poorly on others (emissions, air quality, waste management). On social issues, Preqin gives a low score (light yellow) to human rights and community relations, to access and affordability, and to labor practices, rather in line with the literature that examines the detrimental impact of institutional landlords. However, Preqin ESG methodology is proprietary, and may not adequately capture the most critical aspects of housing as a human right.

FIGURE 5.2: BLACKSTONE BPPE ESG PERFORMANCE, PREQIN ASSESSMENT

ESG Exposure counts the number of active portfolio companies in this fund associated with each SASB Issue. The E, S, G categorization has been created by Preqin. [For the full methodology, see section 4.](#)

Showing this fund's active portfolio companies Low High

Environmental SASB issues	No. of portfolio companies	Social SASB issues	No. of portfolio companies	Governance SASB issues	No. of portfolio companies
GHG Emissions	1	Human Rights & Community Relations	1	Supply Chain Management	1
Air Quality	1	Customer Privacy	1	Business Ethics	1
Energy Management	2	Data Security	1	Competitive Behavior	1
Water & Wastewater Management	1	Access & Affordability	1	Management of the Legal & Regulatory Environment	1
Waste & Hazardous Materials Management	1	Product Quality & Safety	1	Critical Incident Risk Management	1
Ecological Impacts	1	Customer Welfare	1	Systemic Risk Management	1
Product Design & Lifecycle Management	1	Selling Practices & Product Labeling	1	Business Model Resilience	1
Materials Sourcing & Efficiency	1	Labor Practices	1		
Physical Impacts of Climate Change	1	Employee Health & Safety	1		
		Employee Engagement, Diversity & Inclusion	1		

Source: Preqin.

5.1.1 STRENGTHENING THE HOUSING IN THE SOCIAL TAXONOMY PROPOSALS: A VERTICAL AND HORIZONTAL, TRIPLE-BUCKET APPROACH

The Social Taxonomy reflects the intention of the European Commission to develop a framework that captures the social aspects of companies financed via bank and non-bank financial institutions, in the same manner that its Environmental Taxonomy aims to capture sustainable economic activities.

The Social Taxonomy seeks to introduce metrics for evaluating the social aspect of investments/assets. Mirroring the Environmental Taxonomy, this involves defining what constitutes a substantial social contribution and how to not do significant social harm, alongside identifying activities that are harmful. The overarching logic is to reorient portfolio flows to activities and entities that substantially contribute to achieving social objectives, paralleling the Environmental Taxonomy that aims to redirect investment flows into environmentally friendly activities.

The explicit intention of the Taxonomy is to avoid social washing of assets⁶¹: exaggerating or misrepresenting the positive social impact of activities and entities that issue assets. For instance, a socially washed Taxonomy would allow Patrizia or Blackstone to market their funds as Social Taxonomy eligible even if their practices as institutional landlords worsen living conditions for its tenants.

The proposed Social Taxonomy envisages a horizontal and a vertical dimension that private financial institutions may apply to capture the social impact of the companies/activities they lend to. While these overlap to some extent, the horizontal dimension focuses on the processes and practices of companies that issue RE assets, such as Blackstone (in say, workforce conditions, human rights, diversity, modern-day slavery, fair pay, anticorruption practices, labor rights and collective bargaining, health & safety issues, human capital, among a multitude of others). This echoes the framework used by private ESG rating companies to capture the social aspect of corporate/government behavior (even if the specific metrics may be different).

The vertical dimension explicitly aims to promote adequate living standards via private investment and defines adequate living standards via the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights. Thus, the Commission proposes to rely on the concept of availability, accessibility, acceptability and quality (AAAQ) to develop metrics for the vertical dimension, noting that the AAAQ approach is an internationally recognized way to implement and test the fulfilment of social, economic and cultural rights. As the proposal puts it:

‘availability means that a certain good is available in a sufficient quantity and is functioning. Accessibility means that a product or service is economically (affordability) and physically accessible without any discrimination and that the related information is also accessible. Acceptability means culturally acceptable, respecting the sensitivity of mar-

⁶¹ https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sf-draft-report-social-taxonomy-july2021_en.pdf

ginalized groups. Quality means that it is safe and that it meets internationally recognized quality standards that are scientifically approved'. The Commission envisages the vertical dimension to apply to public goods that are already an asset class (i.e. that are commodified), such as healthcare and housing, while recognizing that the public nature of education means it offers 'fewer investment opportunities' (p29).

The Social Taxonomy thus aims to create a framework for market-based governing of financialized public goods. In so doing, it provides a regulatory derisking framework that would enable private investors to further increase their footprint in social provisioning. Indeed, the Taxonomy draft prioritizes healthcare and housing, but not education, which is not yet a significant asset class in Europe. While the commitment to design a framework for identifying the social impact of housing as an asset class is notable, it is more important to ensure that the Social Taxonomy develops into a regime that both improves *transparency* and *regulates* institutional landlords.

The Social Taxonomy has three notable fault lines with respect to housing:

- *voluntary application*: similar to the Environmental Taxonomy, the Commission does not envisage the Social Taxonomy be applied to the entire universe of housing asset classes discussed in this report. Rather narrowly, it aims to accommodate the subset of institutional landlords that want a 'social' label attached to the housing asset classes they issue or own.
- *scope for social washing from arbitraging the horizontal vs vertical dimensions*: without the two dimensions being simultaneously applied, the Taxonomy may perversely increase the scope for social washing. This could be the case were it to allow institutional landlords to claim taxonomy eligibility on the horizontal dimension (for example Patrizia's social performance via its practices and conducts) without having to demonstrate how their housing asset classes meet the AAAQ criteria on the vertical dimension. The European finance lobby EUROSIF⁶², which lobbies for the promotion and advancement of sustainable and responsible investment across Europe, stressed this concern resulting from the interaction between the vertical and the horizontal dimension, while noting that the simultaneous application of both vertical and horizontal dimension would drastically reduce the number of eligible assets. In other words, it is likely that institutional landlords will lobby for an either/or regime.
- *scope for social washing from arbitraging the implementation of the AAAQ approach*: even if the Taxonomy mandates the double application of the vertical and horizontal dimensions, the AAAQ approach may have perverse consequences if the Taxonomy does not require the uniform application of all (four) criteria. As EUROSIF points out, investors are lobbying against the simultaneous application because local variability and data gaps may prevent them from fulfilling all criteria at the same time. But the demand for discretion in choosing the relevant criteria may allow institutional landlords to label their housing assets as taxonomy eligible when these meet the quality criteria (having refurbished old housing units or built new ones to high quality standards) without meeting criteria on affordability.

62 <https://www.eurosif.org/wp-content/uploads/2021/09/Eurosif-Statement-on-a-Social-Taxonomy.pdf>

In summary, the Social Taxonomy, despite its emphasis on human rights and the AAAQ approach, may end up enabling institutional landlords to socially wash their housing asset classes. To minimize this potential, and in the context of growing institutional demand for housing asset classes that often leads to inadequate and unaffordable housing, foreclosures and evictions, we instead propose that Housing be treated as a special area within the Social Taxonomy, with two sets of requirements:

- a. That **both the vertical and the horizontal dimension** be applied to housing assets. This minimizes the scope for social washing in the scenario where institutional landlords can choose to meet the horizontal criteria.
- b. That the **vertical dimension introduces an asset-level three-bucket rating system**. For this, the European Commission should first set up a Housing High Level Expert Group (HHLEG), modelled on the High Level Expert Group on Sustainable Finance and drawing on the AAAQ proposals of the Social Taxonomy (ECB 2021) to include civil society organizations, independent human rights experts - with the specific mandate to establish AAAQ metrics for housing asset classes that are consistent with housing as a human right. The HHLEG would ensure that the AAAQ criteria capture (the impact on) affordability and adequacy of housing, alongside other environmental and governance considerations, at asset rather than fund or company level.

Instead of the binary taxonomy-eligible/not eligible approach, the Housing Taxonomy regime could draw on the GRESB experience to establish a score/rating system that distinguishes clearly between a *high*, *struggling* and *poor* performance at asset level in order to enable a regulatory regime that aligns HAC with a human rights perspective.

To avoid social washing, the three-bucket approach should establish high performing/struggling/poor benchmarks across the AAAQ metrics and require the simultaneous fulfilment of each AAAQ benchmark within the bucket. Thus, for an asset to qualify for the performing bucket it would need to meet the performing benchmarks on each AAAQ criteria. While the data requirements are significant, institutional landlords already report granular asset data to GRESB – the portfolios of over 1500 real estate companies, REITs, funds and developers, and more than 700 infrastructure funds and asset operators participate in GRESB Assessments.⁶³

5.1.2 MANDATORY DISCLOSURE FOR ALL INSTITUTIONAL LANDLORDS

Institutional landlords should be mandated to disclose the performance of their housing assets according to our proposed vertical and horizontal, three-bucket Social Taxonomy. The mandatory disclosure regime would not be too onerous for institutional investors. Most already report asset-level ESG data to GRESB and face mandatory ESG disclosures under the new Sustainable Finance Disclosure Regulation. Taxonomy disclosures should be publicly available to regulators and citizens, including those that directly generate revenue for institutional investors.

⁶³ <https://gresb.com/nl-en/welcome/for-investors/>

5.1.3 AN INSTITUTIONAL LANDLORD REGULATORY REGIME FOR INSTITUTIONAL INVESTORS WITH HOUSING ASSET CLASSES ON THEIR BALANCE SHEET

The benign neglect at best, or the deliberate regulatory push for larger institutional footprints in housing markets, has been a systemic feature of European-level financial regulation, accelerated by the Capital Markets Unions initiatives. European regulators share the responsibility for the crisis of affordable and adequate housing with their national counterparts.

This trend should be reversed by the relevant regulatory authorities in cooperation with the European Commission. One possible solution is to adopt the ‘escalation’ approach that the Bank of England has developed in order to align its monetary policy operations with a net zero target (Hauser 2021). The escalation approach moves down a ladder of possible policy options to green corporate bond purchases, by first purchasing a relatively higher amount of green assets and fewer dirty assets to removing dirty issuers from list of eligible assets for monetary policy operations for divestment (Bank of England sells dirty assets from its corporate bonds portfolio). A similar escalation-driven regulatory regime should be designed to sharpen the incentives for HAC investors to align their practices with the highest Housing Taxonomy standards.

- **Positive tilt baseline:** The Housing Taxonomy HHLEG, in cooperation with relevant authorities across the ecosystem of institutional investors, should develop a roadmap for removing all preferential HAC regulatory treatment introduced over the past decades for all but the high performing Housing Taxonomy bracket.
- **Negative tilt:** a set of progressively tighter penalties should be imposed on the poor and struggling performers that do not improve over time.

5.2 THE EUROPEAN HOUSING FUND

The European Housing Fund would balance the countercyclical forces moving residential housing from private/public to institutional portfolios, while simultaneously boosting the investment needs of social housing providers.

Boost the investment needs of social housing providers

In 2018, the High Level Task Force on Investing in Social Infrastructure in Europe set out a new European level commitment to transform (social) housing into an asset class for institutional investors:

In Europe, when financing infrastructure we should put less pressure on public finances. Long-term institutional investors are searching for low risk inflation-linked long-term financial instruments to match their long-term liabilities. After the recent financial crisis, the EIB and national promotional banks and institutions strengthened their role, stepping in to support projects by providing guarantees, after the collapse of the mono-line industry, and co-investing with commercial banks providing longer duration and lower costs. (Fransen et al. 2021: 49)

The report noted the critical role that the European Investment Bank should play in the process. Indeed, the EIB has recently increased its loans to social and affordable housing, for retrofitting existing housing and increasing new supply, both in rural areas and in cities with very severe housing shortages (EIB 2020). The EIB lends to housing associations, cities and municipal companies, regulated social housing providers, national and local promotion banks, and commercial banks and financial intermediaries. For example, in April 2021, the EIB agreed to lend up to €27 million to Sociedad Anónima Municipal Actuaciones Urbanas de Valencia (AUMSA), a municipal company owned by the city of Valencia, to finance the construction of new affordable public rental housing. In June 2021, it agreed on a EUR 150 million credit to Erste Bank, which in turn would channel the loan to limited-profit housing development companies, commercial property companies and local authorities. Earlier in 2019, the EIB had provided French social housing providers with a EUR 500bn loan. *Yet its portfolio of loans to social housing projects across Europe, roughly at EUR 1.2 bn, is smaller than Blackstone's BPPE fund investments in residential assets in Germany and Holland (EUR 1.9 bn).*

The EIB should therefore be complemented with a European Housing Fund (EHF) which would boost the investment needs of social housing providers to stop the decline of affordable social housing provision across Europe. Beyond new construction, the Fund could complement the European Recovery Plan funds in order to address the important renovation and maintenance required for the decarbonization of the European housing stock. Housing Europe (2022) recently estimated these additional investments needs to amount to about 10bn € annually up to 2050. Investment gaps, housing shortages and unaffordability recall the massive collective efforts needed after the World Wars to extend housing supply. During those times, European countries had already made use of diverse financial instruments to earmark capital for social housing construction purposes. Many of these institutions have been cut back or abolished in the liberalization movements since the 1980s, while some remnants are still in place in financial systems of member states.

The EHF could operate in tandem with, and in support of, existing national arrangements and its funding instruments could be inspired by some of the successful national housing finance models which have created *special capital circuits earmarking specific funds in favor of social housing production*: in Sweden or Germany, the national pension and social security funds have been used to finance the production of social housing and governments obliged insurance companies to invest considerable sums in residential housing construction. In France, the central savings bank (CDC) centrally pools regional savings and earmarks them for mortgage lending to social housing providers. While several countries have made use of para-public or private mortgage banks to issue "social" covered bonds at lower lending rates and including tax subsidies to make funds available to social housing providers. As most of these institutions also serve as providers of municipal credit, they could equally strengthen municipal housing companies.

The European Housing Fund could thus complement the EIB's rather modest response to massive demand for residential investments, but it could also go beyond the EIB's functions. The EIB's lending to social housing does not address one of the key drivers of financialization of housing in Europe: the move from private/public into institutional ownership attending the collapse of housing bubbles. In other words, the EIB does not function as a countercyclical force that could ring-fence non-performing housing loans from the (political) pressures to transfer the underlying collateral (i.e. houses) into institutional ownership, as the case of Spain's SAREB illustrates well.

Countercyclical force: In contrast, the EHF should be set up to function as a countercyclical force that ring-fences the collapse of housing asset bubbles that typically result in the transfer of housing units from local private/public ownership into institutional portfolios. It would circumvent the political difficulties and obstacles – for example the pressure on public budgets – that prevent national authorities from taking into permanent public ownership the housing collateral related to non-performing mortgage loans. It would also reverse another recent European-level market-based solution that will increase institutional investors’ footprint in housing markets, the securitization of non-performing loans discussed in Chapter 3.

Instead, the European Housing Fund would become the public owner of distressed housing collateral and ensure that the housing stock it acquires is (or remains) adequate and affordable. As the European experience powerfully illustrates, Member States have come to rely on institutional investors as a countercyclical force in housing markets – a role they can easily perform given their resources, and often, their ability to leverage political influence to purchase distressed housing assets at low prices (see the case of Spain). Member States and European institutions committed to housing as a human right should therefore recognize that such a countercyclical role cannot be left to the market actors like institutional landlords.

Thus, the European Housing Fund would be set up to ensure that the public balance sheet does not simply function as a transmission belt through which distressed housing assets pass from commercial banks’ portfolios to institutional portfolios, as has been the case in several Member States. Instead, the EHF would become a public buyer of last resort, with its countercyclical arm designed to avoid moral hazard (that banks, for instance, factor its buyer of last resort commitments in their mortgage lending decisions).

The American HOLC (Home Owners’ Loan Corporation) of the 1930s is one successful example of a countercyclical state bank intervention in favor of housing consumers (Harriss 1951).

To finance its activities the EHF would initially be capitalized with European common funds and then issue bonds in international capital markets. These bonds would comply with the benchmarks for the ‘high performing’ bucket of the Housing Taxonomy and pay yield in excess of the sovereign benchmark (similar to the EIB bonds). Under the Sustainable Housing regulatory regime described in section 5.1, EHF bonds would become an attractive product for institutional investors interested in housing assets, replacing non-Housing Taxonomy aligned assets in their portfolios.

5.3 A HOUSING RED FLAG RULE ON NEW EUROPEAN-LEVEL REGULATORY INITIATIVES

Ultimately, this study has shown there are key pieces of European legislation with an immediate impact on housing, focusing in particular on the constellation of rules and directives that enable financial actors to construct housing as an asset class. European regulators have implicitly or explicitly participated in de-risking new housing asset classes for institutional landlords, without taking into account the potential implications for the availability, accessibility, acceptability and quality of new housing.

In our proposals for a new regulatory regime for institutional landlords, we envisage that the relevant regulators granularly map out the set of regulatory privileges for housing asset classes extended over the past years and remove those for all but the performing bucket of the Social Taxonomy.

We also propose a Housing Red Flag Rule that requires European policy makers pay close and systematic attention to the broad range of housing asset classes set out in table 4.1 to ensure that as they undergo review, adequate measures are foreseen to reduce the impact they will have on driving housing as an asset class. The Rule would ensure that housing asset classes are ring-fenced from any regulatory easing initiatives. This is one of the key ways in which the European Union can have an impact in this sphere.

5.4 MACROPRUDENTIAL HOUSING MANDATE FOR CENTRAL BANKING

It has been recognized through institutions such as the European Systemic Risk Board (ESRB) that the housing market can be a source of systemic risk in the economy. Economic research also shows that mortgage-credit-driven bubbles are followed by deeper recessions (Jordà et al. 2016). The ESRB, however, is a soft-law institution which has incited some stability council foundations at the national level but has mainly left borrower-side countercyclical policy tools outside the purview of national central banks and the ECB. The most often discussed restrictions – the number of loans, the loan-to-value ratio and the debt-service-to-income ratio – are, if at all, still nationally determined in the Ministries of Finance and hardly put in place, despite warnings of the ESRB about potential systemic risks.

Several independent national central banks in countries with excessive house price growth have recently shown how these measures can be put into place: The Reserve Bank of New Zealand, for instance, has tightened the loan-to-value ratios in 2020, requiring potential mortgage takers to have higher down payments. The Swedish Riksbank, in turn, has tightened the regulations on amortization in 2018: the amortization requirement states that new mortgage takers are to amortize at least one percent per year, when falling in the 50-70% bracket of LTVs, and 2% if above. Moreover, new mortgage takers with mortgages of 4.5 times their income before tax need to amortize at least 1 per cent of their debt. In 2015, the Central Bank of Ireland had already started to regulate the loan-to-income and the loan-to-value ratios at mortgage origination with the intention of strengthening banks and borrowers and as a countercyclical tool against house price increases. As a result of the implementation of these measures, the steep house price increases were reduced without the housing bubble bursting.

In the European context, a more synchronized macroprudential tool-kit of this kind at the disposal of the ECB or, a more formalized coordinated action via the ESRB with more hard-law competencies, would be recommended to prevent house price inflation (or deflation) from spilling over into the broader economy and Europe's urban fabric. The European Commission could also contemplate a mandatory EU level minimum loan-to-value ratio. A potential downside of this kind of countercyclical, macroprudential regulation through central banks are the redistributive consequences since the measures most heavily target lower-income and vulnerable households. When implementing these measures, potential compensation measures should be developed such as government insurance and support programs for low-income households with mortgages or home ownership aspirations.

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