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## Covering the private parts: the (re-)nationalisation of housing finance

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### ABSTRACT

Is state power or control over financial markets really withering? Most narratives/analyses of financialisation see a growing penetration of private capital into everyday life that runs parallel to the increasing power of private financial capital over state policy. Yet housing finance – mortgages – sits at the centre of banking, and banking sits at the centre of the financial system. Large-scale mortgage markets only function where the state wraps around the banking system to remove maturity risks and to limit excessive credit creation. Partial deregulation in the 1990s and 2000s created a crisis that states resolved by re-nationalising much of mortgage finance. This renewed and overwhelming state presence suggests that financialisation is a state-driven story, and that private financial power, stability and instruments require state support above and beyond contract enforcement and prudential regulation.

**KEYWORDS** Financialisation; mortgages; banking; regulation

There are, no doubt, few markets that are not only so controlled as the housing market is by the state, but indeed *so truly constructed by the state*, particularly through the financial assistance given to private individuals, which varies in quantity and in the forms in which it is granted, favouring particular social categories and, consequently, particular fractions of builders to differing degrees.

(Bourdieu 2005: 89–90; original emphasis)

How does housing fit into the dominant academic narratives about the continuous and apparently uncontrollable financialisation of the state and the economy after 1980? Simple versions of this narrative see the financial sector as the epitome of factor (in this case capital) mobility and the main advocate for deregulation unconstrained by any rational (i.e. prudential) policy purposes. A related, more contested narrative sees this deregulation as weakening the welfare state. Both narratives stress the erosion of state power in favour of markets, greater factor mobility and

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deregulation. Finally, more complex narratives/analyses of financialisation stress three different aspects with related causes: the growing penetration of private capital into everyday life, the dominance of shareholder value in corporate governance, and financialisation's negative consequences for growth (van der Zwan 2014). The latter two financialisation literatures largely side-line housing finance in favour of examining public debt or corporate financial aggregates. The first one directly addresses housing finance, but for the most part focuses on phenomenological aspects – how housing changes the mentality of ordinary people (Langley 2008) – or stresses the erosion of the post-war housing regime as what Aalbers (2016) terms 'the wall of money' displaces social housing and increases household mortgage debt.

To what extent do the usual narratives make sense of housing finance before and after the crises starting in 2008? Here I use a genealogy of housing finance markets to amend and extend the housing-related financialisation literature three ways. First, I examine the creation of financial markets in land and housing before the current period in order to understand what is truly novel about the financialisation of housing today. The current wave of financialisation continues state-driven trends that are two centuries old. Second, contrary to the simplistic narrative that financialisation constrains state power, financial markets require a state presence both to exist and for stability (Calomiris and Haber 2014). State power derives from its ability to create credit, money and financial markets. State capacity, particularly state fiscal capacity, and the size of the financial sector co-vary, albeit not necessarily linearly. Put simply, post-war financial repression is historically deviant, not the current wave of financialisation (Christophers 2013; Schwartz 1994), and financialisation requires a welfare state. Today's outsized credit and financial markets only exist because the state provides public financial cover for the private parts of the financial system.

State power or capacity aligns with both financial interests and forms to the degree to which the typical person is caged into routines supporting elite goals through a dependence on credit and obligations to service their debts (Langley 2008). States historically have covered – backed up – both mortgage and industrial credit, but mortgage debt matters more for the average household and is historically prior. States sponsored credit creation to expand their economic base, to reduce the geographic mobility of actors, and to lock actors into routinised behaviour. This said, the state and private financial actors don't always get things right. Indeed, private actors routinely over-expand credit (inside money) and have to be bailed out by the state (via outside money). The revival of state regulation and outright control over mortgage markets, subsequent to the 2008 US

housing market crash and the 2010 collapse of eurozone credit flows, is thus no surprise. States will always attempt to bail out a collapsing financial system if they have the fiscal credibility – the ability to create outside money – to do so.

Thus, third, housing finance is a strategic choice for understanding how state policy affects financial markets because mortgages are central to both bank and household balance sheets. Home equity is typically the average household's largest asset or their largest liability via mortgages, potentially shaping political preferences around welfare state provision (Adler and Ansell 2019; Kemeny 2005; Kohl and Van Gunten 2019). Correspondingly, mortgages are almost always the single largest asset in the formal banking system, typically amounting to 30-40% of pre-1930s bank lending and 50-60% of post-1945 bank lending even before accounting for shorter-term, non-mortgage lending supporting construction activity (Jordà *et al.* 2016). These two factors coincide: as Jordà *et al.* (2017; see also Rognlie 2016) show, returns on real estate rival those on equities, and explain much of the excess of  $r > g$  in Piketty's (2014) argument about rising wealth inequality (see also Fuller *et al.* 2019). Credit creation and day-to-day liquidity in financial markets depends on adequate bank capital and the availability of good collateral. While capital usually means public debt, national and international regulation (particularly the Basel accords) have privileged mortgage-backed securities (MBS) over corporate debt in the risk weighting of assets and allowed some MBS to stand in for capital. While Lapavistas and Mendieta-Muñoz (2018) argue that changes in housing finance markets subsequent to the 2008 global financial crisis (GFC) suggest a halt to financialisation, this analysis suggests that consolidation is a better way to view those changes.

The paper thus has five parts. The first two discuss the relationship between states and money and states and real estate. The third discusses state control over mortgage finance prior to the crisis. The fourth examines the re-nationalisation of mortgage finance after the crisis. The fifth concludes. Space concerns limit extended consideration of specific countries but these can be found in the other articles in this special issue.

## States and money

States are territorially bounded revenue extractors facing interstate competition. Geo-political conflict motivates states to seek more revenue by broadening their economic base and creating efficient extraction mechanisms. The rational choice literature stresses an exchange between emerging European states and domestic holders of *liquid* capital around public debt and around guarantees of the security of investment as the basis for

this broader base. This view sees states and capital holders as independent actors with the same ontological status. This abstract account, while partially true, obscures the two actual deals defining modern states. Put simply, states created modern financial markets not via public debt, but also by creating mortgage markets (Aalbers 2016: ch. 2). The basic deal between states and banks is that banks agree to hold public debt as their capital reserve, in return for which the state grants them an exclusive licence to create new credit money rather than simply intermediating existing savings (Bundesbank 2017; McLeay *et al.* 2014; Wray 1998). Most of that new credit is mortgage debt. Robust mortgage markets helped to expand the economy while literally tying both people and productive and financial firms to the land via debt; this reduced the capital mobility which the rational choice literature posits. Mortgage markets and public debt are thus intimately connected in finance. Primitive forms for securitising mortgages and public revenues predate modern public debt (Buchanan 2017: 50–4) and modern forms of securitised mortgages expand the capital base for national financial systems (Seabrooke 2006).

Blackwell and Kohl (2018) describe four types of mortgage markets, ranging from direct finance through deposit-based finance to bond-based finance and finally state finance. These reflect the lateness of development in Gerschenkron's (1962) sense. Their continuum implicitly reflects both differing degrees of state taxation and regulatory capacity and thus also reflects the financial system's ability to generate new credit without relying on prior deposits. State pursuit of economic growth via support for private mortgage credit and finance in general carries risks. This is most true for Blackwell and Kohl's middle two categories, because direct finance essentially means household self-finance, which by-passes the banking system (Allen *et al.* 2004). Equally so, state finance avoids the two central risks in mortgage finance, maturity mismatch and private actors' inability to collectively restrain excessive credit expansion. Maturity mismatch arises naturally from banks' business model, which is the maturity transformation of short-term deposits into long-term loans. In the next section this risk will be considered.

Private actors' collective action problem arises because banks face competitive pressure to preserve or increase market share by creating excessive credit and thus asset bubbles (Minsky 1977; Polillo 2013). Monetary systems generally are composed of both inside (as in, *inside the financial system*) money and outside money. Private actors create *inside money*, that is, credit to other private actors. Historically this literally meant bank notes, i.e. private money constituting a claim on the bank. The risks around redemption there are obvious. Today two features obscure the redemption problem. First, banks do their accounting in national fiat

money, blurring the distinction between the credit they create and state money. Second, most money is not the physical money populating people's wallets but rather the elaborate network of assets and liabilities various parties have contracted. This includes, obviously, mortgages, which are simultaneously an asset to the mortgagee and a liability to the mortgager, as well as bonds built by combining mortgages into a single saleable security. Most 'money' is this network of contracts rather than 'cash', but the discussion below uses the terms of art inside and outside money. When banks create inside money they simultaneously create both assets and liabilities on their balance sheet (McLeay *et al.* 2014). The extension of credit creates a loan, which shows up as an asset for the bank; the deposit of those loan funds into the borrower's account creates a liability for the bank. New loans simultaneously create assets and liabilities, and thus in principle balance sheets that net out across the whole economy.

But this private credit creation is inherently unstable. Without some mechanism for collective discipline, private financial firms have an incentive to expand their balance sheets by creating excessive amounts of inside money – new loan contracts – in order to retain market share. This new credit creation has a weak public good (in the technical sense of non-excludable, non-rival) aspect to it. Each new extension of credit creates additional purchasing power that potentially validates older extensions of credit, and in doing so validates the collateral backing banks' old loans. Loans made at time  $t + 1$  create cash flow that validates collateral from time  $t$ ; this encourages a new round of lending at  $t + 2$  which in turn validates collateral from  $t + 1$ , and so on. In Minsky's (1977) model, this retrospective validation and the apparent stability that new credit generates eventually encourages speculators to borrow to purchase assets solely on the anticipation of capital gains from flipping the asset to another buyer, rather than borrowing to buy an asset for an expected cash flow that exceeds amortisation costs.

So while in principle new loans generate both assets and liabilities, in practice an asymmetry plagues this accounting balance. While asset values can – and do – change in response to behaviour by market actors, liabilities in the form of debt have values that remain stable in nominal terms until a formal bankruptcy. If asset values fall when a panic or crisis starts, then banks can fail as their liabilities (deposits) remain unchanged while the collateral behind their assets collapses. This creates the redemption problem around inside (bank-created) money; collateral behind bank assets becomes insufficient to net out bank deposit liabilities. So the public good aspect of new credit has a downside. Bank efforts to retain market share become less and less likely to be validated as debt grows past the point where income can service it. For example, Monter (2011: 448;

my emphasis) notes that even in the very conservative Spanish banking system, which had dynamic provisioning for its reserve base and which lacked structured investment vehicles,

In one hand [sic], low interest rate levels and tax-benefits encouraged households to demand mortgages; on the other, shortterm profits incentivised bank managers to grant loans *even knowing that the borrowers would not be able to repay unless real estate prices continued to grow incessantly.*

Banks chasing market share and private actors seeking speculative gains thus create the possibility for a ‘Minsky moment’, an endogenous economic shock that reduces the value of debt-financed assets across the entire economic system. This shock creates an overhang of liabilities on private balance sheets, bankrupting the financial system. Only an authoritative, legitimate actor can constrain private actors from this excess credit creation (in normal times) or rescue them from the overhang of liabilities (in moments of crisis): the state. The potential fiscal and monetary costs of crisis typically lead states and central banks to try to discipline banks – a difficult task.

The state creates *outside money*. Unlike inside money, state-created outside money does not simultaneously create an explicit financial liability, but rather rests on the implicit stream of future tax revenue. The state can potentially re-validate devalued private assets and eliminate the overhang of liabilities on bank balance sheets by buying up devalued assets at par with new outside money. The US Federal Reserve Bank (Fed) and European governments did this after 2008. The European Central Bank (ECB) indirectly validated bank assets by buying approximately 20% of existing MBS/covered bonds and much of the new public debt created at the national level to rescue banks. Indeed, central banks are the paradigmatic example of the fusion or co-constitution of public and private (financial) power, given that many central banks were or are privately owned from a narrow legal point of view. New outside money extinguishes itself in the payment of future taxes. Tax capacity – the implicit asset matching the state’s new liabilities – rests on the state’s legitimacy, state capacity (Mann 1986), and the size of the economy. Whence comes this tax capacity?

## **States, money and land**

The previous section showed the connection between inside money and outside money in moments of crisis. But what about normalcy? Why do states have an interest directing new credit toward mortgages? States have always tried to monetise their economies. Modern economies are both

highly monetised and built on enormous volumes of fixed, long-term agricultural, industrial, and residential investment. But these investments potentially generate maturity mismatch in the financial system. Maturity mismatch occurs when an actor or organisation borrows in credit markets on a short-term basis and then reinvests the proceeds into less liquid, longer duration assets (or in the case of banks creates a long-term asset via a loan and thus automatically creates a short-term liability in the form of deposits). Maturity refers to length of time before a given debt must be repaid. A loan or bond with a one-year maturity must be repaid in one year; a 10-year loan or bond after 10 years. Commercial lending (maturities less than 180 days, typically) is largely free of the mismatch problem.

Mismatched maturities create the risk of large-scale depositor panics and thus bank runs: if a short-term lender calls in their loan from a borrower who has turned short-term credit into a fixed, long-term investment, that long-term investor may not be able to generate enough cash to repay the short-term loan. This drives either a panicked liquidation of the long-term asset at a loss, default on the short-term liability, or both. Banks are the classic locus of mismatched maturities in most economies (Verdier 2003). Modern states built themselves and their revenue streams on a dual maturity mismatch around investment in both land and industry and have generated a number of institutional devices to eliminate or remediate the maturity mismatch problem. For example, deposit insurance stabilises what would otherwise be short-term deposits.

We tend to see the industrial mismatch as the first of these two mismatches, because the industrial revolution, late development and modernity are so intertwined. Banks funded considerable industrial investment in C19, but they did so with substantial state backing (Gerschenkron 1962; Jordà *et al.* 2016: 111; for critiques, see Verdier 2003). The Bank of Prussia, for example, acted as a lender of last resort for banks making industrial loans. Yet the industrial mismatch grew out of earlier or concurrent state efforts to modernise agriculture in Europe, and to bring new land into production in the European settler colonies (see e.g. Wells 1989). Modernising agriculture in C19 meant modernising finance to generate the mortgages funding new capital investment; modernising finance meant overcoming the maturity mismatch problem inherent in mortgages, while controlling banks' inherent tendency to over-extend credit.

European states reacted to Britain's rising industrial power and the residual threat of the French Revolution by freeing peasants from serfdom and sponsoring agricultural modernisation (Blum 2017). Differences in local political coalitions and agricultural production systems unsurprisingly generated considerable variation in both the timing and success in modernising agriculture. But most imitated the Prussian Stein-



Hardenberg ('Jena') reforms in some fashion: peasants obtained land and freedom in exchange for debt owed to their former lords or the state. That debt was transmuted into a sellable claim, creating capital (in the sense of financial assets), a capital market and, crucially, tying both former peasants and lords to the land, and former lords to the state as issuer of those claims. Modernising nobles needed capital to match this newly freed labour force. Prussian bankers and the state jointly developed the basis for the modern *pfandbriefe* (covered bond),<sup>1</sup> with the King of Prussia fronting the initial capital for new land banks to hold new mortgage bonds (Kohl 2015). A key element was joint and several liability for contracted mortgage debt, virtually all of which eventually arose from local deposits and went to local borrowers. This encouraged actors with good credit to enter the market as borrowers and also to exert social discipline on their fellow indebted nobles (Buchanan 2017: 58–61). Functionally, this helped resolve the maturity mismatch problem. Depositors needed to maintain their deposits to have future access to credit; as suppliers of capital to the banks, depositors would lose from a bank run; localised deposit bases meant many depositors had face-to-face relationships with debtors. Current German specialised mortgage banks have the same institutional format.

This system matured into the rural *Raiffeisen* cooperative lending banks, which the Prussian *Hypotheken-Aktienbank* backed, and expanded to include mid-sized peasants (Frederiksen 1894). *Pfandbriefe* carried interest rates, which partially reflect creditworthiness, similar to those of government debt, because – you can see where this is going, right? – of their implicit government guarantee. *Pfandbriefe* eventually found their way on to the Berlin stock exchange, in essence creating a capital market around securitised mortgages. European states, and later the United States, imitated the Prussian system in varying degrees, for example *pan-tbrev* in Denmark. Rising British food demand spurred mortgage innovation in the mid-1850s. Thus the French *Crédit Foncier*, founded 1852, innovated the self-amortising, fixed payment, term-limited mortgage.

As Blackwell and Kohl (2018) note, the boundary between deposit-based and bond-based systems is one of degree. Nonetheless, one consistent feature across both systems relates to scale: the larger the volume of mortgage capital being mobilised relative to the economy, the greater the degree of state intervention to resolve collective action problems around maturity mismatch and excessive credit creation. This could take the form of formal state guarantees, or rules binding depositors and borrowers together. Blackwell and Kohl deploy their typology to explain variation in the dominant housing type between outer (single family homes) and central (apartments) Europe. But they also reveal a north to south

gradient of state intervention on both the supply side (availability of mortgage lending) and demand side (availability of long-dated bonds) that reflects the degree of state fiscal capacity for backing up banks. In short, modern credit markets could not scale without substantial state financial support.

Consider the United States, which absolutely has the largest volume of mortgage debt, the largest volume of securitised mortgage debt (which in turn is important in global financial markets), and a well elaborated ‘plumbing’ system linking public and private credit flows. Centralised administrative capacity came late to the United States, at the beginning of C20. At that time the Federal government created both a central banking system and a set of regionally organised and (initially) state capitalised Federal Farm Loan Banks (FFLBs). These imitated the *Raiffeisen* system, and set the pattern for the later Federal Home Loan Banks (FHLBs) (Glock 2016; Kohl 2015). As with the *Raiffeisen*, farmers borrowing from the FFLBs were obliged to help capitalise the banks by purchasing shares. The FFLBs had implicit state backing via an emergency line of credit at the Treasury (Glock 2016). This enabled them to shift from state to private capitalisation by selling bonds collateralised by mortgages. By contrast, earlier systems of private securitisation without public cover tended to fail (Snowden 2010).

In the Depression, the US government created the FHLB system. Along with deposit insurance, the FHLBs stabilised the deposit base for mortgage lending by loaning banks money they could then relend as mortgages. On the other side of the financial system, the Federal National Mortgage Agency (now Fannie Mae, later supplemented by Freddie Mac) bought up new mortgages. The FHLBs and Fannie jointly resolved the maturity mismatch (Schwartz 2012). They also created a national mortgage market and expanded the volume of money available for mortgages. By the 2000s, the FHLB-Fannie Mae/Freddie Mac mortgage system financed roughly two-thirds of all US mortgages, and 80% including the other Federal government-sponsored mortgage agencies.

The state’s role is also visible in the largest European covered bond systems. Denmark’s *pantbrev* system, which relative to total mortgage debt and to gross domestic product (GDP) is the largest in the world, started in 1786 with a state credit bank that funded peasant land purchases (Tillotsen 1989). Declining creditworthiness for Danish state bonds sparked this intervention, which was intended to modernise agriculture and thus increase the state’s revenue base. The Danish Mortgage Credit Act 1850 modernised mortgage finance by removing maturity risk on mortgages through the ‘balance principle’, under which mortgage payments directly fund interest and principal payments on their *pantbrev*

mortgage bonds. A strict 80% upper limit on loan to value ratios for residential mortgages managed credit risk. The Danish state also gave *pan-tbrev* a monopoly in domestic long-term bond markets.

The Swedish state similarly centralised mortgage banks into the General Mortgage Bank of Sweden in 1861. As in Denmark, this bank issued long-term bonds into the international market, and short-term ones into the domestic market, and then re-loaned the funds to the private mortgage banking system. This system eventually transmuted into urban housing finance. In 1902 a state commission generated a system for state-subsidised financing of rural housing to help neutralise working class socialism (Fälting *et al.* 2000: 38). The Home Ownership Fund subsidised one-quarter of all new single family homes before 1939. At that point, the State Housing Credit Fund and a system of mortgage guarantees replaced it. By the 2000s, mortgage bonds financed roughly 70% of Swedish mortgages (EMF 2017). In both Sweden and Denmark, as in the United States, securitisation systems required a public backstop.

Deposit-based systems faced similar collective action problems around maturity mismatch, but solved them either through social ties or less direct forms of state intervention. Localised savings banks (building societies) all originated from relatively tightly knit communities in which trust and face-to-face social ties bound people together, like British Quaker banks. But as soon as banks outgrew those ties, more formal systems for securing deposits emerged. In the post-war era these took the form of depositor insurance and contract savings schemes in which consistent deposits to long-term savings accounts secured access to a subsidised mortgage loan once a down-payment had accumulated (Boleat 1985; Zimmermann 2013). On the asset side of the balance sheet, states organised insurance against mortgage default, thus decreasing depositors' incentive to panic. For example, in the Netherlands, a state-backed private firm, the Homeownership Guarantee Fund (*Stichting Waarborgfonds Eigen Woningen*), insures residential MBS against default.

Later developers resorted to more visible and sometimes less effective pure state finance, often operating alongside private finance. The French *Crédit Foncier* accounted for roughly one-eighth of all mortgages by 1865 (Hoffman *et al.* 2008: 164–5). But the bulk of mortgage lending was one step up from self-finance, relying on a dense network of notaries who in turn connected local supply and demand for credit. Later, the state-funded *Crédit Agricole* became the major force in mortgage markets. The Spanish state established the *Banco Hipotecario* in 1872 with a monopoly on the issue of mortgage bonds (Tortella 2000: 166–7). Like the *Crédit Foncier* it soon turned to financing urban housing. Despite their failure

to fund agriculture, these official institutions did promote cadastral and legal reforms that helped the later expansion of residential mortgages.

Modern mortgage systems thus emerged from state efforts to modernise agriculture, and, to a lesser extent, urban housing. These systems of land finance supplied the DNA, the organisational format, for the subsequent expansion of urban housing finance. In varying degrees, private actors – i.e. banks – in these systems were enmeshed in a system of public supports. As Blackwell and Kohl (2018) argue, much of this variation is a function of relative lateness or, more precisely, varying responses to the challenge of late development. Markets where self-finance predominated – largely southern and eastern Europe – were overwhelmingly those in which states had trouble enforcing property rights, extracting revenue, disciplining private actors, and using their own credit to access global capital markets. Relative to their economies, much less mortgage lending got mobilised. Late developers lacked the state capacity to introduce and regulate formal systems for mortgage finance. This produced a north-south and west-east gradient of high to low mortgage debt relative to GDP still visible in Europe.

The private parts of mortgage finance systems remained very visible everywhere, like the shower head or tap in a washroom. But those bits relied on public plumbing hidden behind the walls. This public plumbing brought liquidity to the taps and often carried it away at the other end. States organised the supply of mortgage finance, banks intermediated it to buyers, and then public and private pension funds and life insurers removed the maturity risk from banks by buying up securitised and quasi-securitised mortgages to resolve their own maturity mismatch problems. (Their maturity problem was the inverse of banks: they had long-term liabilities that needed to be matched by long-term assets.) Alternately, states could transform what otherwise would be short-term deposits into long-term deposits through savings contracts or deposit insurance. In either process, inside money could expand elastically with demand for housing, knowing it was backed up by outside money, and outside money could rest comfortably on the revenue generated by an expanding economy whose growth stemmed in part from construction. After 1950, construction typically accounted for about one-quarter of gross fixed capital formation in the rich Organisation for Economic Cooperation and Development (OECD) economies.

Four points emerge from this. First, state initiation and intervention brought large-scale and stable agricultural mortgage systems into being. Second, states used those mortgage systems (among other tools) to assure a stable and productive population in their territory. By fixing people into place – by creating, in effect, location-specific assets – states assured

themselves of sources of future revenue. State policy in agriculture thus anticipated or paralleled efforts to generate industrial investment via state guarantees for banks undertaking maturity transformation. Third, these financial systems became the model for post-World War II housing finance, with much the same goals in mind. States faced mobilised working classes and thus complemented private efforts to segment the industrial working class and preferentially employ married and mortgaged men with a broader strategy of pacification through property (de Grazia 2009; Hayden 2002). Fourth, the organisational format – self-amortising, long-duration mortgages funded from institutional capital markets by organisations with thin capitalisation – for these efforts came from the older land banks, fused with American practices designed to head off electoral majorities for communist or socialist parties.

### **Towards the global financial crisis**

In the ‘Bretton Woods’ era of activist states and capital controls, states took on an even more obvious and prominent role financing housing, expanding earlier patterns in both quantitative and qualitative terms. States both supplied more money and determined the kind and quality of housing funded by that money. States democratised homeownership using cooperative and public housing to ensure that the bottom half of the income distribution could find and afford upgraded rental housing or ownership. Proportional to population, housing construction boomed everywhere. At one extreme, the Swedish ‘one million home’ project built about half a million units, replacing older, smaller, lower-quality apartments with modernised (and standardised) units; over the longer period of 1960 to 1975 roughly 1.5 million new units were built. Scale this effort against Sweden’s population of roughly 8 million in 1970: roughly one-third of Swedish households probably entered a new unit (Hall and Vidén 2005). But France’s *banlieu* of *Habitation à loyer Modéré*, Britain’s council housing, and more variegated German projects like Berlin’s *Märkisches Viertel* also all expanded and upgraded housing. For example, in 1948 96% of the French population lacked the complete package of indoor toilets, running water, heat, electricity and piped gas, and only 20% of Parisian households had any bathroom beyond a water closet (de Grazia 2009: 438–44). Similarly, in 1960 45% of dwellings in Sweden lacked a bathroom, but only 5% did by 1975 (Hall and Vidén 2005: 306). Building and upgrading depended on state financing. The French *Crédit Foncier* monopolised and subsidised lending to the private sector, the *Caisse de Dépôts* likewise for the public sector. Even in the apparently market-oriented United States, the Federal Housing Administration and the

Veterans Administration were guaranteeing over two-thirds of all US mortgages, while, as noted above, private lending through savings banks sat in the middle of the giant FHLB-Fannie Mae plumbing system.

Private markets unsupported by the state could not supply open market credit on the volumes would-be homeowners or renters demanded, as developments in Italy and Spain showed. In Italy, which lacked public mechanisms for dealing with maturity mismatch or arranging securitisation, most lending occurred in informal markets, and was matched by informal and often extra-legal construction. Securitisation did not become legal until 1999; after that, the volume of covered bonds and MBS expanded from nil to 11.9% of GDP and outstanding mortgage debt grew from 9% to 22% of GDP, 1999 to 2016. Despite this, per capita mortgage debt was only a tenth of that in bond-based Denmark (European Mortgage Foundation 2002, 2007, 2017, 2018).

By contrast, the Franco regime in Spain undertook a massive state effort to demobilise the working class its successful industrialisation policy was creating (Allen *et al.* 2004). In 1957, Spain's housing minister declared, '*Queremos un país de propietarios, no de proletarios*' (We want a country of owners, not proletarians) (López and Rodríguez 2011: 6). Spanish owner occupation rose from about 45% in the 1950s to 64% in the 1970s, well above contemporaneous levels in northern Europe and Britain (Boleat 1985: 228). The Franco regime understandably abjured a direct role in construction and funding, but nonetheless planned this ambitious expansion of the housing stock and supplied (via private banks) subsidised loans for 'officially protected housing' (*viviendas protegidas*) at a 70% loan to value ratio and with a subsidy amounting to nearly 30% of construction costs (Belsky and Retsinas 2004: 6). Officially protected housing was defined, as in the United States, as a single family home or apartment meeting minimum quality and size standards to be used as a principal residence. Standardised housing enabled standardised mortgage contracts which enabled easy securitisation. In 1982, the Spanish Mortgage Bank began buying mortgages from savings banks (Boleat 1985). Its monopoly on securitising mortgages ended in 1994, and by 2009 outstanding covered bonds and MBS amounted to 49% of GDP (European Mortgage Foundation 2002, 2007, 2017, 2018).

Thus, OECD homeownership rose from roughly one-third of households to two-thirds of households, albeit one generation behind the United States and a handful of countries like Spain. Spain and Norway attained the US level of owner-occupied housing (OOH) of 65% in 1981, Belgium, Britain and Italy by roughly the mid-1990s, and France, Denmark and Sweden not until the 2000s. That said, some caution is in order about 'owner occupation', given that interest-only loans constituted over 70% of

Swedish mortgages (64% OOH), 60% of Danish mortgages (50% OOH), half of Dutch mortgages, 20% of Norwegian mortgages (80% OOH) and 20% of British mortgages (60% OOH) in 2016 (EMF 2017). Without amortisation, owners are effectively renting from the bank while speculating on capital gains. This once more highlights how state agencies or activity sandwich housing finance: entering retirement without an amortised mortgage is risky in the absence of stable, reliable and robust pensions, and there is a strong relationship between the size of aggregate outstanding mortgage debt and funded public and private pension systems (see Tranøy *et al.* 2019).

### **Private actors' private problems become public problems**

Financial deregulation seemingly diminished this state role after the 1970s. Banks offered new products, lengthened maturities, permitted smaller down-payments, and in general took on more risk. In the United States, where the Fannie Mae/Freddie Mac system could not legally absorb mortgages for houses costing more than 150% of the median or from borrowers with bad credit, the private sector expanded availability of 'subprime' mortgages to the latter and securitised mortgages for the former. Private banks displaced formerly dominant state housing banks in Norway and Iceland. Bourdieu (2005) shows how the French state shifted the centre of gravity away from collective housing jointly financed by the state and industry towards bank-financed single family homes after the 1970s; mortgage securitisation became possible for banks after 1988 and for non-financial firms after 1993.

Deregulation reflected and triggered political pressure to expand mortgage lending in Europe. On the demand side, the broad population sought ownership for emotional and financial reasons. On the supply side, big banks sought ways to lend across borders, but the only ways to do so profitably were to harmonise mortgage regulations across the EU or find some way to generate tradable mortgage-backed securities. Equally so, the ECB sought a unified credit market in the eurozone, while the EU sought regulatory harmonisation via greater capital mobility and a voluntary code of conduct for mortgage lending (Aalbers 2016: 45; Abdelal 2007). True regulatory harmonisation for mortgage origination was politically impossible, but harmonisation sufficient to permit securitisation was relatively less complex. Private pressure groups, like the joint European Mortgage Foundation and European Covered Bond Council ([www.hypo.org](http://www.hypo.org)) backed these initiatives.

In this context, global competition among banks motivated a search for a way to move otherwise illiquid mortgage debt off European banks' books. American banks' access to Fannie and Freddie enabled them to

move mortgages off balance sheet, freeing up risk-adjusted capital for further lending. Were European banks to expand mortgage lending, they would also have to expand loan loss provision and capital proportionately for mortgages kept on their books. Unlike the United States, bank deposits still financed the majority of European mortgages before and after introduction of the euro. Nonetheless, the share of European mortgages (both covered bonds and MBS) that were securitised doubled from roughly 12% in 2000 to roughly 27% in 2010, albeit with considerable national variation; Germany, Denmark and Sweden were the securitisation champions relative to local GDP, although Spain overtook Sweden in 2004 (European Mortgage Foundation 2002, 2007, 2017, 2018; Hardt 2000: 10).

Deregulation and product innovation increased the weight of housing and mortgage debt (which of course is someone else's asset) in European and other economies. Driven largely by housing, the ratio of assets to GDP in the rich OECD economies more than doubled after the 1970s (Jordà *et al.* 2017: A63). The share of houses and real estate as a store of wealth increased, with the investible (i.e. mortgaged) part of the housing stock accounting for about one-fifth of wealth in major European economies and all residential housing about half of the capital stock (Jordà *et al.* 2017: 8). Germany aside, European nominal housing prices doubled or tripled from 1995 to 2008 ([www.BIS.org](http://www.BIS.org)); the typical German household was income constrained through the 1990s by reunification taxes and then in the 2000s by wage restraint, but after 2010, as these forces dissipated, prices began rising.

All this set the stage for the GFC and euro crisis. The medium-term origins of the US and eurozone crash lay in a renewed maturity mismatch and excessive credit creation. Briefly, over the long run, rising income inequality created a global pool of investible funds – Aalbers' (2016) 'wall of money'. This money had to flow into something, and the scale of housing finance made it an obvious channel. Banks exploited deregulation to recreate the maturity mismatch that prior state intervention had removed. Rapidly expanding mortgage credit inflated home prices, spurring economic growth (Becker and Schwartz 2005), and thus creating even more demand for mortgage lending – the Minsky cycle described above. Banks also offered newer and riskier products, again with considerable national level variation. Mortgage debt drove the more general increase in debt (and thus lending) in rich countries, with the average ratio of bank credit to GDP rising from 78% of GDP in 1995 to 111% of GDP in 2007 (Jordà *et al.* 2016: 114). Northern European banks imitated and competed with US banks by borrowing short term to originate mortgages in the United States, while also recycling northern current account surpluses to southern



European banks. The former was dangerous in the short run while the latter was unsustainable in the long run. In the event, losses in the US housing market crippled northern European banks, and the subsequent collapse of lending to southern Europe caused banks there to fail.

So the more purely private securitisation markets emerging in the 2000s proved unstable. In the United States this turned into a pure banking crisis. In Europe, the banking crisis turned into a crisis of public debt as states nationalised banks, and as private investors recalibrated their expectations about future growth and thus future tax revenue.

States everywhere in the rich OECD stepped in to cover private losses with outside money, with much of this coming from the US Fed via currency swaps. States also re-nationalised mortgage finance in two different ways. First, overt full or partial nationalisation of failed banks: in Britain, Northern Rock, HBOS and RBS; in the low countries, ABN-Amro, Fortis, Dexia, SNS and, via aid, ING; in Spain, consolidation of smaller banks into Bankia and Catalunya Banc; in Ireland, Anglo-Irish and Quinn Group; in Germany, Hypo Real Estate and Commerzbank. The US government nationalised Fannie Mae and Freddie Mac and organised mergers of failed banks. Second, the Fed and ECB used quantitative easing to re-value devalued mortgage debt, directly in the case of the Fed, and indirectly in the case of the ECB. The Fed bought roughly \$1.7 trillion of Fannie Mae and Freddie Mac MBS, or about 30% of outstanding MBS. The ECB (via national central banks) absorbed €1.8 trillion in sovereign debt and an additional €600 billion of corporate debt, or roughly 10% of the outstanding volume and, as Reisenbichler (2019) shows, €250 billion in MBS, or roughly one-fifth of the outstanding volume of covered bonds and MBS in the eurozone. Meanwhile, regulators and legislators moved to lower the ceiling on loan-to-value limits, to require larger down-payments, to limit or phase out interest-only loans, and to gradually phase out tax subsidies.

In short, everyone moved back to something closer to the Bretton Woods era housing (and corporate) finance, with the state both re-wrapping itself around notionally private lenders and holding significant volumes of mortgage debt.

Three critical problems with the European response to the 2010 should be evident. First, in the run-up to the crisis, the actor that theoretically should have been imposing discipline on banks, the ECB, simultaneously sought to integrate, expand and perfect financial markets in the eurozone, enabling the expansion of cross-border lending that led to the crisis. This paralleled the Fed's regulatory insouciance in the 2000s. Schelkle (2017) makes a strong case for monetary integration and risk sharing, and this was in fact part of the 'euro experiment'. And, indeed, financial

integration did allow (mostly) northern resources to flow (mostly) south. Employment and real output, in the form of housing, boomed in countries like Spain. There, mortgage debt expanded from a below-EU average of 31% of GDP in 2000 to an above-average 57% in 2010, while the stock of covered bonds exploded from €12 billion to €343 billion (EMF 2002, 2018). The ECB read this explosion of credit and the related increases in output, employment and fiscal revenue as positive trends and took no steps to hinder the build-up of southern banking liabilities to northern banks (Schwartz and Tranøy 2019). But it was in fact the Minsky cycle described above.

Second, the ECB is only loosely linked to a traditional state with the tax capacity to extinguish newly created outside money. This is quite apart from any ideological orientation against creating outside money by monetising new public debt and thus risking inflation. Whether or not the EU or eurozone constitutes an optimal currency area (see Schelkle 2017, for the best analysis), the EU's weak fiscal capacity makes it impossible for a central state authority to generate outside money, and the relevant state (the EU) does not align with the eurozone. (The entire debate about banking union and euro-bonds revolves around these issues.) On the tax side the EU relies on subventions from member states, so it cannot credibly back its new liabilities (new outside money) with the implicit asset of its tax base. The actor that issues outside money (new liabilities) is not connected to the actors that control the asset (tax capacity) corresponding to that liability. On the spending side, where deficits or automatic stabilisers might help mitigate a regional economic crisis, the EU budget amounts to a derisory 1% of EU GDP. By contrast, US anti-poverty programmes amount to over 2% of US GDP, and broader programmes like the old age pension shift 5% of GDP with significant regional redistribution.

Third, although eurozone nations in principle can issue new public debt, they can no longer issue new outside money. In principle, the stability and growth pact sets limits; in practice, there are fears of a bank debt-state debt doom loop in which rising public debt calls into question bank solvency. The stability and growth pact constrains national governments from a stronger fiscal response that might enlarge the economy and thus their future revenue base. Ultimately, outside money has to take the form of cash or electronic money from the central bank to fix the hole in banks' balance sheets. This dilemma ultimately drove the ECB to intervene indirectly, bailing out governments that had bailed out or nationalised local banks. Here, the relative scarcity of MBS in the eurozone also limited the ECB's room for manoeuvre even after the launch of the Securities Market Programme (2010), Long Term Refinancing

Operation (2011) and Outright Monetary Transactions (2012). On the one hand, the ECB and national central banks could not easily remove defaulted mortgages from banks' balance sheets. On the other hand, by directly absorbing public debt rather than mortgages, the ECB also shrank the supply of high quality (AAA) collateral assets, limiting banks' ability to generate new credit. By contrast, the US Fed's version of quantitative easing removed damaged MBS from banks' and Fannie Mae/Freddie Mac's balance sheet, enabling them to resume mortgage lending. Proposals for a banking union or common public debt instrument are efforts to remediate these structural deficiencies by creating assets that the ECB can legally buy up to rehabilitate banks. Put simply, the ECB was both relatively unwilling (until Draghi's 'whatever it takes' in 2012) and unable to respond as thoroughly as the US Fed to the GFC.

Eurozone countries' inability to create new outside money proved a crippling liability. By contrast, in non-eurozone Britain and Denmark the state supplied outside money to banks, quietly in Denmark, and more openly in Britain. In Denmark the state promulgated a series of bailout packages at the behest of the banking sector. The state first guaranteed banks' creditors (including depositors) by establishing a state owned enterprise (SOE), *Finansiel Stabilitet A/S*, which would liquidate banks whose losses violated capitalisation requirements. The state funded this SOE through a quasi-mandatory levy on banks participating in Denmark's quasi-private deposit insurance scheme. Second, the state made DKK100 billion (c. €13 billion) available to banks to bolster their capitalisation. In the event, *Finansiel Stabilitet* took over nine banks and supported a further 56 (Sjögren and Jes-Iversen 2013). The British government committed roughly €500 billion to bail out its banks, partially or fully nationalising three major banks (Grossman and Woll 2014). Neither embarked on full-scale fiscal expansion however.

### **Financialisation cannot occur without the state**

What are the implications? First, the stability of all modern financial systems rests on credit money – largely private contracts – guaranteed by the state. The financialisation literature focuses too much attention on the water in the tub rather than the plumbing behind the walls supplying the water. This makes it too easy to see only the private spigot at the end of the state plumbing as the major force in financialisation, and to see financialisation purely as a product of state weakness. But as Aalbers (2016), Langley (2008) and Schwartz (1994) argue, this is consistent with long-term state strategies shifting both risk and risk abatement onto individuals. But this highlights the internal contradiction in the financialisation

process. Massive mortgage debt requires both some form of state-supported securitisation and, paradoxically, a more robust welfare state. The relationship between high house prices, interest only mortgages, and support for and compliance with the Scandinavian (and Dutch?) welfare states particularly deserves more scrutiny. As Tranøy *et al.* (2019; see also Anderson and Kurzer 2019 and Kohl and van Gunten 2019) show, the highest levels of household (largely mortgage) debt are found where the welfare state also props up the debtor side of the balance sheet with income stability. While the United States is often held up as the epicentre of financialisation, the highest levels of household (and corporate) debt in relation to income (GDP) are in Europe (again, Germany excepted) ([www.OECD-iLibrary.org/statistics](http://www.OECD-iLibrary.org/statistics)).

Second, the centrality of housing and the state's clear role on both the supply and demand side of housing finance suggests both natural limits to and a second contradiction within the financialisation process. The 're-nationalisation' of US mortgage finance parallels the 're-domestication' of European sovereign and mortgage debt during the euro crisis. In both cases housing finance now relies once more on domestic mobilisation of capital (see Epstein 2014 for Europe). This reverses ECB efforts to Europeanise finance and to disperse ownership of public debt via quantitative easing. Moreover, mortgage debt is larger relative to GDP almost everywhere in Europe, whether we compare 2015 to 2007 or 2001 ([www.OECD-iLibrary.org/statistics](http://www.OECD-iLibrary.org/statistics)). European banks are more exposed to mortgage debt than US banks. Nationalisation and domestication of banking, as well as tighter regulatory limits on credit, return housing finance to something closer to the status quo of the 1990s. Is financialisation halted, as Lapavitsas and Mendieta-Muñoz (2018) argue?<sup>2</sup>

Given that crisis drove a slowing or reversal of prior trends, this is not a natural market equilibration. Rather, financialisation, understood at the most basic level as the transformation of more and more income streams into asset streams, endogenously generated its own limits. More assets imply more liabilities, so on the one side, an increasing volume of assets requires increased income for debtors and more important increased income stability. Political pressure for financialisation is strongest in societies with the weakest left-wing political parties and welfare states, but those are precisely the societies where unequal and unstable incomes limit asset creation, and in which inadequate regulation is likely to trigger a crisis.

Thus, third, the argument that financialisation somehow represents a triumph of private money over the state or a collapse of state power cannot be right, except in two more nuanced formulations. Financialisation is in large part mortgage-isation, and mortgage-isation

requires active state support. Mortgage lending is what banks do (Jordà *et al.* 2016), and they cannot do it in their current volumes without state cover against maturity risk. Eurozone banks historically tended to hold mortgages on their books. The ECB and financial elites started a process of financialisation, creating the basis for a European MBS market. But the relative lack of EU tax and fiscal capacity for backing securitised lending meant that the share of new mortgages bundled into covered bonds and MBS shrank by 20% from 2011 to 2016 (European Mortgage Foundation 2002, 2007, 2017, 2018). Financialisation – the transformation of more and more income streams into tradable financial assets – requires the creation not only of assets, but also necessarily the liabilities that are the counterparts to those assets. Real estate is the single largest potential and actual asset in the global economy. Aalbers’ wall of money has to go somewhere, and real estate remains the most likely place. But because real estate debt cannot be transformed into tradable assets without securitisation, financialisation requires state backing for the MBS market in particular and asset-backed securities more generally. As in C19, the state is the motor behind expansion of this market. The weakness of the ‘European state’ is a brake on financialisation, not the other way around.

## Notes

1. Covered bonds differ from mortgage-backed securities in that they are retained and guaranteed by the issuing bank. MBS typically trade in open markets like any other bond.
2. One argument that financialisation has not halted is the \$1.2 trillion increase in student debt in the United States, 2003 to 2018. But, first, the US government owns or guarantees three-quarters of that debt, suggesting that state involvement is as high as in the mortgage market. Second, growth in student debt tapered off after 2014, suggesting it hit its natural limits in terms of affordability and demography (the student-age population is shrinking absolutely).

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