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# The Great De-Mortgaging: the Retreat of Life Insurances From Housing Finance in US-German Historical Perspective

## "Great De-Mortgaging": der Rückzug der Lebensversicherer aus der Wohnungsfinanzierung im deutsch-amerikanischen Vergleich

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**Abstract:** Recent research in economic history has found that mortgage debt in relation to GDP has taken off in the historical long run (“great mortgaging”), as growing banking assets have been redirected into mortgage credit. This paper maps the parallel long-run investment history of private (life) insurance as the much overlooked second pillar of the financial system. Drawing on in-depth studies of the US and Germany, it finds that a “great de-mortgaging” took place in insurers’ portfolios, with mortgages falling from up to 90 percent in the 19<sup>th</sup> century to below 5 percent today in favor of fixed-income securities. A parallel shift to secondary mortgage bonds has hardly offset this decline, while direct real estate remained largely a residual investment class. Banks’ great mortgaging is thus partly an institutional substitution effect. The paper sees insurers’ asset shift itself as mainly driven by long-run changes in capital demand and competition with banks and pension funds. It extends these findings to other long-term institutional investors and other OECD countries in the historical long run.

**JEL-Codes:** G 22, N 20

**Keywords:** insurance, economic history, mortgages, housing, Versicherung, Wirtschaftsgeschichte, Hypotheken, Wohnungsmärkte

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# 1 Introduction

The last decades have witnessed an explosion of mortgage indebtedness to historically unprecedented levels.<sup>1</sup> Banking assets and liabilities have largely outgrown economic development and bank investments were increasingly steered into long-term mortgage loans instead of the more traditional short-term business loans. Within banking systems, it was mainly commercial banks and other non-traditional lenders (e.g. mortgage companies) whose market entry into retail banking shook up the closely regulated mortgage circuits of building societies and mortgage banks and led to higher overall volumes of lending volumes. In the shadow of this banking-centred view, the second big financial intermediary and pillar of countries' financial systems has been largely neglected, namely insurance companies, despite the fact that their long-term capital supply naturally best maturity-matches the long-term character of mortgage lending.

This paper complements the existing bank-centred literature in finance and economic history by presenting the first long-run view of the importance of life and non-life insurance from 1850 to the current day. It zeroes in on Germany and the United States in historical detail as they represent opposed business finance (bank-centred vs. stock-market-centred) and mortgage finance systems (deposit-based vs. covered-bond-based), but confirms overall trends for other countries as well. The new data show that while total insurance assets have historically been the smallest part of countries' financial systems, they have gradually grown to about 50 percent of GDP – in other words, to the levels of the German stock markets or US bank deposits in the 2000s (cf. Fig. 1), with life insurances being the dominant asset holder vis-à-vis non-life companies and therefore the sole focus here.<sup>2</sup> Due to the long-term nature of the life insurance contract, insurers' investments have moreover been crucial for mortgage and housing finance: they can be invested long-term, can count on a predictable premium inflow and are regulated to invest in low-risk assets.

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<sup>1</sup> *Ó. Jordà/M. Schularick/A.M. Taylor*, The Great Mortgaging: Housing Finance, Crises and Business Cycles, in: *Economic Policy* 31/85, 2016, pp. 107-152.

<sup>2</sup> The investment policies of non-life insurers are moreover of a different nature, as the unregular nature of their outflows requires more liquidity holdings and short-term investments.

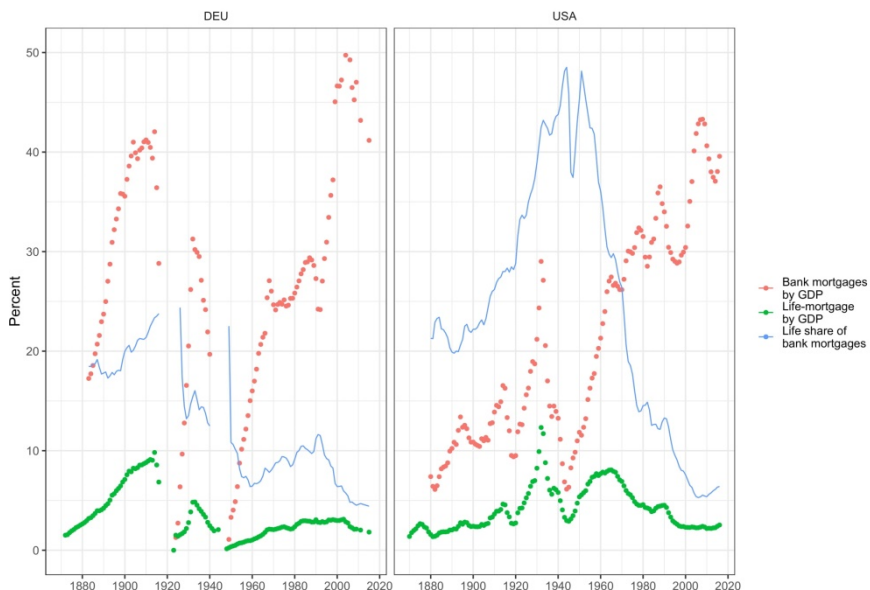


**Fig. 1:** Growth of Insurance Assets in Comparison to Banks and Stock Markets. *Factbook*, Life Insurance Fact Book, Washington 1948-2019; Census, United States. Bureau of the Census. 1975. *Historical Statistics of the United States, Colonial Times to 1970*: US Department of Commerce, Bureau of the Census; *GdV*, Gesamtverband der Deutschen Versicherungswirtschaft. *Statistisches Taschenbuch der Versicherungswirtschaft*, Karlsruhe 1980-2019; *P. Borscheid/A. Drees*, *Versicherungsstatistik Deutschlands, 1750-1985*. *Quellen und Forschungen zur Historischen Statistik von Deutschland*, St. Katharinen 1988; *Ø. Jordå/M. Schularick/A.M. Taylor*, *Macrofinancial History and the New Business Cycle Facts*, in: *NBER Macroeconomics Annual 2016*, vol. 31, Chicago 2017; *D. Kuvshinov/K. Zimmermann*, *The Big Bang: Stock Market Capitalization in the Long Run* (Macrohistory Working Paper, 2019); *K. Zimmermann*, *Monetary Policy and Bank Profitability, 1870-2015* (Macrohistory Working Paper, 2019).

Life insurers therefore could account for 20-50 percent of banks' mortgage holdings or an equivalent of up to 10 percent of GDP prior to the Second World War (cf. Fig. 2). Until this point, mortgages still constituted the dominant asset class in insurers' portfolios, amounting to over 90 percent in Germany prior to the First World War. Yet, after two temporary postwar reconstruction rebounds in mortgage lending, insurers gradually de-mortgaged their portfolios to below 5-10 percent, just about the time when banks' great mortgaging took off. This was only partly compensated for by insurers' shift to secondary-mortgage products, but mainly reflects the growing competition from banks themselves, the declining rental yields and increasing equity returns as well as insurers striving for

portfolio diversification and higher returns in competition with pension funds. All this gradually pushed insurers into securities markets.

This paper augments three existing bank-centred perspectives with fresh insights from the insurance point of view in the financial system. First, it nuances the received view in macrohistorical work about the “great mortgaging” by limiting it to a banking story. In fact, part of the great banking mortgaging was made possible by insurers leaving their traditional investment playing field to banks.



**Fig. 2:** Comparing Mortgage-Lending per GDP by Banks and Life Insurers. *Factbook*, Life Insurance; *GdV*, Versicherungswirtschaft; *Borscheid/Drees*, Versicherungsstatistik; *Jordà/Schularick/Taylor*, Macrofinancial History.

Life insurers had on average a market share of 17 and 23 percent in pre-1950 Germany and the US, respectively, which could go up to 20 and 32 percent in peak years. Had life insurers counterfactually maintained their historical peak market shares after 1950, the post-1950 great mortgaging by banks would have been a median of 15 percent lower in Germany and as much as 30 percent lower in the US. These counterfactual numbers would even be higher for later periods and if non-life insurance was included. A non-negligible part of the great mort-

gaging is hence due to a substitution of assets among institutional mortgage lenders and explicable in terms of life insurers' great de-mortgaging. This shift has arguably contributed to the increasing financial instability originating in mortgage markets, as insurers with their maturity and illiquidity advantages versus banks and without credit creation of their own had been a stable mortgage institution with fewer insurance crises or runs on insurance when compared to banks.

A second rather bank-centred literature is the Varieties of Capitalism approach which starts from the opposition of a bank-centred Germany to the capital-market-centred United States with regard to business finance. The strong, albeit narrow, focus on these two financial institutions can already be found in Hilferding's classical work on financial capitalism and has become further entrenched in Gerschenkron's analysis of late development, Zysman's distinction of market- vs. bank-financed capitalism in the 1980s, and the Varieties of Capitalism approach.<sup>3</sup> One major exception to this not uncontested bank-centred view is the distinction of Rhenish from Anglo-capitalism, which Michel Albert, himself with insurance background, correlated with the risk-averse "Alpine" and the risk-taking "maritime" insurance culture, respectively.<sup>4</sup> This paper builds on this latter distinction by showing how American insurers were for corporate finance what the less risk-taking German insurers were for mortgage finance prior to the Second World War. It also shows that the US corporate sector could rely on large amounts of patient capital from the insurance sector and that Germany is also a country with private pension reserves stored in life insurances. This finding challenges some received views about American firms being "impatiently financed" or Germany not being affected by pension fund capitalism.

The third contribution is to the literature on finance and housing, where bank-centred approaches have again prevailed.<sup>5</sup> This paper shows how crucial life insurers have been in the finance of (residential) real estate – amounting to

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<sup>3</sup> A. Gerschenkron, *Economic Backwardness in Historical Perspective. A Book of Essays*, Cambridge 1966; J. Zysman, *Governments, Markets, and Growth. Financial Systems and the Politics of Industrial Change*, Oxford 1983; R. Hilferding, *Finance Capital. A Study of the Latest Phase of Capitalist Development*, London 1985; P. Hall/D. Soskice, Introduction, in: *Varieties of Capitalism*, Oxford 2001, pp. 1-45.

<sup>4</sup> M. Albert, *Capitalism Against Capitalism*, London 1993, Chapter 5; D. Verdier, *Moving Money. Banking and Finance in the Industrialized World*, Cambridge 2002.

<sup>5</sup> M. Boléat, *National Housing Finance Systems. A Comparative Study*, London 1985; T. Blackwell/S. Kohl, *The Origins of National Housing Finance Systems. A Comparative Investigation into Historical Variations in Mortgage Finance Regimes*, in: *Review of International Political Economy* 25/1, 2018, pp. 49-74.

20 percent and more of the mortgage market, where portfolios largely reflected the two countries' building cycles, housing types and urbanization history. The paper also reveals that the simple availability of long-maturity capital supply does not automatically lead to high mortgage-debt levels, as both public and private insurances had various options among long-term asset classes and gradually divested from housing.<sup>6</sup> Moreover, German insurers switched almost completely from rental buildings to single-family house mortgages, whereas American insurers since the 1970s had almost completely replaced residential with commercial real estate lending. The paper does, however, find a certain early complementarity between the type of insurance capital and the type of housing, as more social insurance invested in public housing in Germany, whereas private life insurances in the US only invested in private real estate.

Overall, the paper suggests that insurers were rather driven by circumstances of capital demand and competition with other suppliers than driving capital markets themselves. Investment came only after their primary business, which moreover restricted insurers to the confines of low-risk asset classes. Their investments were often mediated through banks and as risk-spreading universal owners they took little interests as active investors.<sup>7</sup> This has also generally left them below the radar of many a financial critic, which is otherwise surprising given their size.<sup>8</sup> As a result of their demand-drivenness, the specific capital needs of each period are written into the history of insurers' balance sheets in the long run, starting with building cycles, state war demand, post-war industry and urban (re-)construction and ending with growing state indebtedness. Over time, insurers' portfolios became increasingly dependent on financial markets, or "financialized", which made them less important for the financialization of housing.

In economic history, let alone in historical-comparative perspective, insurances – when compared to banks or welfare states – are definitely not an over-researched phenomenon. "The modern insurance industry is a global multi-trillion dollar business. Surprisingly, however, comparative international insurance history remains in its infancy."<sup>9</sup> Yet, most countries have a handful of

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<sup>6</sup> H.M. Schwartz, Is There a Really Big Trade-Off? Housing, Welfare and Pensions Reconsidered from a Balance Sheet Perspective, 2014, <http://www.people.virginia.edu/~hms2f/trade-off.pdf>, 23.10.2017.

<sup>7</sup> C. Kopper, Versicherungskonzerne in der 'Deutschland AG'. in: H.G. Hockerts/G. Schulz (Eds.), Der "Rheinische Kapitalismus" in der Ära Adenauer, Paderborn 2016, pp. 169-185, here: p. 169.

<sup>8</sup> M. Keller, The Life Insurance Enterprise, 1885-1910. A Study in the Limits of Corporate Power, Harvard 2013, p. ix.

<sup>9</sup> R. Pearson/M. Lönnborg, Regulatory Regimes and Multinational Insurers before 1914, in: Business History Review 82/1, 2008, pp. 59-86, here: p. 59.

dedicated insurance historians whose work has also been brought together in a collected volume.<sup>10</sup> Drawing on these rich studies of individual countries and on new data collections of historical time series, this paper also makes a contribution to the historical-comparative study of private insurances. The data are mostly taken from national insurance supervision authorities or collections of the insurance industry. The former in particular come with the advantage of standardizing previously heterogeneous accounting traditions and providing complete overviews of the market. However, their annual reports have the drawback of providing only information and breakdowns of asset classes of interest in the respective regulatory framework, which can moreover change over time.

The paper is organized as follows. The next section will present the new long-run data by highlighting the *common trends* in life insurance development and their role in housing finance. The following section, in turn, discusses the *country differences*, while the last section extends the broad findings to more country cases.

## 2 Commonalities: Great De-Mortgaging, Shift to Secondary Bonds, Residual Real Estate

Modern incorporated premium-based insurances emerged in Great Britain in the 17<sup>th</sup> and 18<sup>th</sup> centuries. Large amounts of capital were required for their set-up as joint-stock companies and their permanent premium collection made them a centre of capital accumulation. Life insurances can traditionally serve two purposes: insuring against the premature death of the policyholder to benefit (historically) widows and children but also creditors, and insuring long life to benefit the policyholder in old age, where the first function was historically predominant until the 20<sup>th</sup> century. In both cases, the policyholder pays regular premiums to the insurer and receives the agreed upon sums insured as a lump sum or rents *in causa mortis* or when reaching a specific age. Life insurers receive relatively predictable inflows and the demographics of human mortality and life expectancy determine their outflows, which were also more and more predictable thanks to the evolution of mortality tables and probability calculus.

Over long stretches of human life, insurers thus became a store of illiquid capital with long maturities. These features set them apart from marine risk

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<sup>10</sup> P. Borscheid, Introduction, in: *Idem/N.V. Haueter (Eds.), World Insurance. The Evolution of a Global Risk Network*, Oxford 2012, pp. 1-33.

underwriting exchanges such as Lloyd's or most friendly societies, which relied on members' mutual obligation to cover extra expenses and often lacked strong capital reserves. The low liquidity and long-term nature of their assets also sets them apart from the non-life insurers, dominant until the 20<sup>th</sup> century, which held more liquid short-term assets to cover unpredictable catastrophes. Orphan and widow funds, in turn, can already be considered a precursor of life insurances in that they actively invested their funds in loans and bonds, mortgages, policy loans and even speculative plantation loans.<sup>11</sup> If funded by municipalities, state rulers or the clergy, however, funds were often earmarked for purposes favouring the fund's patrons. The early charters of ante-bellum US life insurers also customarily contained many social clauses and life insurance assets had traditionally been close to fiduciary duties requiring particular care and hence lower-risk investments. During the 18<sup>th</sup> century, British life insurance companies still experimented with the different long-term investment options available and were not yet necessarily at odds with speculative capital gains at a time when modern securities markets were only starting to emerge.<sup>12</sup> In fact, insurance companies were among the earliest stock companies themselves, following up on the (East Indian) trading companies, and were co-evolving with government bond markets following the Glorious Revolution.<sup>13</sup>

## 2.1 Mortgage Investments: Rise and Fall

During this early period of trial and error among insurance companies in North-Western Europe more generally, investment in housing – through mortgages, ground rents, real estate or speculative building – became one of a range of investment options; where some companies in Britain did not use them at all, others invested quite heavily in mortgages on freehold property when government securities became less attractive.<sup>14</sup> With rising demand for state debt before and during wars (or epidemics), higher interest rates lured investments into government bonds, while in peace time, speculative building and house price

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<sup>11</sup> *J.C. Riley*, *That Your Widows May be Rich. Providing for Widowhood in Old Regime Europe*, in: *Economisch en sociaal historisch jaarboek* 45, 1982, pp. 58-76; *G. Clark*, *Betting on Lives. The Culture of Life Insurance in England, 1695-1775*, New York 1999.

<sup>12</sup> *R.C. Michie*, *The Global Securities Market. A History*, Oxford 2006, Chapter 2.

<sup>13</sup> *G. Clark*, *Betting on Lives. The Culture of Life Insurance in England, 1695-1775*, New York 1999.

<sup>14</sup> *A.H. John*, *Insurance Investment and the London Money Market of the 18th Century*, in: *Economica* 20/78, 1953, pp. 137-158.



booms attracted investments to the housing sector.<sup>15</sup> Both offered long maturities: government bonds had the advantage of being more liquid; mortgages the advantage of having higher returns, thanks to an illiquidity premium.<sup>16</sup> In Britain the overall trend of mortgage investments in the 18<sup>th</sup> century, however, was one of decline, as securities markets continued to grow and the danger of excess deaths through epidemics, prescribing higher liquidity, decreased. Yet, mortgages in 19<sup>th</sup> century Britain were still considered the classical investment for insurers, including for the predominant fire insurers for whom buildings naturally belonged to their primary business.<sup>17</sup>

When the shift from premium-income to investment-income competition among insurers in the later 19<sup>th</sup> century stimulated actuarial discourse on investment principles, life insurers' mortgage preference was also reflected in the highly influential publication of Bailey for the Institute of Actuaries in 1862, which prioritized the security of the principal over high real returns.<sup>18</sup> "In his view, mortgages were undoubtedly the ideal assets, since not only was the capital free from fluctuations in market value, but the borrower's own stake would also absorb the first shock of any unusual change in financial conditions",<sup>19</sup> a view which did not start to shift towards more return-focused and inflation-insensitive equity investments until the British interwar years.<sup>20</sup> The United States broadly followed this general pattern of the then leading British industry, though with a time lag of several decades, while Germany followed suit even later due to its late development of securities markets.<sup>21</sup> A common long-run trend is thus the overall decline in insurers' mortgage holdings from very high levels, structured by building and government debt cycles.

Before the later 19<sup>th</sup> century, when either insurance supervision authorities or insurance business associations arose and reported on industrywide statistics including assets and their breakdown, statements on insurers' investments

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**15** John, *Investment*, p. 155; M. Korevaar, *The First Housing Bubble? House Prices and Turnover in Amsterdam, 1582-1810*, 2018, <https://www.semanticscholar.org/paper/The-First-Housing-Bubble-House-Prices-and-Turnover-Korevaar/9c790a4c99e9ed16c7f6d9c7408c6f417b98478f>, 12.01.2020.

**16** C. Turnbull, *A History of British Actuarial Thought*, Cham 2016, p. 96.

**17** B. Supple, *The Royal Exchange Assurance. A History of British Insurance 1720-1970*, Cambridge 1970, pp. 310-314.

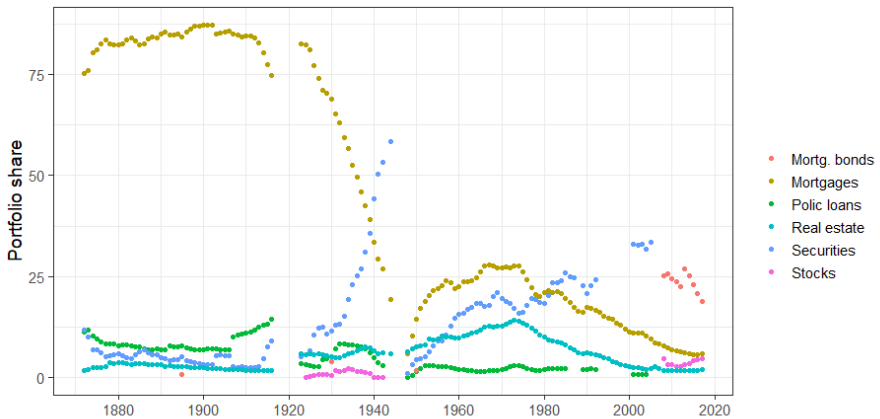
**18** Turnbull, *Actuarial Thought*, p. 96.

**19** G. Clayton/W.T. Osborn, *Insurance Company Investment. Principles and Policy*, London 1965, p. 62.

**20** P. Scott, *Towards the 'Cult of the Equity'? Insurance Companies and the Interwar Capital Market*, in: *The Economic History Review* 55/1, 2002, pp. 78-104.

**21** Gerschenkron, *Economic Backwardness*.

have to rely on (sets of) company reports. In Germany, the pre-1850 reports of the earliest companies like the Gothaer from 1827 show that between 60 to 90 percent of investments were in mortgages, which was possible where land registries were well established and which were often driven by agrarian cycles. This was at a time, when securities markets were underdeveloped and industrial credits deemed insecure.<sup>22</sup> With the formation of the German state and the widespread land registries, mortgages developed into the secure default option of insurers' portfolios, with a shift from agrarian to urban mortgage credit.<sup>23</sup> Portfolio shares could reach more than 90 percent, even if financial securities gradually became the second best investment option with a dominance of state and municipal bonds, less so of industrial bonds or the German covered bonds issued by mortgage banks (cf. Fig. 3).<sup>24</sup>



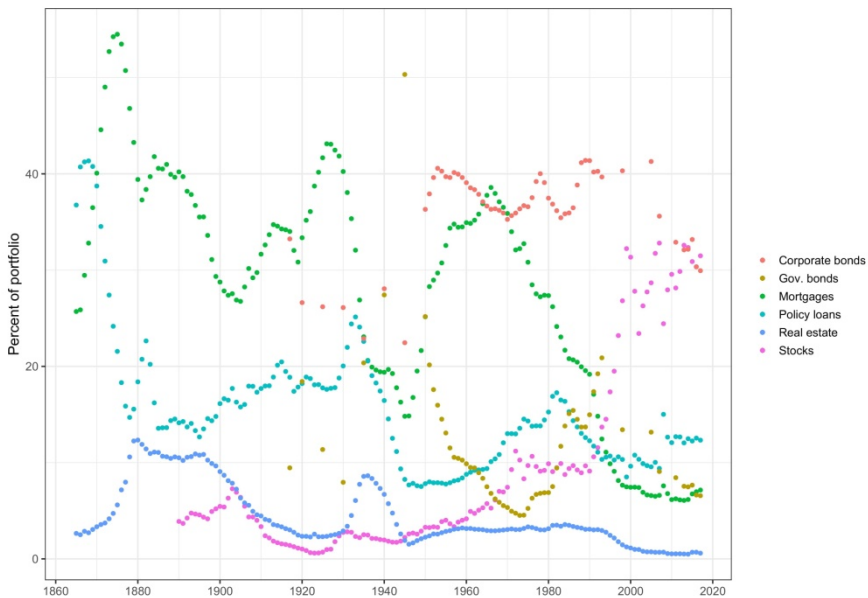
**Fig. 3:** Investment Shares of the German Life Insurances. Cf. sources from Fig. 2.

<sup>22</sup> M. von Bargaen, *Vermögensanlage in der deutschen Lebensversicherung*, Frankfurt a.M. 1960, pp. 28-35.

<sup>23</sup> von Bargaen, *Vermögensanlage*, pp. 28-35

<sup>24</sup> This should be read as the upper end of an estimate, as the German “Hypothecken” was used to cover secured assets in a broader sense. While common supervision standardized balance sheet items reported, it came at the cost of underreporting more fine-grained categories. As capital can flow into housing through multiple channels (municipal loans, REITs, etc.) and real estate itself can be of different types (commercial, government, residential, business, etc.), the descriptions below is at times limited by the coarse-grained variables reported.

In the US, the portfolio of early life insurers in the 1850s-70s was also up to 85 percent dominated by mortgages, if one disregards the initially prominent asset of “premium notes”, a promise of policy holders to delay premium payments plus interest. This served as a technique used by the industry to be more attractive to new clients and faded out with the switch to more endowment policies in the later 19<sup>th</sup> century.<sup>25</sup> Loans secured on policies themselves later became a standard asset in insurers’ portfolios in both countries, which correlated with the business cycle and barely reached double-digit shares (cf. Fig. 4).



**Fig. 4:** US Life Insurer Investments in Different Asset Classes. *Factbook*, Life Insurance; *E.N. White*, Life Insurance – Company Assets and Earning Rate: 1854-1998, Table Cj741-747, New York 2006.

These commonalities, both in structure and in trends, can also be understood as being driven by the organizational convergence of national insurers towards an internationally converging model of private life insurance organization. Once this “basic innovation” was triggered in the 19<sup>th</sup> century and diffused through international actuarial circles, the foreign affiliates of the exporting British life

<sup>25</sup> *L.W. Zartman*, *The Investments of Life Insurance Companies*, New York 1906, pp. 10-16.

insurance industry, and banking and merchant communities, it became the standard across nations, even though differences in regulation – not least with regard to legally prescribed classes and quantities of assets – have persisted even to the current day.<sup>26</sup>

During the pre-First World War era, insurers had also come under the national supervision of specialized insurance authorities in Germany in 1901 and state-level supervision in the United States, starting with the pathbreaking and dominant New York state insurance department regulation of 1859.<sup>27</sup> Contrary to the British approach, both the US and European countries such as Germany tended to follow a more interventionist approach to insurance regulation, including investment decisions. Regulators defined a list of assets they deemed sufficiently low-risk and set caps for certain risky assets. Most US state regulations set upper bounds for direct real estate holdings and stocks, and prescribed certain holdings in municipal or state bonds.<sup>28</sup> The US saw a tightening of regulation following the Armstrong Commission in 1905, which had investigated fraudulent and corrupt investment behaviour among the top New York life insurers of the time.<sup>29</sup> In Prussia and other German states, state laws also tended to prescribe German-only investments in fiduciary assets (*mündelsicher*), which mainly included government bonds and mortgages – stocks being prohibited – a regulation continued by the federal law of 1901. Stocks were first allowed up to certain limits in Germany between 1923 and 1931 following the hyperinflation experience, then prohibited again until after the Second World War.<sup>30</sup> The (leading) New York insurance department also gradually liberalized stock investments in the 1950s, allowing common stocks again in 1951.<sup>31</sup>

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**26** P. Borscheid, Die Entstehung der deutschen Lebensversicherungswirtschaft im 19. Jahrhundert. Zum Durchsetzungsprozess einer Basisinnovation, in: VSWG 70/3, 1983, pp. 305-330.

**27** S.A. Murphy, Life Insurance in the United States through World War I, in: R. Whaples (Ed.), EH.Net Encyclopedia, 2002, <http://eh.net/encyclopedia/life-insurance-in-the-united-states-through-world-war-i/>, 01.05.2020.

**28** B.M. Pritchett, Financing Growth. A Financial History of American Life Insurance Through 1900, Philadelphia 1985.

**29** D.C. North, The Large Life Insurance Companies Before 1906. A Study of Their Growth, Their Domination of the Industry, and Their Alliances with Investment Banking As Revealed by the Armstrong Investigation of 1905-1906, University of California 1952.

**30** von Barga, Vermögensanlage, p. 111.

**31** Factbook, Life Insurance, 1960, p. 79.

Over the long term, war – whether the American Civil War or the two World Wars – meant rising interest rates on government bonds and a shift by insurers into government securities, whereas the building booms that followed wars reversed this trend again. In both the US and Germany governments encouraged or even obliged life insurers to buy national government bonds before or during the world wars. Before the First World War, government bonds were still a rare item in companies' portfolios, even though governments had always kept an eye on the growing long-term assets of these new institutional investors up to the point where governments obliged (foreign) insurers to hold a certain quota in government bonds, funded (semi-)public insurances themselves or nationalized the private industry.

On the level of the financial system, the commonalities reflect secular trends of expansion and maturation. One such trend is the growth in the quantity and diversity of liquid financial assets, which meant insurers could rely on ever broader types of assets acceptable to the regulators: government, municipal and public utility bonds, corporate debentures and equities, etc. To be clear, it is not that the absolute deflated sums of overall insurance assets and even mortgage investments have declined, quite the contrary. Part of the decline rather becomes visible in relation to its importance in insurers' portfolios (cf. Fig. 3 and Fig. 4), to other financial institutions, most notably banks, and to the overall investments dedicated to certain sectors, because the growth rate of insurers' total assets, of other financial institutions and the demand from destination sectors was on average higher. The two World Wars and then the growing state debt of the 1970s shifted insurers' assets more into government bonds, but even though these sums were growing in absolute terms, they decreased from a maximum of 13.4 percent in 1940 to less than 2 percent of all government bonds in the 1970s, as this latter market had grown much more.<sup>32</sup> Figure 2 above shows that the ratio of bank-to-insurance mortgage lending fell from 20-50 percent to below 5-10 percent today. With the secular decline of interest rates on fixed-income investments, there has been a shift towards riskier investments in general, even if more so in English-speaking countries.<sup>33</sup> Part of this dynamic has been driven by a change in the main product type of insurers away from insuring premature death and towards insuring endowment products where they need to compete with pension funds, the comparative advantage of which has always been twofold: more flexibility in

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<sup>32</sup> *Census-Bureau*, Statistical Abstract of the United States, Washington 1880-2009.

<sup>33</sup> V. Zhang, *Uncalculated Risks*, Toronto 2014.

the disposal of funds than the actuarially rigid insurers and stronger return orientation than permitted by fiduciary insurance laws.<sup>34</sup>

Another reason behind the common trends is the move towards more holdings of liquid bonds, considered the less risky fixed-income assets, whereas stocks were increasingly chosen as the more risky but higher yielding assets.<sup>35</sup> The period of high-inflation and interest-rate volatility in the 1970s was also a push factor out of mortgages and into stocks. Yet another reason was simply the growing competition in mortgage lending. Traditionally, both Germany and the US relied on different types of specialized (residential) mortgage-lending institutions: deposit-collecting buildings societies (Britain) or savings and loans (USA) in the English-speaking world and covered-bond-based mortgage banks in the continental European countries and Germany in particular.<sup>36</sup> These special-circuit institutions channelled almost their complete deposit and bond-sale capital into new mortgage lending. In both German- and English-speaking countries, general savings banks (or *Sparkassen*) were the other general deposit institution making up large parts of the mortgage market. These institutions also had a special focus on the local urban mortgage markets they were situated in and therefore competed with insurers at least in the segment of larger multifamily-house mortgages, but even in the segment of 1-4-unit-family-house mortgages.<sup>37</sup> Starting in the post Second World War era and intensifying in the 1970s, commercial banks increasingly switched to mortgage-lending as an attractive business segment next to their traditional short-term personal and business loan activities.<sup>38</sup> An important background condition enabling this change was the introduction of deposit insurance starting in the interwar years, which reduced the maturity-mismatching disadvantage banks had vis-à-vis the insurers who could rely on much more stable contractual savings.<sup>39</sup> Deposit insurance, but also the creation of standardized,

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34 J. Klein, *For All These Rights. Business, Labor, and the Shaping of America's Public-private Welfare State*, Princeton 2010, p. 60.

35 *Factbook*, Life Insurance, 1999, p. 125.

36 S. Kohl, *The Power of Institutional Legacies: How Nineteenth-century Housing Associations Shaped Twentieth-century Housing Regime Differences between Germany and the United States*, in: *European Journal of Sociology* 25/2, 2015, pp. 271-306.

37 K.A. Snowden, *Debt on Nonfarm Structures, by Type of Debt, Property, and Holder. 1896-1952*, Table Dc903-928 in: S.B. Carter et al. (Eds.), *Historical Statistics of the United States, Earliest Times to the Present*. Millennial Edition, New York 2006.

38 M. Ball, *Under One Roof. Retail Banking and the International Mortgage Finance Revolution*, New York 1990.

39 A. Demirgüç-Kunt et al., *The Global Findex Database 2014. Measuring Financial Inclusion Around the World* (Policy Research Working Paper, World Bank 7255, 2015).

government insurable mortgages in the US and a growing secondary mortgage market, decreased the illiquidity and long-term return premium for insurers. Moreover, regulation protecting special circuits of capital was liberalized in the 1970s and competition in mortgage-lending intensified such that insurers – who had no other particular competitive advantage in the mortgage domain and were often even lacking local knowledge – sought refuge in other asset classes.

The high demand for mortgages during the ups of the building cycle in the respective postwar years obscure this gradual tendency for some time. The housing shortage in Germany, for instance, was so intense that the government toyed with the idea of central capital investment steering in the 1950s despite the devastating legacy of such policies from the Nazi era. To pre-empt any realization of such plans, corporate bodies in finance promised to invest a self-imposed rate of 50 percent of new funds in housing annually between 1950 and 1957.<sup>40</sup> In fact, life insurers considerably exceeded this goal, despite simultaneously financing industrial reconstruction through corporate loans.<sup>41</sup>

## 2.2 Direct Real Estate Investments

Finally, investments in real estate and its direct ownership have never played an important role in insurers' portfolios in both countries. They rarely exceeded 10 percent of all investible assets and were usually below 5 percent, which could still be important for particular urban areas. From very early on, this investment mainly served the businesses themselves and, with the development of the first skyscrapers in the 1880s, life insurers, competing with banks, constructed prominent large buildings in city centres for their headquarters, often derided as "palaces." They were not only meant to store surplus money, but also to represent the solidity and might of the companies' finances.

Historically, there are few exceptions to this rule. One is times of housing and mortgage crises, such as the 1880s or 1930s in the US, when an increased number of properties had to be foreclosed and thus increased companies' real estate holdings involuntarily. Another exception was in periods during which the markets for alternative assets were unattractive or illiquid. During the German hyperinflations, insurers noted that their real-estate holdings were among the few inflation-safe assets. For this very reason, real estate also had a come-

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40 P. Borscheid, *Mit Sicherheit leben: die Geschichte der deutschen Lebensversicherungswirtschaft und der Provinzial-Lebensversicherungsanstalt von Westfalen*, Band 2, Münster 1993, p. 65.

41 Kopper, *Versicherungskonzerne*, p. 172.

back into insurers' (and particularly pension funds') portfolios in the 1970s when inflation became a problem again for long-term investors, less so in Germany or the US. A final exception is the temporary taste for rental housing and non-housing estates that the American insurers had after the Second World War, when certain state laws allowed for this new investment.<sup>42</sup> In specific cities and areas, these real estate investments, though tiny in an insurer's portfolio, could still be of considerable size in a given location.

One main reason for companies' limited interest directly owned real estate is related to the high administrative costs of managing commercial or residential real estate. Companies lacked a proper department with expertise in these matters. Even in the case of mortgage investments, companies had to rely on external knowledge about proper value assessments. Another reason is that over long time periods in the 20<sup>th</sup> century the housing market was under a return-threat from rent control and public housing, which is why the American companies did not even fully utilize the legally possible investment potential.<sup>43</sup> Life insurers as investors are mainly interested in rental yields, not speculative price rises. A final reason why direct real-estate investments in new construction or existing housing stock have decreased since the 1970s is a growing divergence of house prices and rents – “softly” regulated in Europe – on the one hand and a divergence of rents and building and maintenance costs on the other.<sup>44</sup> The fall of rental yields, gross and net, rather made insurers divest from the residential real estate sector, the commercial one being generally too risky.<sup>45</sup> Still, insurers continue to rely on real estate residually, often commercial real estate, for its returns but particularly for reasons of security and portfolio diversification.<sup>46</sup> The introduction of modern portfolio management theories, diversification of risk, allowing riskier investments if properly managed, also contributed to this trend.<sup>47</sup> The inflation of the 1970s, however, was a last boost to real

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<sup>42</sup> *Factbook*, Life Insurance 1948, p. 65.

<sup>43</sup> Clayton/Osborn, Insurance, p. 194.

<sup>44</sup> G. Lehnhardt-Ritter, Das Kapitalanlageverhalten der deutschen Lebensversicherungsunternehmen im Wandel der Konjunktur. Eine spektralanalytische und ökonometrische Untersuchung, Karlsruhe 1984.

<sup>45</sup> Lehnhardt-Ritter, Kapitalanlageverhalten, p. 124.

<sup>46</sup> V. Walbröhl, Die Immobilienanlageentscheidung institutioneller Investoren am Beispiel deutscher Lebensversicherungsunternehmen und Pensionskassen, in: H. Leser/M. Rudolf (Eds.), Handbuch Institutionelles Asset Management, Wiesbaden 2003, pp. 607-639.

<sup>47</sup> J. van Loon/M.B. Aalbers, How Real Estate Became 'just another asset class'. The Financialization of the Investment Strategies of Dutch Institutional Investors, in: European Planning Studies 25/2, 2017, pp. 221-240, here: p. 221.



estate investment for insurers in inflation-countries. With the deregulation of investment restrictions and a more return-focused approach, however, insurers have gradually moved away from real estate, further pushed by the stock market surge since the 1980s.<sup>48</sup>

While mortgage holdings declined and real estate remained a residual outside times of inflation, a final common trend is insurers' shift from primary to secondary mortgage market investments, which came at the advantage of being more liquid. The German covered-bonds had been an investment alternative for insurers from their very start, whereas American insurers had to wait for the New Deal reforms that established a functioning market for the secondary market for mortgage backed securities. Still, it was not until the later 20<sup>th</sup> century that these products began to play a more significant role in insurers' portfolios. When interest rates on mortgages fell and intensified competition with banks, insurers tended to move into the secondary market.<sup>49</sup> It also reduced the need for larger mortgage departments within insurance organizations. Long-term mortgages with fixed interest also began to cause problems in the interest-rate volatile environment of the 1970s.<sup>50</sup> At their peak, mortgage *bonds* could amount to about 20 percent of German insurers' portfolios and 15 percent of American portfolios (cf. Fig. 3 and Fig. 8), even if up to 40 percent of American bonds are also on commercial real estate and German bonds include municipal and ship bonds. The financial crisis of 2008, low interest rates and competition from international investors have also reduced investments in secondary mortgage products over the recent decade.

### 2.3 Similar Trends Among Other Institutional Long-Term Investors

Over this long period of time, life insurers were not the only non-bank institutional long-term capital holder investing in housing markets. They constituted what later would be known as (part of) the third pillar of the pension system, even if they chronologically anteceded the first two pillars, i.e. the governmental and occupational pension systems. Bismarck's revolutionary social insur-

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<sup>48</sup> S. Barth, *Immobilien als Anlageform für deutsche Lebensversicherungsunternehmen*, München 2013.

<sup>49</sup> Lehnhardt-Ritter, *Kapitalanlageverhalten*, p. 108.

<sup>50</sup> E.P. Davis, *Financial Market Activity of Life Insurance Companies and Pension Funds* (BIS Working Papers, 1988), p. 42.

ance for invalidity, set up in 1889 as first pillar of the pension system, was designed as a capital-funded scheme with pay-as-you-go elements, the capital of which was to be invested in favour of workers, e.g. in cooperative housing or the employee pension fund of 1911.<sup>51</sup> Before 1914, workers' pension assets amounted to nearly 3 billion Reichsmark (RM), about half of total life insurance assets, and the rising non-profit movement of housing associations tackling the urban housing question in growing cities became a convenient mortgage recipient of up to a quarter of these funds, with another 5 percent held as direct real estate.<sup>52</sup> The pension fund of white-collar employees even led to the establishment of one of the largest non-profit housing associations.<sup>53</sup> Taken together, these non-profits contributed on average an estimated annual 7 percent to new construction in major cities between 1895 and 1913.<sup>54</sup> After having lost most assets in the hyperinflation, during the interwar years the pension funds of workers and employees grew again to about 5 billion RM each – together approximatively matching the total assets of life insurers – invested at 41 and 46 percent in housing in peak years, respectively (cf. Fig. 5).<sup>55</sup> Yet, similar to the trends for life insurers, the trend for mortgage investment was a declining one, the second hyperinflation eroded their asset base once more and the pay-as-you-go pension reform of 1957 and growing pension finance problems in the 1970s reduced the overall importance of public pension capital funds to an insignificant amount, even smaller percentages of which have been invested in mortgages or real estate. With the privatization of housing estates indirectly owned by state pension funds in the 2000s, the complementary relationship between public or below-market-price housing and public pensions in Germany also came to an end.

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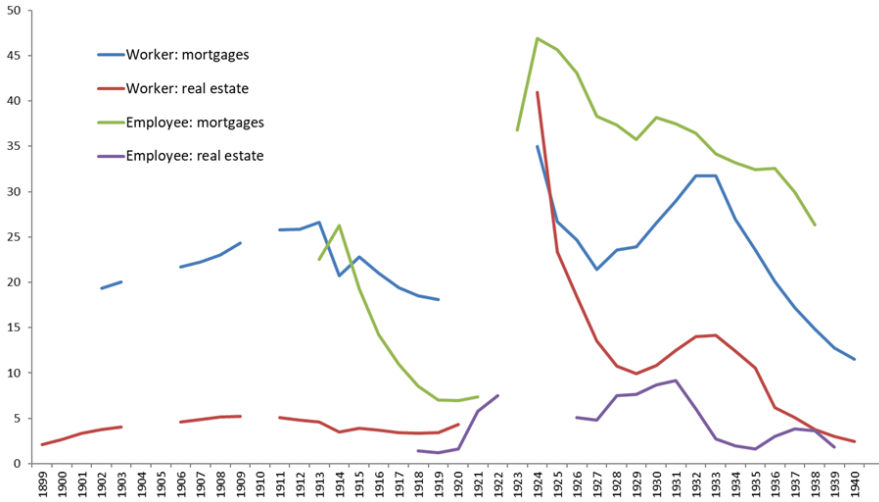
51 P. Manow, Individuelle Zeit, institutionelle Zeit, soziale Zeit, in: *Zeitschrift für Soziologie* 27/3, 1998, pp. 193-211.

52 *Kaiserliches Statistisches Amt*, Statistisches Jahrbuch für das deutsche Reich, Berlin 1881-1918.

53 F. Wilke, Sozialpolitik mit Mehrwert. Das Engagement der Rentenversicherung im Wohnungsbau und die GAGFAH von 1918 bis 2004, in: *Deutsche Rentenversicherung* 4, 2020, pp. 414-436.

54 C. Wischermann, Mythen, Macht und Mängel: Der deutsche Wohnungsmarkt im Urbanisierungsprozeß, in: J. Reulecke (Ed.), *Geschichte des Wohnens*. Band 3: 1800-1918. Das Bürgerliche Zeitalter, Stuttgart 1997, pp. 333-502, here: p. 416.

55 *Kaiserliches Statistisches Amt*, Jahrbuch; *Borscheid/Drees*, *Versicherungsstatistik*.

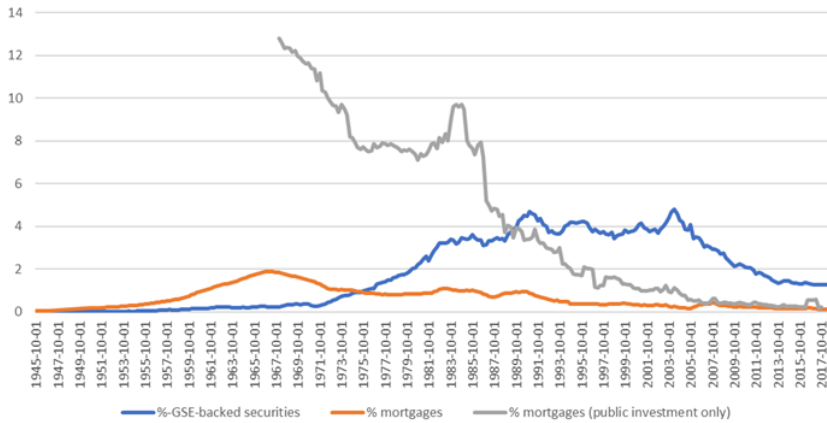


**Fig. 5:** Investment Shares (in percent) of the German Social Security Funds (Workers/Employees). *Statistisches Bundesamt, Statistisches Jahrbuch, Kaiserliches Statistisches Amt, Jahrbuch.*

Such a relationship was never to evolve in the United States, where Social Security was set up about half a century later and where the much disputed Social Security fund was used for general government finance only because Republicans in particular feared the uncontrolled growth of a “socialist” fund. The much more important second pillar of private and public occupational pensions in the US, by contrast, follows a similar trend to life insurers, though at different levels. A large part of the second pillar is in fact already contained in the life insurance aggregates above as life insurers had provided group insurances to employers since the 1920s.<sup>56</sup> They also became managers of pension funds. Still, independent public and private pension funds themselves saw a declining trend of mortgages in their portfolios with the end of the postwar construction boom, which was only partially offset by investments in the secondary-mortgage products that themselves reached a ceiling and declined with the global financial crisis.<sup>57</sup> In comparison with the traditionally dominant equity and bond holdings of these funds, these housing investments appear rather marginal.

<sup>56</sup> Klein, *Business*, p. 16.

<sup>57</sup> M.J. Clowes, *The Money Flood. How Pension Funds Revolutionized Investing*, New York 2000, p. 100.



**Fig. 6:** Trends in Mortgage and GSE-Securities Investment Shares of Private and Public US Pension Funds (in percent). *Federal Reserve Economic Data, Flow of Funds*, <https://fred.stlouisfed.org/categories/32251>, 01.03.2020.

These trends are roughly comparable, in turn, to the much smaller second pillar in Germany, which also had to struggle through two hyperinflations. The again much smaller share of group insurances is already reported in the above global insurance results, but the portfolios of pension funds that were under the supervision of the regulatory agency for insurances display broadly similar patterns: mortgages and real estate had never been as important in insurers' portfolios, but follow the same trend over time, a rise during the reconstruction boom and a decline since its end in favour of industrial loans, bonds and equity.

In sum, insurers – and long-term capital providers more generally – across both countries followed broadly similar trends in their housing investments. They started from the orthodoxy of high levels of secure mortgage investments, less so of direct real estate, in the 18-19<sup>th</sup> centuries, with wartime and building activity as cyclical determinants. The overall investment trends, however, were a long retreat from direct mortgage investments, partially compensated by the entry into mortgage bonds of the secondary mortgage market. This was driven by the increasing competition with banks in the primary mortgage market, the growth of alternatives in financial systems and the need to invest in more liquid, higher-return yet also more risky assets in light of the secular trend of decreasing interest rates as well as the rising inflation in the 1970s. With life insurers changing their role from insuring premature death to insuring old age, the growing competition with other pension providers forced them to assimilate to the traditional higher-return, higher-flexibility profile of other pension provid-

ers. The history of capital needs and their institutional competitors is thus often written into the portfolio composition of insurers in its development over time.

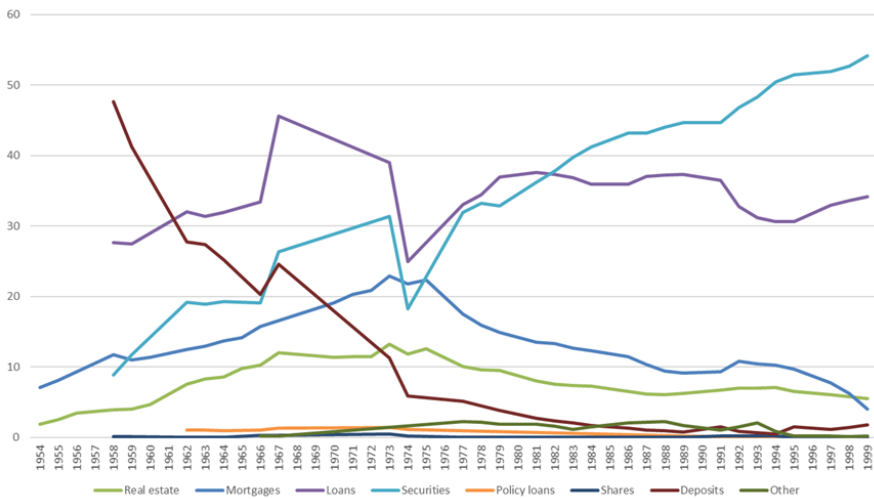


Fig. 7: Investment Shares of German Pension and Funeral Funds (in percent). *Statistisches Bundesamt, Jahrbuch, 1954–1998.*

### 3 Differences: Mortgages Versus Corporate Bonds and Different Building Types

Beyond these commonalities that are driven by a common industry profile, general trends of the financial system, and the housing sector, there are also some key country differences, since life insurers – in contrast to their non-life peers – have been relatively speaking national financial institutions and hence embedded into specifically national capital needs.<sup>58</sup> In Germany and the US, foreign life insurers were not predominant in domestic markets (the early years of the industry excepted) – domestic firms always had a predominantly national base and investments were undertaken nationally.<sup>59</sup> This national orientation

<sup>58</sup> R. Goldsmith, *Financial Structure and Development*, New Haven 1969; R. Pearson/M. Lönnborg, *Regulatory Regimes and Multinational Insurers before 1914*, in: *Business History Review* 82/1, 2008, pp. 59–86.

<sup>59</sup> P. Borscheid, *Vertrauensgewinn und Vertrauensverlust: Das Auslandsgeschäft der deutschen Versicherungswirtschaft 1870–1945*, in: *VSWG* 88/3, 2001, pp. 311–345.

was reinforced by the breakdown of international relations starting with protectionism even before the First World War and stretching through the post Second World War years of international capital regulations, even though the industry started to re-internationalize again from the 1970s onwards. The historical national and even regional specificity is much more true of housing finance and housing markets, where – with the exception of secondary mortgage markets – the local nature of housing has created nationally specific institutions.<sup>60</sup> Whereas the previous section highlighted the commonalities in trends, this section will highlight three national differences: level differences of mortgage and hence of alternative investments as well as differences in mortgage portfolios.

### 3.1 Firm Versus Country Differences

Preliminarily, however, it makes sense to ask whether differences between the US and Germany are differences between the countries at all or whether they can simply be reduced to differences of firms. After all it was US life insurers that had emerged as the world's leading and largest firms by the First World War, even if not necessarily founded earlier than their European counterparts. It had taken some time for life insurance to culturally emerge and diffuse in the US, but, when it did, it overtook the UK as insurance leader.<sup>61</sup> Particularly, the generation of mutuals emerging in the ante-bellum period – the Mutual of New York and New York Life – became the largest asset-holding companies worldwide by the First World War. Yet, despite these company-level differences in age, size and legal types, there were irreducible differences at a country level.

To see this, one can take a look at the supervised individual life companies of different sizes, legal types and foundation years in the two countries as of 1909, i.e. after the US Armstrong Commission and before two wars and hyperinflation shook the German industry. In an OLS regression with country fixed-effects of life insurers' real estate and mortgage investment shares (cf. Table 1), it becomes clear that independently of the countries, larger companies had on average higher shares of both investment classes, whereas the company age and the distinction between mutual and stock companies hardly plays a role. What becomes apparent is that, controlled for company-level differences, the US companies had significantly less investment shares in mortgages (though

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<sup>60</sup> M. Boléat, *National Housing Finance Systems. A Comparative Study*, London 1985.

<sup>61</sup> V.A. Zelizer, *Morals and Markets. The Development of Life Insurance in the United States*, New York 1979.

hardly in real estate), begging the question of what caused the differences in levels across countries.

**Tab. 1:** Firm-level Regression of Real-Estate and Mortgage Asset Shares in the US and Germany, 1909.

	Log percent real estate holdings			Log percent mortgages		
	(1)	(2)	(3)	(4)	(5)	(6)
Foundation year	-0.003 (0.004)	-0.003 (0.004)	-0.002 (0.005)	0.008 (0.004)	0.013** (0.004)	-0.001 (0.005)
Log assets total	0.152** (0.046)	0.152** (0.046)	0.155*** (0.046)	0.187*** (0.047)	0.177*** (0.045)	0.110* (0.048)
USA (ref. DEU)		-0.007 (0.193)			-0.811*** (0.198)	
Mutual (ref. Stock company)			0.078 (0.163)			-0.310 (0.171)
Occupational						-3.293*** (0.803)
Constant	4.452 (8.594)	4.403 (8.723)	2.821 (9.254)	-14.744 (8.766)	-23.117** (8.721)	3.845 (9.709)
Observations	229	229	229	231	231	231
R <sup>2</sup>	0.149	0.149	0.150	0.078	0.141	0.147
Adjusted R <sup>2</sup>	0.141	0.138	0.139	0.070	0.130	0.132
Residual Std. Error	0.988 (df = 226)	0.990 (df = 225)	0.990 (df = 225)	1.075 (df = 228)	1.039 (df = 227)	1.038 (df = 226)
F Statistic	19.780*** (df = 2; 226)	13.129*** (df = 3; 225)	13.219*** (df = 3; 225)	9.619** (df = 2; 228)	12.443*** (df = 3; 227)	9.707*** (df = 4; 226)
Note:	*p<0.05; **p<0.01; ***p<0.001					

Source: *RfP*, Versicherungs-Statistik über die unter Reichsaufsicht stehenden Unternehmungen, Berlin 1909; *Spectator*, The Insurance Year Book, New York 1911.

### 3.2 Differences in Mortgage Lending

The German insurers not only invested almost exclusively in mortgages before the First World War, but it also took them until after the Second World War to move away from this “mono-cultural” asset class. We saw above that insurers had started out with mortgages as a crucial asset class throughout countries in the early years of the industry. Yet, even around 1904, the German insurers still held more than 90 percent of assets in mortgages, a high number even when

compared to their foreign competitors in the German market which held only 33 percent.<sup>62</sup> Why did German insurers not move into other asset classes when they and the financial system matured? More specifically, why did they not invest much more in the readily available German secondary mortgage bonds (*Pfandbriefe*)? These were issued by either agricultural mortgage cooperatives (*Landschaften*) or urban mortgage banks. Making up the biggest market in mortgage bond circulation at the time with bonds that easily competed with government bonds in security, they were long-term investments with good yields and with a big enough market to trade them.<sup>63</sup> Germany developed one of the largest secondary markets for covered mortgage bonds, whereas the US failed five times to develop similar secondary markets before the New Deal.<sup>64</sup>

For one, the *Landschaften* bonds did not have a sufficiently liquid market to be an option. The urban mortgage banks, in turn, were institutionally quite similar to insurers. Both were situated in the big cities, both offered long-term mortgage supplies and both did not have particular expertise when evaluating locally specific real estate values necessary to determine the loan to value ratios of 50 to 60 percent.<sup>65</sup> For this expertise they also had to rely on private assessors. In the view of insurers, mortgage banks were just an additional intermediary that they would have to pay and that created an additional risk. Unlike the older *Landschaften*, the mortgage banks themselves, and not the cooperative members (and individual properties), were liable to their mortgagees.<sup>66</sup> By circumventing mortgage banks and lending to individual landlords directly, insurers would not only receive a return about 0.5 percent higher around 1905, but they would also benefit from the high levels of security the German mortgagee was endowed with.<sup>67</sup>

A supply background condition for these diverging cross-national developments was the immaturity of the German financial system, being a Gerschenkronian latecomer.<sup>68</sup> This meant that in the first half of the 19<sup>th</sup> century the fi-

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<sup>62</sup> H. Hilbert, *Die Kapitalanlagen der Deutschen Privatversicherungsgesellschaften und ihre Bedeutung für den deutschen Geld- und Kapitalmarkt: eine banktechnische Studie*, Jena 1908, p. 45.

<sup>63</sup> F. Sattler, *Der Pfandbrief 1769-2019. Von der preußischen Finanzinnovation zur Covered Bond Benchmark*, Stuttgart 2019.

<sup>64</sup> K.A. Snowden, *Covered Farm Mortgage Bonds in the United States During the Late Nineteenth Century*, in: *The Journal of Economic History* 70/4, 2010, pp. 783-812.

<sup>65</sup> von Barga, *Vermögensanlage*, p. 46.

<sup>66</sup> K. Wandschneider, *Lending to Lemons. Landschafts-Credit in 18<sup>th</sup> Century Prussia* (NBER Working Paper 2013).

<sup>67</sup> Hilbert, *Kapitalanlagen*, p. 50.

<sup>68</sup> Blackwell/Kohl, *Origins*, p. 53.



nancial system was set up completely around agricultural credit that was backed by land as collateral, whereas the dominant form of credit that emerged in Anglo-Saxon countries was personal credit.<sup>69</sup> Even small farmers could have a standing relationship as personal borrowers, whereas the German savings institutions with the broadest coverage across the population only started to provide personal credit beyond the middle class around 1908.<sup>70</sup>

A demand background condition was the need for mortgages due to rapid urbanization, but also due to the (over-)indebtedness of large agricultural estates. In 1912, therefore, Prussian rural landowners set up a public small life insurance, analogous to other public banks, which gradually acquired up to 10 percent of the market share.<sup>71</sup> This very direct and bold attempt to make small life capital finance Juncker indebtedness is perhaps only the most visible sign of at least one function of 19th-century life insurance, i.e. using urban bourgeoisie money to finance aristocrats' indebtedness.<sup>72</sup> In Britain, for instance, insurers were initially also major financiers of aristocratic debt, even if not of major importance in their portfolio. Soon after their emergence, however, public life insurers broadly followed the investment patterns of private ones, including the turn towards urban mortgages.<sup>73</sup> The small life insurers in general invested large shares in public urban housing construction to meet the needs of their clientele.<sup>74</sup>

The specificity of US life insurers in mortgage lending, in turn, was their exclusive focus on the interregional mortgage market.<sup>75</sup> In the absence of stable mortgage bond markets, life insurers were one of the few institutions left to cater for mortgages to more than just local markets through a network of local

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**69** Hilbert, *Kapitalanlagen*, p. 47.

**70** L. Seabrooke, *The Social Sources of Financial Power. Domestic Legitimacy and International Financial Orders*, New York 2006, p. 92.

**71** V. Böge, *Die Politisierung des Volksversicherungswesens. Entstehung und Bekämpfung der „Volksfürsorge“ im Kräftefeld der Wilhelminischen Gesellschaft 1911-1914*, Hamburg 1977, p. 49; P. Borscheid, *Mit Sicherheit leben. Die Geschichte der deutschen Lebensversicherungswirtschaft und der Provinzial-Lebensversicherungsanstalt von Westfalen*, Bd. 1, Münster 1989, p. 116.

**72** R. Pearson, *Thrift or Dissipation? The Business of Life Assurance in the Early Nineteenth Century*, in: *Economic History Review* 43/2, 1990, pp. 236-254.

**73** D. Cannadine, *Aristocratic Indebtedness in the Nineteenth Century. The Case Re-opened*, *The Economic History Review* 30/4, 1977, pp. 624-650.

**74** H. Milzer, *Die Volkslebensversicherung in Grossbritannien, in den Vereinigten Staaten von Amerika und in Deutschland*, Weissenburg 1953, p. 38.

**75** K.A. Snowden, *The Evolution of Interregional Mortgage Lending Channels, 1870-1940. The Life Insurance-Mortgage Company Connection*, in: N.R. Lamoreaux/D.M.G.R. Raff (Eds.), *Coordination and Information. Historical Perspectives on the Organization of Enterprise*, Chicago 1995, pp. 209-256.

loan agents, whereas their main competitors – savings and loans, and mutual savings banks – were restricted to local markets, with the exception of the intermezzo of the so-called “national” saving and loans in the 1890s.<sup>76</sup> Only in the 1930s did insurers start to rely more on a branch system of their own.<sup>77</sup> Insurance companies were also often limited by state laws to only investing in their home states, but this restriction was lifted over time so that life insurers became the dominant player on the US interregional mortgage market.<sup>78</sup> For insurers, mortgages were very profitable and other than the risk of too high evaluations and property price busts, which brought down a few new insurers, they constituted a secure investment as the properties served as collateral.<sup>79</sup>

What type of mortgages insurers invested in was mainly driven by the different housing and urban-rural patterns in the two countries: US agricultural land values did not become depressed before 1930 and the US building stock was much more characterized by single-family houses.<sup>80</sup> As a consequence, insurers continued to invest large parts of their mortgages in farms with geographic concentration in the (middle) Atlantic region until the 1930s and multi-family mortgages tended to remain an exception.<sup>81</sup> Many US states also restricted the amount of single mortgages, which led particularly the many smaller insurers to invest outside of big cities. This did not apply to the mortgages insured through the Federal Housing Administration (FHA) or the veterans’ administration (VA) programmes, which explains the postwar spike of insurers’ investment into these mortgages (cf. Fig. 8).<sup>82</sup> In samples of insurers’ loan portfolios, more than 85 percent of all loans were directed towards single-family homes in the interwar years.<sup>83</sup> But insurers were also pioneers in the financing and even construction of multifamily buildings. However, ever since the 1970s, all segments of residential mortgage lending dried out almost completely, leaving less than 5 percent for single-family home mortgages, whereas insurers’ direct mortgage lending shifted completely into commercial mortgages, ranging from skyscrapers to shopping malls (cf. Fig. 8).

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**76** *D.L. Mason*, *From Buildings and Loans to Bail-outs: A History of the American Savings and Loan Industry, 1831-1995*, Cambridge 2004, p. 32.

**77** *R.J. Saulnier*, *Urban Mortgage Lending by Life Insurance Companies*, New York 1950, p. 32.

**78** *Snowden*, *The Evolution*.

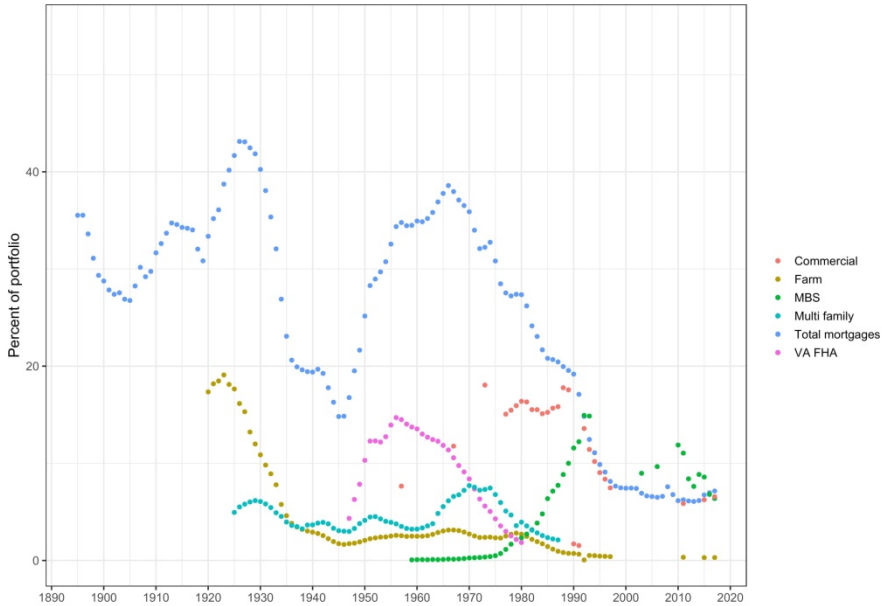
**79** *Zartman*, *Investments*, p. 32.

**80** *S. Kohl*, *Urban History Matters: Explaining the German-American Homeownership Gap*, in: *Housing Studies* 31/6, 2016, pp. 694-713.

**81** *Pritchett*, *Financing Growth*, p. 24.

**82** *Saulnier*, *Urban Mortgage Lending*, p. 22.

**83** *Ibid.*, p. 39.



**Fig. 8:** US Life Insurer Investments in Mortgages of Various Types. *Factbook*, Life Insurance, 1948–2019.

Where American insurance had still invested to a large extent in farm mortgages and (sub-)urban single-family home mortgages, German insurers had already started to move from the pre-1870 rural mortgages or *Landschaften* bonds to urban mortgages during the urbanization spurt up to 1914. The geographic concentration on Berlin, the city of “rental barracks”, was enormous and much criticized among contemporaries, leading to an estimated 20 percent of all Berlin mortgages being in insurers’ portfolios: the standardized rental multi-story building with its rent inflow and easy appraisal in a growing city became insurers’ standard investment.<sup>84</sup> In the interwar years, the mortgage amounts decreased considerably, reflecting a decline of loan-to-value ratios to 40 percent due to rent controls and the emergence of a public finance circuit, about 40 percent of all mortgages in 1929, relegating insurances to smaller properties.<sup>85</sup> As parts of insurers’ investments were also in municipal bonds and loans and these were used for financing

<sup>84</sup> Hilbert, *Kapitalanlagen*, p. 59.

<sup>85</sup> von Bargen, *Vermögensanlage*, p. 122.

municipal land acquisition or housing construction, insurers also financed public housing to a certain extent: in the 1920s, for instance, securities made up about 10 percent of the portfolio of which 15 percent were in municipal bonds, 36 percent of which were in mortgage-bank issued mortgage bonds and municipal bonds.<sup>86</sup> After the Second World War, life insurers gradually became a more marginal institution on the mortgage market and the average mortgage amounts sank even further, which basically made them lenders for single-family homes only.<sup>87</sup> They had also become more entrenched in this homeownership sector, as the German version of building societies – an interwar answer to capital shortages of the middle classes – required mortgage takers to take out a term-life insurance as security for both the building society and the family.<sup>88</sup>

### 3.3 Differences in Investment Alternative: Securities Markets

While American insurers had never been as exclusively concentrated on mortgage finance, they were quite early movers in investing in industry through corporate bonds and even stocks as alternative assets, particularly railroads bonds and stocks, which alone amounted to one third of all assets before the First World War, whereas their German counterparts were legally not allowed to invest in these asset classes. Even when regulation established limited contingents of stock holdings (e.g. in 1924-31 and in gradual liberalizations in the 1974 insurance supervision law, VAG), they usually did not exploit these contingents to the fullest.<sup>89</sup> Unlike their British counterparts, for regulatory reasons American insurers mostly channelled their funds into big industry through corporate bonds and not through stock holdings.<sup>90</sup> It was not that regulators regulated stock holdings particularly strictly in a direct sense – even though the Armstrong Commission had put a cap on these investments – but insurers had to adapt their portfolio valuations to market values. “The result is that any company, which includes in its portfolio substantial amounts of securities subject to fluctuations in market value, faces the danger of becoming technically insolvent

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<sup>86</sup> *Ibid.*, p. 130.

<sup>87</sup> *Ibid.*, p. 161.

<sup>88</sup> R. Kohlhase, *Die Entwicklung des Bausparwesens in der Bundesrepublik Deutschland in der Zeit zwischen 1949 und 1990. Eine institutionenökonomische Analyse*, Köln 2011, p. 37.

<sup>89</sup> *Factbook*, Life Insurance 1950; D.C. North, Life Insurance and Investment Banking at the Time of the Armstrong Investigation of 1905-1906, in: *The Journal of Economic History* 14/3, 1954, pp. 209-228.

<sup>90</sup> Keller, *Life Insurance Enterprise*, p. 142.

although in practice it would have little difficulty in meeting its future obligations.”<sup>91</sup> The British companies were legally in a better position to channel funds into preference and then also common stocks, creating a transatlantic divide in this regard.

When compared to Germany, however, they still shared the fact that considerable quantities of funds flowed into the industrial sector, first in corporate bonds and then, starting in the 1950s, in stocks. Much more pressed by their competition with return-seeking pension funds, American insurers embraced the option of diversifying portfolios through stocks already in the 1950s, whereas it took until the 1980s on the continent.<sup>92</sup> In Germany, the two hyper-inflations and wars as well as the earlier and more generous social insurance for workers and employees prevented a similarly large private-pension industry from rising.<sup>93</sup> Insurers were pressed much later to compete with other financial intermediaries for pension money and only then increased their holdings of riskier assets.

Moreover, in Germany, the conservative book-value focus in balance sheets would not have discouraged insurers from investing in stocks, but it rather was a combination of outright prohibition and a reluctance on the side of industry to change once a certain liberalization set in. Insurers were generally not the most dynamic when it came to investing funds and the lack of adequate personnel to move into a more active portfolio management was organizationally not available at the time. In addition, the securities markets were smaller and with the nationalized railroad in Germany, one of the stock items of American portfolio, i.e. railroad bonds, were not available on the German market. This is not to say that German insurers were not investing in what later became known as the Deutschland AG, even though the rapprochement of insurers with the corporate world was more of a post Second World War phenomenon.<sup>94</sup> As with housing investment, the insurance sector self-compliantly promised to direct certain investment shares into basic industry for reconstruction purposes after WWII.<sup>95</sup> Whereas Germany’s biggest (mainly non-life) insurer Allianz started building up

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<sup>91</sup> *Clayton/Osborn*, Insurance, p. 196.

<sup>92</sup> *S. Sass*, The Promise of Private Pensions, Cambridge 1997; *N. van der Zwan*, Financialisation and the Pension System. Lessons from the United States and the Netherlands, in: *Journal of Modern European History* 15/4, 2017, pp. 554-578.

<sup>93</sup> *S. Hilger*, Sozialpolitik und Organisation. Formen betrieblicher Sozialpolitik in der rheinisch-westfälischen Eisen-und Stahlindustrie seit der Mitte des 19. Jahrhunderts bis 1933, Stuttgart 1996.

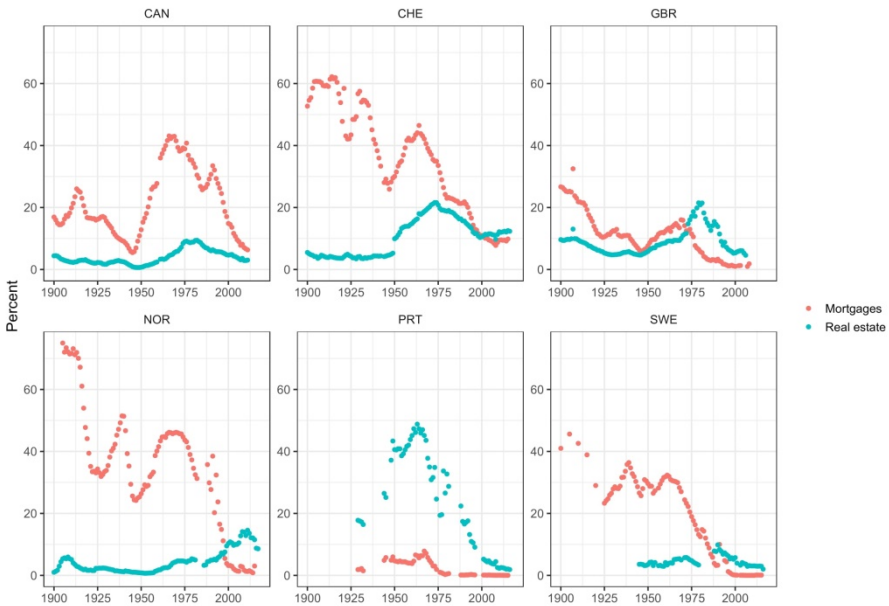
<sup>94</sup> *J. Beyer*, Deutsche Bank, Allianz und das Verflechtungszentrum des deutschen Kapitalismus, *Alle Macht dem Markt: Fallstudien zur Abwicklung der Deutschland AG*, Frankfurt 2003, pp. 118-146, p. 132.

<sup>95</sup> *Kopper*, Versicherungskonzerne, p. 172.

considerable direct shares in other members of the German corporate network, the more widespread form of corporate investments were corporate loans that were backed by real corporate assets.

## 4 Looking Beyond the two Cases

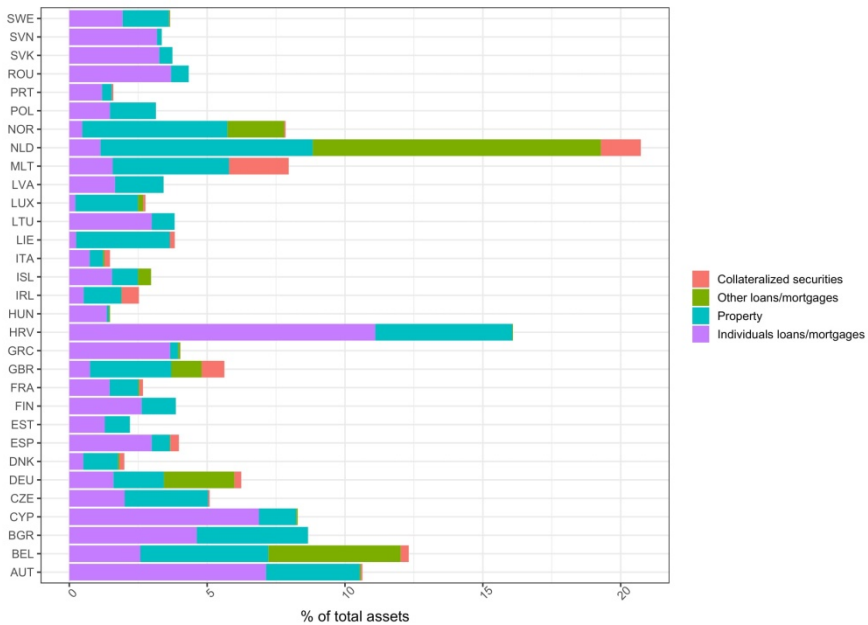
Overall, despite similar trends over time, differences in *level* thus reflect the specific place insurances came to occupy in the nationally specific financial systems. Important background factors are the maturity of securities markets, the regulatory environment and the collaboration of insurers with banks who helped channel insurance money into business finance, either through bonds such as in the US or loan arrangements such as in Germany. The early availability of secondary-mortgage markets alone was surprisingly unimportant in explaining country-specific investment patterns before the Second World War, as primary mortgages



**Fig. 9:** Life Insurance Housing Investments in the Long-Run. Statistical yearbook from national statistical offices, *S. Kohl/A. van der Heide*, *Two Worlds of Insurance Capitalism: The Alpine and Maritime Model in Historical Perspective* (MPIfG Discussion Paper 2022).

played such a central role. This became all the more important in the more recent decades, when insurers became the refiners of primary mortgage lenders, often banks, a role they had once also occupied in US corporate finance.<sup>96</sup>

An international perspective largely confirms the main trends noted above of a decline of life insurers’ mortgage investments, the ups and downs of which broadly follow the war-structured building cycles. Also the trend towards marginal real estate investments, interrupted by the inflation of the 1970s, is broadly shared. The differences in levels again reveal country differences. In Southern European countries, in particular, mortgage investments have historically never been very high, with direct real estate ownership largely taking their place (cf. Fig. 9).<sup>97</sup>



**Fig. 10:** Life Insurance Housing Investments 2019. European Insurance and Occupational Pension Authority, [https://www.eiopa.europa.eu/tools-and-data/insurance-statistics\\_en](https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en), 01.02.2020.

<sup>96</sup> North, Armstrong Investigation, p. 48.

<sup>97</sup> G. Amstad Immobilien als Anlageobjekte unter besonderer Berücksichtigung der Privatversicherung, Winterthur 1969.

Denmark, in turn, was a Northern-European exception because her insurers invested into the widely available covered bonds instead of direct mortgages.

In the context of the Solvency II supervision of insurers' assets, a recent snapshot of 2019 real estate investments reveals that, generally, real estate investments hardly exceed 10 percent of European insurers' portfolios, with Dutch insurers being an exception, as they offer a combination of mortgages and life insurances as a product line.

## 5 Conclusion

By way of conclusion, this paper adds to and partially revises three bank-centred views: first, in macrohistory, it seems that the great mortgaging through banks has been facilitated by insurers leaving the market for primary mortgages, a market share of up to 20-32 percent historically that has almost disappeared. Their very moderate retreat to secondary markets has only added to this facilitating role, as it allowed banks as primary lenders to refinance themselves. Take this share away from the recent growth of banks' mortgage assets and the great mortgaging take-off can in parts be explained by a shift of mortgage investments among institutional investors.

Second, insurance sectors and their assets are nationally quite specific and there are clear complementarities between the Varieties of Capitalism approach and this sector as well: the "Alpine" German insurers have been traditionally less risk-taking than their "maritime" American counterparts, which in turn constituted a source of patient capital that American banks did not offer. The German insurers also became an integral part of the Deutschland AG after the Second World War. Contrary to some received views, US business finance has thus been more patient than the bank-centred literature would have expected, whereas German capitalism also has had its pension capitalism moment.

Finally, the different set-up of pre First World War insurers in the two countries reinforced tendencies of German housing finance's preference for rental housing construction and American housing finance for more decentralized construction for homeowners. Yet, in the course of the 20<sup>th</sup> century, this distinction got lost, as German insurers moved into single-family houses and American ones into business mortgages. It also became clear that, although both public and private insurance followed broadly similar investment paths, the maturity-matching logic alone leaves investment choices underdetermined.

This paper suggests that insurers were rather following broad structural shifts in the demand for capital and the pressures from competing financial



institutions such as banks and pension funds than themselves actively driving these trends. Insurers have thus broadly participated in the “financialization of pensions”, as financial markets and riskier investments came to determine their portfolios.<sup>98</sup> Ironically, this made insurers themselves less of a driver in the financialization of housing and mortgages. A more fine-grained causal analysis would be needed to substantiate the causal relationship and econometric research would have to gather further data on annual or even quarterly investment flows of various institutions instead of cumulative stock numbers presented here. Qualitative research in political economy has moreover provided some more recent and short-term evidence about insurers themselves creating the capital markets and products they need to invest their growing savings glut into.<sup>99</sup> These causal links as well as the implications of insurance investments for financial stability require further research.

Current mature economies face huge infrastructural and housing investment gaps. Perhaps the current *mélange* of problems with these shortages, with classical retail banking, and the return crisis of other long-term assets like government bonds could revise the retreat of insurances from housing and infrastructural investments in the near future. Even though this paper has already taken a long-run approach to insurers’ investment, it could turn out that this was only one round in an even longer economic investment cycle.

## Bionote

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<sup>98</sup> A. Hassel/M. Naczyk/T. Wiß, The Political Economy of Pension Financialisation. Public Policy Responses to the Crisis, in: *Journal of European Public Policy* 26/4, 2019, pp. 483-500.

<sup>99</sup> M. Naczyk/B. Palier, Feed the Beast. Finance Capitalism and the Spread of Pension Privatisation in Europe, (Working Paper 2014); N. Röper, Capitalists against Financialization. The Battle over German Pension Funds, in: *Competition & Change* 25/3-4, 2021, pp. 428-452.

