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THE FINANCIAL GEOGRAPHY OF U.S. LIFE INSURANCE, 1880–1940

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ABSTRACT

This paper studies the transformation of American life insurance, the largest contractual savings institution in the United States before Social Security. As the market for insurance became national, did control over the savings it collected disperse with it? Using a newly digitized annual firm-by-state panel of premiums and losses covering nearly every U.S. life insurer from 1888 to 1940, I distinguish the geography of collection from the geography of control: where premiums were paid, and where the firms receiving them were domiciled. The industry was remade over these six decades. Real premium income rose more than twentyfold, the number of active insurers grew sixfold, incorporation shifted decisively from the Northeast toward the Midwest and South, and within-state concentration fell by nearly half. Control was rearranged, not dispersed. Chartering domestic insurers raised local retention almost entirely at the extensive margin. Across regions, this closed a large gap, as the Northeast retained nearly eleven times as much of its premium as the South in the 1890s and only twice as much by the 1930s, with nine-tenths of the convergence coming from Southern states acquiring domestic sectors where they had none. The national total held: firms domiciled where premium was raised collected just under a quarter of it in the 1890s and just over a fifth in the 1930s, even as household participation converged steadily across states. Legal permission to operate nationally sufficed to integrate the market in which insurance was sold, but not to disperse control over the investable cash it collected.

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1 Introduction

For more than a century, life insurance has been one of the most important financial intermediaries in the United States, mobilizing the savings of ordinary households into long-term investment in a national market. Long before Social Security, millions of families used life insurance contracts not only to protect dependents against premature death but also to accumulate savings, borrow against cash values, and transfer wealth. Insurers, in turn, converted those premiums into long-duration assets on a scale that rivaled or exceeded the banking system. By 1928, life insurers held roughly three times as much mortgage debt as state and national banks combined, held municipal debt on par with the nationally chartered banks, and were among the first and largest institutional investors in corporate bonds.

Despite this prominence, life insurance occupies a strikingly marginal place in the economic history of American finance. It has attracted far less attention than banks, securities markets, or mortgage lenders: in the roughly 1,800 pages of Engerman and Gallman's *Cambridge Economic History of the United States*, insurance receives about 18 pages, against multiple chapters and well over a hundred pages for banking and securities markets (Engerman and Gallman, 1996-2000). One reason for the neglect may be the enduring perception that life insurance was a stable oligopoly of a few giant firms headquartered in New York or Connecticut, an industry of limited entry, weak competition, and little economically meaningful variation. This paper shows that the view is incomplete. Between 1880 and 1940 the industry changed dramatically in its geography, market structure, and relationship to households: some 850 firms operated, most of them far from the traditional financial centers, and their entry and expansion generated rich variation in where insurance was sold and who controlled the savings it collected.

Using newly digitized firm-level spatial data, this paper provides a description of that transformation. I study how the U.S. life insurance industry built a national market for household saving between 1880 and 1940. The data combine annual firm-by-state information on premiums and losses with detailed accounting information for firms operating in New York. This structure makes it possible to follow both sides of the industry's geography: where insurance was sold and where the firms collecting those premiums were headquartered.

The central finding is that the rise of life insurance produced financial integration without full financial decentralization. The industry expanded well beyond the Northeast, new firms appeared in the Midwest and South after 1900, the number of firm-state markets increased, and state-level markets became more competitive. In many states, locally headquartered insurers became more

visible than they had been in the late nineteenth century. But these changes did not eliminate the dominance of large national insurers or the importance of older headquarters states. Most states continued to send the overwhelming majority of their premiums to firms incorporated elsewhere, and premium-weighted control remained concentrated in a small number of financial centers.

No statute produced that concentration. Throughout the period American commercial banks were largely confined by law to a single state, and in many states to a single office, so the geography of banking was determined by what regulation permitted rather than by what firms would have chosen (Sylla, 1969; White, 1983). Life insurers faced no such constraint. *Paul v. Virginia* left insurance to the states, but states regulated entry into their own markets rather than prohibiting insurers from operating across state lines, and a firm chartered in Hartford could and did collect premiums in every state. Life insurance is therefore a rare case in which a major intermediary was free to organize itself nationally under a fragmented regulatory regime, and it supplies a test the banking literature cannot run: whether the legal permission to operate nationally is by itself sufficient to disperse financial control. The answer here is that it is not. Permission produced integration on the business side, where firms sold everywhere and local markets grew competitive, but control over the resulting pool of household savings remained concentrated in the states where the industry had begun.

The paper makes three contributions. First, it documents the scale and geographic reach of life insurance as a national intermediary. The industry was not a marginal financial sector. It mobilized household premiums on a large scale and converted them into long-term assets. This matters for the history of American financial development because life insurers connected households to national capital markets through contractual saving products rather than through bank deposits or direct securities ownership.

Second, the paper distinguishes two geographies and shows that the industry became more geographically dispersed without becoming locally controlled. After 1900, firm formation shifted toward the Midwest and South, and state markets became less concentrated. This pattern complicates the standard image of a fixed oligopoly. At the same time, the evidence also shows the limits of decentralization. Local and regional firms entered in large numbers, but many remained small and geographically narrow. Large firms continued to dominate premium collection because they operated across many states and carried established agency networks, accumulated reserves, and national reputations. Domestic incorporation was not ineffective, but its effect was narrow: I find that a state's first domestic insurer raised its retained premium share by about six and a

half percentage points against a mean of ten, while the return to further entry decreased steeply. In the 1890s the Southern deficit was almost entirely a matter of how few of the insurers writing in a Southern state were its own; by the interwar decades that deficit in number had very nearly closed, and what remained was a deficit in size that had more than doubled. Southern states could legislate firms into existence, and did, but not the reserves, agency networks, and reputations that determined how much premium those firms went on to collect.

Third, the paper links the geography of firms to the geography of household participation. Household demand remained regionally uneven: per-capita premiums were persistently highest in the Northeast, while the South lagged throughout the period. A convergence analysis nonetheless shows that the states that began with the least participation grew fastest, at an unconditional rate of 1.9 percent per year, and that this catch-up is not explained away by the growth of economic activity or by regional composition; conditioning on either raises the estimated rate rather than lowering it. Participation therefore integrated even as control did not.

This study connects several literatures. It contributes first to the economic history of American insurance, a large but understudied intermediary. Earlier work has examined the industry's role in nineteenth-century capital mobilization (Pritchett, 1970; Zartman, 1906), the Armstrong investigation and the politics of regulation and organizational form (North, 1954; Ransom and Sutch, 1987; Merkel, 1991; Zanjani, 2007), its investment behavior (Huebner et al., 1932; Snowden, 1995), its experience during the Great Depression (Dickinson et al., 1933; Rose, 2017), and the influenza pandemic of 1918-19 (Cortes and Verdickt, 2025), while recent research revisits life insurance as a vehicle for household saving (Murphy, 2010; Arthi et al., 2025). Closest to the present paper is Janas (2026), which asks how individual insurers became large and geographically diversified through a costly and uncertain process of market entry. To this literature I add a systematic firm-by-state account of the industry's financial geography across six decades, one that distinguishes where premiums were collected from where the firms collecting them were domiciled. The paper also speaks to the literature on U.S. financial development and the integration of national capital markets, which have emphasized banks, securities markets, and mortgage finance (Davis, 1965; Snowden, 1995; Sylla, 1969), and to the study of household saving before the modern welfare state (Arthi et al., 2025; Murphy, 2010). Life insurers linked households to national capital markets through long-term contracts rather than deposits, and moved premiums from where they were collected toward where they were invested, yet control over those savings remained spatially concentrated in a few older centers.

The rest of the paper proceeds as follows. Section 2 provides historical background on life insurance contracts, household saving, and state regulation. Section 3 describes the data. Section 4 documents the aggregate growth and importance of the industry. Section 5 examines the two geographies of business and control. Section 6 turns to the geography of household demand. Section 7 quantifies the impact of local entry and how far household participation converged. Section 8 concludes.

2 Background

2.1 Life insurance as household saving

Ordinary life insurance was a central household financial product in the late nineteenth and early twentieth centuries. These policies were not simply death-benefit contracts. They combined insurance protection with a savings component. Policyholders made fixed premium payments and received a promised benefit either at death or, for some contracts, at maturity. Over time, policies accumulated cash value: policyholders could borrow against that value when liquidity needs arose or simply surrender the policy for cash (for example, during the Great Depression), or convert the policy to a less-lucrative but paid-up contract.

(Figure I about here)

Insurers sold the product in precisely these terms. The Metropolitan advertisement in Figure I promises not a death benefit but a list of household uses (“creating estates, paying off mortgages, educating children, providing income in retirement”) and closes by noting that the company is a mutual whose divisible surplus returns to policyholders as dividends. The Home Life notice of 1891 sells something else entirely: strength. It reports \$126 of admitted assets for every \$100 of liabilities and prints the portfolio behind them, mostly railroad bonds alongside federal and municipal issues and the stock of several banks and trust companies. The emphasis is understandable, because a household buying a thirty-year promise had to judge whether the firm would still be able to honor it in the distant future.¹ That requirement disciplined, in theory, both sides of the contract: regular premiums committed households to a structured saving plan, while long-dated liabilities obliged firms to hold conservative reserves and manage their assets with an eye to solvency decades ahead. The Home Life list highlights what those reserves financed: extensive regional and national railway

¹Both firms continue to operate today, albeit under different corporate names.

networks such as the Chicago and North-Western and the Delaware and Hudson rather than securities issued where the policies were sold. When a household in Kansas or Texas bought a policy from a firm headquartered in New York or Connecticut, its saving entered a national financial institution and was invested on a national scale.

2.2 State regulation and the politics of local finance

Life insurance was regulated primarily by the states. In *Paul v. Virginia* (1869), the Supreme Court held that issuing an insurance policy was not “commerce” under the Constitution, affirming that regulation was the responsibility of the individual states rather than the federal government. This precedent held until *United States v. South-Eastern Underwriters Association* (1944), so throughout the period studied in this paper each state wrote its own insurance law and maintained its own supervisory apparatus. Many states created insurance departments or commissioners’ offices (New Hampshire was the first, in 1851) to license companies, require annual financial statements, and set minimum capital and reserve requirements.

This structure produced a patchwork of regulatory environments that differed most visibly in the rules governing where insurers could invest. Massachusetts pioneered the admissible-asset approach in 1836, authorizing local municipal bonds as suitable investments for insurance reserves, and other states followed over the next several decades. The rules they adopted often had an explicitly geographic character. Wisconsin permitted its insurers to hold mortgages written within the state but not outside it; Texas and Washington required that a fixed share of assets be held in in-state government securities and mortgages; and New York, whose firms held the largest pool of industry assets, long barred its domestic insurers from making mortgage loans outside the state, keeping a large stock of capital in the Northeast (Snowden, 1995). Stringency varied as widely as focus. By the 1930s some states (Virginia, North Carolina, Alabama, and Florida) still imposed almost no limits on how insurers invested most of their funds, while others regulated investments tightly (Halaas, 1932). Minimum-capital rules shaped organizational form and entry as well: mutual companies formed disproportionately in states that set low capital requirements for mutuals, and rarely where those requirements were high (Zanjani, 2007).

The Progressive Era made these issues especially visible. The Armstrong investigation in New York, spurred by a 1905 exposé of self-dealing at the Equitable, exposed governance failures and conflicts of interest among the major life insurers (North, 1954; Ransom and Sutch, 1987). The reforms enacted in 1906 tightened reserve valuation, capped agents’ commissions and operat-

ing expenses, restricted speculative investments, banned deferred-dividend “tontine” policies, and required more detailed financial reporting (Zanjani, 2007). Because several of the largest firms were domiciled in New York and other states looked to it as a regulatory model, these reforms reshaped practice well beyond the state’s borders.

At the same time, the politics of local finance gave insurance geography a broader significance. Southern and Western politicians complained that premiums collected from local households were being funneled to Eastern financial centers and invested there rather than at home, a grievance that fed the wider Progressive-Era attack on the “money trust” (Merkel, 1991). Texas Governor Charles Culberson, for example, observed that between 1886 and 1897 Texans paid roughly \$25 million more in premiums than they received in claims, which he attributed to the export of local savings to New York (Zartman, 1906). Several states responded by promoting “home companies,” taxing out-of-state insurers more heavily, or requiring them to deposit securities in-state as a condition of doing business. The most striking example was the Robertson Insurance Law of 1907, sponsored by state representative James Harvey Robertson, which required companies operating in Texas to invest three-quarters of the reserves on their Texas policies within the state; rather than comply, a number of large out-of-state insurers withdrew from Texas in protest and returned only gradually. These measures did not dissolve the national character of the industry, but they shaped the environment in which firms chose where to incorporate, whether to enter, and how to compete.

2.3 The two geographies of insurance markets

The geography of life insurance can be described along two dimensions. The first is the geography of business: where firms collected premiums and paid losses. This geography reflects household demand, agency networks, and state permission to operate. The second is the geography of control: where the firms receiving those premiums were incorporated or headquartered. This geography reflects entry, regulation, and the location of financial decision-making.

The distinction is central to the paper. A state could have a large and competitive insurance market while still relying almost entirely on firms headquartered elsewhere. Conversely, a state could be important as a headquarters location even if its own residents accounted for only part of the firm’s business. The historical development of U.S. life insurance involved changes in both dimensions: firms sold policies in more places, more states developed domestic firms, and local markets became more competitive, but the premium-weighted hierarchy of headquarters locations remained persistent.

3 Data

The paper draws on two newly digitized sources. The first is the Insurance Year Book published by the Spectator Company. These annual volumes reported information on American and foreign insurance companies, including premiums, losses, policy types, firm characteristics, and state-level business activity. I use annual firm-by-state data on premiums and losses paid from 1888 to 1940. For the vast majority of years, the data cover the entire contiguous United States and the District of Columbia. Years for which comparable data are missing are excluded.

The second source is the Annual Report of the Superintendent of Insurance of the State of New York. These reports provide audited financial statements for firms operating in New York. They include balance-sheet and income-statement information, such as assets, liabilities, reserves, premiums, investment income, losses, commissions, dividends, policy loans, and lapsed-policy payments. I digitize these tables for the period 1880 to 1940 and use them here for the aggregate growth series of Section 4 and the policy counts of Section 6.

(Table I about here)

Together, the two sources allow me to study both market geography and firm finance. The Spectator data show where firms operated and how much premium they collected in each state. The New York reports show how firms managed assets and liabilities in one of the largest and most important insurance markets. The combination is especially useful because life insurance was both a spatially extensive retail business and a balance-sheet-intensive financial intermediary. I use state population, the urban share of population, and manufacturing output from the decennial censuses of 1880 through 1940, harmonized across volumes and interpolated log-linearly between census years (Haines and Inter-university Consortium for Political and Social Research, 2010). Nominal magnitudes are deflated to 2024 dollars using the consumer price index from MeasuringWorth (Williamson, 2026).

The firm-by-state dataset contains 156,197 firm-state observations and 850 unique firms. The median firm is observed for 43 years, but entry and exit are important features of the data: the number of active insurers rose from 56 in 1890 to a peak of 372 around 1930 before easing to 351 by the middle of the decade. The New York accounting data include 171 firms and 2,406 firm-year observations. These firms are heterogeneous in scale. The median firm operating in New York held about \$0.7 billion in assets in 2024 dollars, while the upper tail contained very large national insurers whose assets ran into the tens of billions.

I organize the data around several geographic measures. A firm’s state of business is the state in which it collected premiums or paid losses. A firm’s state of incorporation is the state in which it was legally domiciled. I also group states into broad regions: Northeast, Midwest, South, and West. For each state-year, I measure the share of premiums collected by in-state firms, the number of firms operating in the state, the number of firms domiciled in the state, and concentration in premium collection using the Herfindahl-Hirschman Index.

4 The Rise of a National Insurance Intermediary

Life insurers became major intermediaries in long-term capital markets. By the early twentieth century they held large amounts of mortgages, municipal securities, corporate bonds, and other assets, and their importance is clearest when they are placed alongside the banking system. Figure II shows this comparison for 1928. For each major financial instrument, it plots the share of the total amount outstanding held by life insurers and by the several classes of banks, namely national banks, state banks, loan and trust companies, and stock and mutual savings banks. The bank series are aggregated from the annual reports of the Office of the Comptroller of the Currency; the life-insurance series are aggregated from the *Spectator Insurance Year Book* and the Proceedings of the Annual Meeting of the Association of Life Insurance Presidents. Life insurers were not peripheral participants but central holders of long-term claims in several asset classes: they held roughly three times as much mortgage debt as state and national banks combined, held municipal debt on par with the nationally chartered banks, and ranked among the first and largest institutional investors in corporate bonds.

(Figure II about here)

Banks have received much of the attention in the history of American finance because they created deposits and provided short-term credit. Life insurers played a different role: they accumulated regular household premiums and invested them in long-duration assets. Their liabilities were long-term promises to policyholders, and their assets were chosen to support those promises. The 1928 comparison in Figure II is a single cross-section, but it captures a structural feature of the period: life insurers were especially important in markets where long maturities, predictable cash flows, and conservative investment strategies were valuable.

4.1 Aggregate growth, entry, and survival

The industry expanded rapidly between 1880 and 1940. Table II summarizes this growth from the annual reports of the New York Superintendent of Insurance, reporting the average annual percent change in the aggregate assets, liabilities, and revenue of firms operating in New York, in real terms in Panel A and in current dollars in Panel B. Over the full period, real assets grew 6.7 percent per year, revenue 6.8 percent, and liabilities 7.0 percent; in nominal terms the three series grew 7.2, 7.3, and 7.5 percent.

(Table II about here)

Growth was largely insensitive to the business cycle. Nominal asset growth was 7.20 percent in recession years against 7.22 percent in all others, and liabilities and revenue differ by less than half a point in either direction.² The real columns reverse the ordering, at 7.13 against 6.02 percent for assets, but the reversal reflects the price level rather than the business: recessions in this period were deflationary. Between 1929 and 1933 real assets and liabilities grew about 12.7 percent a year against nominal growth near 5 percent, and at the trough in 1932–33 the real figures exceed 11 percent against nominal growth of 2.6. Revenue is the exception: it grew 1.64 percent in nominal terms across the Depression window and fell 2.74 percent at the trough.

The aggregate series also show that life insurance was not a static sector. Figure III plots aggregate premiums and losses summed across all U.S. states, deflated to 2024 dollars, together with the number of active firms (labeled at five-year intervals) and an annual exit rate, drawing all three series from the *Insurance Year Book*. Real premium income rose from about \$3 billion in the mid-1880s to more than \$75 billion by 1940, and losses paid rose in step to about \$30 billion. The number of firms climbed from 56 in 1890 to a peak of 372 around 1930 before easing to 351 by 1935. Entry was especially pronounced in the first decade of the twentieth century, when the firm count nearly doubled between 1905 and 1910, from 116 to 223. This pattern indicates that the industry’s transformation involved both the scaling of incumbents and the entry of new firms. Many of these new firms were small, and their entry changed the geographic composition of the industry more than its premium-weighted center of gravity.

(Figure III about here)

²Recession years are those in which the NBER Business Cycle Dating Committee dates at least two quarters of peak-to-trough decline, and they include the contraction of 1930 through 1933.

Firms left the industry steadily but rarely failed. The exit rate in Figure III counts all firms that stopped reporting in a year, whether through reinsurance, merger, or acquisition, through outright failure, or through voluntary retirement, divided by the previous year’s firm count. This series runs between about 2 and 6 percent in most years and never reaches 10, with its highest readings around 1903, 1915, 1929, and 1931. Almost all of this is consolidation rather than insolvency: among firms whose exit can be classified, roughly nine in ten left through reinsurance, merger, or acquisition and fewer than one in ten failed. Across the period as a whole the industry displayed substantial institutional continuity, and the discontinuities it did experience typically transferred policies to another insurer rather than extinguishing them. This stability was part of the sector’s appeal and the combination of regulatory oversight, reserve requirements, and conservative balance-sheet management favored large and established firms over new entrants, a point that will matter for the geography of control.

The industry did not expand evenly across space. To understand its historical role, it is necessary to examine where firms were headquartered, where they sold policies, and how the relationship between those two geographies changed over time.

5 Two Geographies: Business and Control

5.1 Geography of business

The first dimension of financial geography is the geography of business: where firms collected premiums. Panel A of Figure IV maps total ordinary premium collected in each state in 1890 and 1940, in 2024 dollars and on common breakpoints. In 1890, collection was heavily concentrated in the Northeast and the eastern Midwest. No state reached the top bracket; New York, Massachusetts, Pennsylvania, Ohio, and Illinois formed the highest class attained, between \$250 million and \$1 billion, while much of the Mountain West and parts of the South collected under \$10 million. By 1940 premium collection had spread across the entire country. California had joined New York, Pennsylvania, Ohio, Illinois, and Michigan above \$4 billion; Texas, Minnesota, Wisconsin, Missouri, and much of the upper South had moved into the \$1 to \$4 billion range; and no state remained below \$10 million.

(Figure IV about here)

The reach of individual firms widened alongside this diffusion. Panel B of Figure IV plots the number of states (including the District of Columbia) in which firms operated, showing the cross-

firm median, unweighted mean, and 90th percentile in each year, together with the total number of firm-by-state observations in the *Year Book*. In the late nineteenth century many established firms already operated across a substantial number of states: before 1900 the median firm wrote in roughly 15 to 20 states, the mean was of the same order, and the 90th percentile stood between about 40 and 47, so national and multi-state operations were present well before the turn of the century.

The pattern changes after 1905. The total number of firm-state connections rises steeply, from roughly 1,800 around 1905 to about 4,100 by 1940, but the median number of states per firm falls sharply, from about 13 to 3 or 4, and the mean falls from a peak near 23 to about 9 before recovering to roughly 13. This combination is important. It does not indicate that existing firms retreated from national markets: the 90th percentile fell to about 30 and stayed there for some fifteen years, then climbed back to about 49 states, nearly the entire country, by 1940. Instead, the fall in the median reflects entry by many smaller firms operating in fewer states. The industry became more geographically dense because more firms entered local and regional markets, even as the typical firm became less geographically extensive. By the interwar period, the industry contained a mixture of large national insurers, medium-sized multi-state firms, and small regional firms.

5.2 Geography of control

The second dimension is the geography of incorporation and financial decision-making. Panel A of Figure V plots the number of firms incorporated in each region over time together with the Northeast's share of aggregate national premium on the right axis. Here the early twentieth century marks a clear turning point. Before 1905, incorporation was overwhelmingly Northeastern in weight if not in count: the region held between about 32 and 40 incorporated firms, the Midwest fewer than 25, and the South and West only a handful each. Between roughly 1905 and 1913 the number of firms incorporated in the Midwest and South rose sharply, the Midwest climbing from about 20 firms in 1900 to more than 100 by 1911 and the South from near zero to about 40. This shift coincided with Progressive Era regulatory changes, the politics of home-company promotion, and the growth of regional markets.

(Figure V about here)

The increase in Midwestern and Southern firm counts is one of the clearest signs that the

industry was not fixed in its nineteenth-century geography. Midwestern incorporation peaked near 150 firms around 1930 before easing to about 120 by 1940, and the South rose to roughly 120 as well, so that both regions came to hold about twice as many incorporated firms as the Northeast’s 60 and five times as many as the West’s 25. Entrepreneurs founded new firms outside older Northeastern centers, and state governments had reasons to encourage them, particularly where political leaders worried that premiums collected from local residents were being controlled by distant firms. The entry of these firms gave many states a more visible domestic insurance sector.

But the premium-weighted geography changed much less than the firm-count geography. The Northeast’s share of national premium, plotted on the right axis of Figure V, fell only from about 0.90 in the late 1880s to roughly 0.77 by 1940, and its lowest readings, near 0.72, came around 1920. Even as the Midwest and South came to hold four times as many incorporated firms as the Northeast, more than three-quarters of national premium still flowed to Northeastern firms at the end of the period. This divergence between firm counts and premium shares implies that incorporation dispersed more than financial control. The entry of many small firms changed the institutional landscape, but large established insurers retained strong advantages in premium collection rooted, plausibly, in brand recognition or agency networks.

5.3 Local markets became competitive

Market structure changed substantially at the national level. Panel A of Figure VI plots two measures of concentration in national premium collection: the log ratio of the 90th to the 10th percentile of firm-level premium, and the share of premium collected by the five historically dominant firms: New York Life, Mutual, Metropolitan, Equitable, and Northwestern Mutual. The top-five share fell markedly, from about 0.56 in the early 1890s and 0.52 in 1900 to roughly 0.40 by 1940, so firms that had once collected well over half of all national premium collected only two-fifths by the end of the period. The 90/10 log ratio, a measure of firm-size dispersion, ran between about 5.5 and 6.5 before 1905, narrowed to about 4.4 by 1920, and widened again to about 5.7 by 1940 as the largest firms pulled away from a lengthening tail of small entrants.

(Figure VI about here)

Concentration fell within states as well. Panel B plots the state-level Herfindahl index of premium collection, its cross-state median and 25th-to-75th-percentile range, alongside the national HHI. The median within-state HHI fell by nearly half, from about 0.14 in 1890 to roughly 0.075 by

1940, and the interquartile range across states narrowed sharply, from roughly 0.11–0.23 in the early 1890s to 0.06–0.09 by the end of the period, so that markets became not only less concentrated but also markedly more alike in their concentration. The national HHI, already low, fell from about 0.08 to 0.055, well beneath the level the image of a simple oligopoly would imply. None of this made firms equal: premium collection remained highly unequal, and the largest insurers continued to collect vastly more than small entrants. What changed was the structure of competition, from one in which a few older firms dominated many markets to one in which those firms competed alongside a broader set of regional and local entrants.

5.4 The limits of decentralization

The key question for financial geography is whether this increased competition translated into local control of household savings. The answer is only partially. The presence of in-state firms increased in many places between 1890 and 1940. States that had little or no in-state premium collection in the late nineteenth century often had some domestic firms by the interwar period. This was especially visible in parts of the Midwest and South, where entry was strongest.

(Figure VII about here)

Panel A of Figure VII tracks the share of premium collected by firms domiciled in the state where it was paid, showing the premium-weighted national share alongside the unweighted cross-state mean, the 25th percentile, and the maximum. The national share is flat and low: it begins near 0.27 in the late 1880s, holds between 0.20 and 0.23 for five decades, and stands at 0.195 in 1940, so that roughly four-fifths of American premium was collected by out-of-state firms at both ends of the period. The unweighted mean runs at about half that level throughout, since retention rises with market size and the large states that dominate the weighted series count once each here; it rose from about 0.055 in the mid-1890s to roughly 0.135 by the mid-1910s before easing to 0.105 by 1940. The 25th percentile was indistinguishable from zero until 1908 and never exceeded about 0.06 thereafter, so that in at least a quarter of states domestic firms collected almost nothing. The maximum, the single most self-supplied state in each year, fell from about 0.75 in the early 1890s to 0.48 by 1940, so that by the end of the period no state retained a majority of the premium its households paid. Large national firms sold policies across many states and their scale let them retain substantial shares everywhere; local participation increased while local dominance became rarer.

The little local dominance that did exist was concentrated in the largest markets, which were themselves the headquarters of the major insurers. Panel B plots each state’s in-state share against its percentile in the distribution of total premium, in 1890 and 1940. In-state share rises with market size: the great majority of states, at low and middle percentiles, retained essentially none of their premium in 1890, while only the largest markets held a meaningful domestic share, led by New York at about 0.69. By 1940 the whole distribution had shifted upward, as more states developed domestic firms and the mass of states at zero disappeared, but the very top had fallen, with the most self-supplied large market retaining about 0.48. Local retention was thus the privilege of a few large headquarters states; everywhere else, premium flowed to firms domiciled elsewhere.

The industry became more geographically inclusive in the sense that more regions had firms and competitive state markets. It did not, however, become geographically equal in the sense of distributing control over premiums proportionally across states. The life insurance market thus illustrates a broader feature of American financial development: national integration could expand access while preserving the importance of established financial centers. One explanation for the gap is that the premiums were never there to be retained, and that the regions chartering the most firms were also those where households bought the least. Section 6 takes up the geography of household demand; Section 7 then puts magnitudes on both.

6 Households and the Geography of Demand

Demand was distributed as unevenly as supply. Households bought policies for protection, saving, liquidity, and wealth transfer, and, unsurprisingly, the same regional hierarchy that governed where firms were domiciled also governed where households bought the most insurance.

Part of what expanded that demand was falling relative prices. Table III illustrates this with the premium rates of a single large insurer, Aetna, set against average manufacturing wages. Aetna is used here as an example rather than as a market average, as its rate book is accessible across the full period and its contracts were conventional. Nominal premium rates were nearly flat between 1893 and 1929: continuous whole-life coverage at age 50 cost about \$44.70 per \$1,000 in 1893 and \$43.73 in 1929. But the average manufacturing wage rose almost fourfold over the same span, from \$0.15 to \$0.56 an hour, so the labor time required to buy a fixed amount of real coverage fell by nearly half, from about 296 hours of work in 1893 to 153 hours in 1929. This decline reflected both rising wages and improvements in pricing, scale economies, and mortality experience.

(Table III about here)

A product that had once been relatively expensive became more accessible to working- and middle-class households. This affordability helps explain the growth of policy counts and premiums before 1940, and why life insurance became a mass financial product rather than a narrow instrument for elites.

Demand nonetheless expanded unevenly across space. Panel B of Figure V plots average per-capita premium by region, in 2024 dollars, together with the share of all premium collected in Northeast states. Per-capita premiums were consistently highest in the Northeast, rising from about \$90 in the late 1880s to a peak near \$645 in 1932 and about \$600 by 1940. The Midwest and West converged toward Northeastern levels over time, reaching roughly \$460 at their 1932 peak and \$420 by 1940, while the South remained persistently lower, at about \$215 by 1940, never fully catching up with the other regions. As demand spread, the Northeast's share of premium collected fell from about 0.57 in the late 1880s to roughly 0.41 by 1940, reaching its lowest point, near 0.345, around 1920.

(Figure VIII about here)

Falling relative prices show up in the number of contracts households held. Figure VIII plots New York policy counts per capita on the left axis and two measures of drawdown on the right. Whole-life policies rose steadily, from about 0.04 in the mid-1890s to roughly 0.40 by 1930. Industrial policies, sold door to door in small denominations to working-class households, grew far larger in number, rising from about 0.41 in 1901 to a peak near 1.23 around 1930, more than one policy per resident (these contracts were small and a household could hold several). The Depression then reveals the dual character of the contract: policy loans, which had drifted from about 2 percent of admitted assets in the mid-1890s to 11 percent by the First World War and held near that level through the 1920s, rose to 17 percent by 1932. Payments on lapsed and surrendered policies moved more sharply still, from a band between 9 and 16 percent of disbursements that had held for four decades to 33 percent at the trough in 1932–33, before both series retreated by 1940. Households drew on the savings embedded in contracts they already held, and it was the small working-class contracts they gave up: industrial policies fell to about 0.90 per resident by 1940 while whole-life counts merely flattened.

These regional differences plausibly reflect income, urbanization, occupational structure, household wealth, access to agents, and the availability of competing savings institutions, and the descriptive evidence cannot isolate any one of them. What it does establish is that the nation-

alization of the insurance market did not produce uniform household participation, and that raises a question for the geography of control. The Northeast was both the region where most large firms were domiciled and the region where households bought the most; the South chartered insurers in quantity but its households bought least. It is natural to read the second fact as the explanation of the first, and to conclude that Southern incorporation failed to shift national premium control because there was too little local premium to retain. Section 7 tests that conjecture directly.

7 Quantifying Integration and Control

The preceding sections established two patterns: (1) local markets grew competitive and states acquired domestic insurers, yet control over investable funds stayed where it had begun; and (2) household participation spread across the country, yet the South never caught up. This section attaches magnitudes to both. The first exercise asks how much local control a state obtained by chartering its own insurers. The second decomposes what remains of the regional gap into the number of domestic insurers and their size, separating the margin a charter could create directly from the margin that accumulated only over decades. The third asks how fast participation converged across states, and how much of that convergence survives conditioning on the growth of economic activity and on regional composition.

7.1 Local entry and premium retention

Figure V showed that the Midwest and South came to hold far more incorporated insurers than the Northeast while the Northeast retained more than three-quarters of national premium, and Figure VII showed that the average state’s in-state premium share settled near 0.10. Those two facts are consistent with a range of underlying relationships. Domestic incorporation may have raised local retention substantially, with the aggregate pattern reflecting the small number of firms involved; or it may have raised retention hardly at all, with domestic firms too small to matter regardless of their number. The distinction separates a story about the scale of local entry from a story about its futility, and it has different implications for how one reads the home-company politics of Section 2.

I estimate, over the panel of states and years,

$$\text{InStateShare}_{st} = \beta_1 \ln(N_{st}^{\text{dom}} + 1) + \beta_2 \ln \text{PremiumPC}_{st} + \gamma' X_{st} + \alpha_s + \alpha_t + \varepsilon_{st}, \quad (7.1)$$

where InStateShare_{st} is the share of premium collected in state s in year t by firms domiciled in s ; N_{st}^{dom} is the number of insurers domiciled in the state; PremiumPC_{st} is premium collected per capita, the measure of local demand from Section 6; and X_{st} collects manufacturing output per capita, the urban share of population, and the number of out-of-state insurers writing business in the state. The domestic count enters as $\ln(N + 1)$ rather than $\ln N$ so that states with no domestic insurer remain in the sample: conditioning on having a domestic insurer would drop precisely those observations in which local incorporation had accomplished nothing, and Table V shows that in the 1890s these were four-fifths of the South. The transformation also makes β_1 most informative about the extensive margin, since the largest movement in $\ln(N + 1)$ is the step from zero to one. State effects α_s absorb time-invariant differences in market size, regulatory posture, and industrial structure, so that β_1 is identified from changes over time within a state, and year effects α_t absorb national trends in entry and in the growth of the industry. Standard errors are clustered by state.

(Table IV about here)

The estimates are reported in Table IV. Column (1) reports the specification without state effects, so that the cross-state variation is visible; columns (2) through (4) add state effects and then the controls in sequence; column (5) replaces the year effects with region-by-year effects, so that β_1 is identified by comparing states within the same region and year; and column (6) repeats column (4) with the domestic count entered as a set of indicators rather than as a logarithm.

I find that domestic incorporation raised local retention by an economically meaningful amount, and that the return to it fell away steeply. In the full specification of column (4) the coefficient is 0.080 (s.e. 0.012), and it is stable across specifications, at 0.082 with state and year effects alone, 0.080 with the full set of controls, and 0.078 when identification is restricted to comparisons within a region and year.

Column (6) establishes that the concavity this implies is a property of the data rather than of the functional form. With states having no domestic insurer as the omitted category, a state's first domestic insurer raised its retained share by 0.065 (s.e. 0.011) against a sample mean of 0.104. The second added 0.022, the next three 0.034 between them, and the five after that 0.031; a state with more than ten domestic insurers retained 0.220 more than one with none. The profile is monotone and sharply concave. The first insurer is worth about three times the second and eight times each of the sixth through tenth, and on its own it delivers thirty percent of what having more than ten delivers, against the twenty-five percent a log-linear profile would imply. Chartering

home companies worked in the direction its advocates intended, and what it chiefly bought was the difference between having a domestic insurance sector and having none.

I find no evidence that local demand accounts for retention. The coefficient on log premium per capita is 0.011, 0.001 and 0.001 across columns (3) through (5) and 0.001 in column (6), with standard errors of the same order, and is never distinguishable from zero. This matters for the interpretation of Section 6: the natural reading of the regional demand series, that Southern firms retained little because Southern households bought little, is not supported once the size of the domestic sector is held fixed. Manufacturing output per capita enters positively, at 0.037 (s.e. 0.016) in column (4) and 0.029 under region-by-year effects, so more industrial states retained somewhat more of their premium.

Retention is nonetheless overwhelmingly a persistent state attribute in its level. Adding state effects raises the adjusted R^2 from 0.453 to 0.879, while the four covariates together add 0.005. The geography of control was durable in a way that the geography of firm counts was not, and the subsection that follows asks what the durable part consisted of.

7.2 Relative size of domestic insurers

Table IV establishes that domestic incorporation raised local retention, and that most of what it bought was the first firm rather than the twentieth. A state's retained share is the product of how many of the insurers operating there were its own and how large those insurers were relative to the firms they competed against. A region can retain little either because few of the firms present are domestic or because the domestic ones are small.

Writing N^{dom} for the number of insurers domiciled in a state and writing business there, N for the number writing there from anywhere, and summing over all state-years in a region and period,

$$S = \frac{\sum \text{domestic premium}}{\sum \text{total premium}} = \underbrace{\frac{\sum N^{\text{dom}}}{\sum N}}_{\text{count margin } C} \times \underbrace{\frac{\bar{q}^{\text{dom}}}{\bar{q}}}_{\text{size margin } R}, \quad (7.2)$$

where $\bar{q}^{\text{dom}}$ and $\bar{q}$ are mean premium per domestic insurer and mean premium per insurer present, respectively. The two margins multiply so that $\ln S = \ln C + \ln R$ exactly and the difference between two regions splits into a count contribution and a size contribution. Aggregating before taking logs is what allows states with no domestic insurer to be included: such a state contributes zero to both numerators and its full weight to both denominators. The size margin R is the ratio of mean premium per domestic insurer to mean premium per insurer present, so a value of one means the

average domestic insurer collected as much in the state as the average insurer operating there.

(Table V about here)

Table V reports the decomposition in four panels. Panel A reports the regional aggregates. The Northeast retained 0.338 of its premium, while the South retained 0.148 against the Midwest's 0.115. The two margins explain how. The Midwest had the most domestic insurers of any region, 7.1 per state-year against the South's 3.6, but they were of ordinary size: its size margin is 1.07, meaning the average Midwestern domestic insurer collected almost exactly what the average insurer operating in the state collected. The South had fewer domestic insurers and larger ones, at 2.13. The West is the extreme case, with 1.4 domestic insurers per state-year, present in only 53 percent of state-years, but the second largest relative to their competition at 2.81. Local retention was less a matter of how many firms a state chartered than of what kind.

Panel B decomposes the Northeast–South gap by decade, and the composition of the gap inverts as its level falls. The gap declines monotonically, from 2.371 log points in the 1890s to 0.704 in the 1930s, which is to say from a ratio of nearly eleven to one down to two to one. Within that decline the two margins move in opposite directions. The count margin falls from 2.158 to 0.212, a reduction of ninety percent: by the interwar decades the South had very nearly closed its deficit in the share of local insurers that were its own. The size margin more than doubles over the same span, from 0.214 to 0.492, so that what began as a gap in number ended as a gap in scale. In the 1890s ninety-one percent of the Southern deficit was a count deficit; by the 1930s seventy percent of a much smaller deficit was a size deficit.

Panel C reports the level of retention by region and decade and investigates whether the convergence came from the South rising or the Northeast falling. It came overwhelmingly from below: Southern retention rises from 0.036 to 0.163, a factor of more than four, while Northeastern retention falls from 0.391 to 0.330, a decline of sixteen percent. Of the 1.667 log points by which the gap closed, the Southern rise accounts for about 1.51 and the Northeastern decline for about 0.17, so roughly nine-tenths of the convergence is the South gaining rather than the Northeast losing. By the 1920s the South had passed the Midwest, at 0.157 against 0.133, and by the 1930s it retained more than any region except the Northeast.

Panel D shows what the South's rise consisted of, and the answer is the extensive margin almost to the exclusion of anything else. The share of Southern state-years with at least one domestic insurer runs 19.4, 57.7, 98.8, 98.2 and 100.0 percent across the five periods. In the 1890s

four Southern states in five had no domestic insurer at all; by 1910 essentially every one did. The count margin accordingly rises from 0.015 to 0.082, and it accounts for more than the whole of the region’s gain: decomposing the South’s own change, the count margin contributes +1.70 log points and the size margin -0.18 . Southern domestic insurers became more numerous and, relative to the firms they competed with, slightly smaller, falling from 2.39 to 1.99 while the Northeast’s rose from 2.96 to 3.26. The Northeast moved along the same margin in the other direction, its count share falling from 0.132 to 0.101 as insurers domiciled elsewhere came to make up more of the firms writing in its markets.

The national aggregate ties these movements together. The final column of Panel C reports the in-state share for the country as a whole, and it runs 0.243, 0.214, 0.223, 0.220 and 0.209: roughly four-fifths of American life insurance premium was collected by out-of-state firms at the beginning of the period and roughly four-fifths at the end. What happened between 1880 and 1940 was a redistribution of local control among regions, not an increase in it. The South gained approximately what the Northeast lost, and the country as a whole came no closer to keeping its premiums at home. Control did disperse across regions, substantially and measurably. It did not disperse from national firms to local ones, because the aggregate share held by firms domiciled where the premium was collected did not rise.³

7.3 Convergence

The third exercise turns from control to participation. Panel B of Figure V showed regional per-capita premium series that rise together while remaining ordered, with the South below the other three regions throughout. Whether that constitutes integration depends on whether the states that started low grew faster, and on whether any such catch-up survives conditioning on the growth of economic activity and on regional composition.

I estimate the standard convergence specification across states,

$$\frac{1}{T} \ln \left(\frac{p_{s,1940}}{p_{s,1890}} \right) = \alpha + \beta \ln p_{s,1890} + \gamma' Z_s + \varepsilon_s, \quad (7.3)$$

³Two features of the construction should be kept in mind when reading these magnitudes. Because equation (7.2) aggregates premium, large states carry more weight than small ones, so the Northeastern series is essentially New York and Massachusetts, and the Southern series substantially Texas. The Southern series moves almost entirely in one decade, between the 1900s and the 1910s, when retention rises from 0.051 to 0.121 and coverage from 58 to 99 percent. That is the decade following the Robertson Insurance Law of 1907, which required insurers operating in Texas to invest three-quarters of their Texas reserves in the state and in response to which, as Section 2 describes, a number of large out-of-state insurers withdrew. Withdrawal by out-of-state firms raises the in-state share mechanically, by removing the denominator rather than by building the numerator.

where p_s is real premium per capita in state s , $T = 50$, and Z_s contains the growth of manufacturing output per capita over the same interval, the initial urban share, and in some specifications region dummies. A negative β indicates that states with low initial participation grew faster. Following the usual convention, the implied annual rate of convergence λ solves $\beta = -(1 - e^{-\lambda T})/T$, and the associated half-life is $\ln 2/\lambda$. Because β is estimated from a single long difference on 48 observations, I report heteroskedasticity-robust standard errors and treat the point estimates as indicative rather than precise. The initial level is a three-year average centered on 1890, and the terminal level a three-year average centered on 1939, which attenuates the downward bias that measurement error in a single initial year induces in β .

(Figure IX and Table VI about here)

Figure IX and Table VI report the results. I find strong unconditional convergence. The estimate in column (1) is $\beta = -0.012$ (s.e. 0.0011), implying $\lambda = 1.9$ percent per year and a half-life of about 37 years, and the initial level alone accounts for 77 percent of the cross-state variation in growth. The rate is close to the roughly two percent per year that the literature has estimated for the convergence of state per-capita incomes over comparable horizons (Barro and Sala-i-Martin, 1992), which is itself notable: participation in a financial product that barely existed in much of the country in 1890 converged at about the pace of income.

Panel A of Figure IX plots the relationship that column (1) estimates. The states span more than four log points in initial participation, a spread of better than sixty to one between Idaho at the bottom and Massachusetts at the top in 1890, and the fit through them is tight. Idaho and Mississippi, the two lowest in 1890, grew at close to ten and eight percent a year over the following half century; Massachusetts, the highest, grew at about three and a half, among the slowest in the sample. Convergence here is not a marginal tendency detected in a narrow cross-section but the dominant feature of a wide one.

Conditioning strengthens rather than weakens the result, which is the opposite of what one would expect if the convergence were a by-product of catch-up in economic activity. Adding the growth of manufacturing output per capita in column (2) moves β to -0.014 (s.e. 0.0015), raising λ to 2.3 percent and shortening the half-life to 30 years. Adding region effects in column (3) leaves it at -0.014 with $\lambda = 2.6$ percent, so states were converging on one another within regions at least as fast as the pooled estimate implies. Adding the initial urban share in column (4) moves β to -0.016 ($\lambda = 3.5$ percent, half-life 20 years), with initial urbanization itself entering at 0.028 (s.e.

0.0062): states that were more urban in 1890 grew faster in participation thereafter, so that the low-participation states converged despite, rather than because of, their initial composition. I find, in short, that convergence in household participation was a feature of the insurance market rather than a shadow of convergence in the economy underneath it.

Panel B of Figure IX reports the cross-state dispersion of log real premium per capita in each year. It falls by about a third over the period, from roughly 0.68 at its peak in the late 1890s to 0.46 in 1940, but the path between those endpoints is not monotone and it qualifies the interpretation of β . Dispersion drops steeply to about 0.44 by 1905 and continues down to a trough near 0.33 around 1920, then reverses: through the 1920s and into the 1930s the distribution widens again, reaching about 0.50 by the middle of the decade before easing back to 0.46. Convergence in household participation was therefore concentrated in the quarter century before 1920, the period in which entry, falling relative prices, and the extension of agency networks were doing their most visible work, and the interwar decades undid a third of it. The estimate in Table VI averages over both phases and reports the net, so it should be read as a summary of the full window rather than as a rate that prevailed throughout it. The widening coincides with the period in which, as Section 5 showed, the largest firms were pulling away from a lengthening tail of small entrants, so the integration of household participation and the consolidation of premium collection were not moving in the same direction after 1920.

The three exercises together describe the same asymmetry from several sides. Household participation in life insurance spread widely, the states that began with the least gained the most, and the catch-up is not an artifact of activity growth or of regional composition, so the industry did integrate on the demand side. On the supply side the picture is more nearly a rearrangement than a spread. The Northeast–South gap in retention narrowed by three-quarters, and nine-tenths of that narrowing was the South rising, so control did disperse across regions. But the country as a whole retained no more of its premium at the end of the period than at the beginning, a little over a fifth in both cases, and the dispersion took the form of states acquiring a domestic sector rather than of any state’s domestic sector coming to dominate its own market. Participation converged toward a common and rising level. Control was redistributed at an unchanged aggregate, and it was redistributed on the one margin: the presence of local firms.

8 Conclusion

Between 1880 and 1940, U.S. life insurance developed into a national system of household saving. Life insurers collected premiums across the country, invested in long-term assets, and provided households with contracts that combined protection, saving, collateral, and liquidity. The industry's growth was therefore an important part of American financial development before Social Security.

The main historical lesson is that financial integration did not require financial decentralization. The industry became more geographically extensive: firm entry spread beyond the Northeast, and state-level insurance markets became more competitive. In-state firms appeared in places where they had previously been absent. Yet the premium-weighted control of the industry remained concentrated. Most states continued to rely heavily on firms headquartered elsewhere, and large national insurers retained advantages rooted in scale, agency networks, and credibility. A state's first domestic insurer raised its retained premium share by about six and a half percentage points against a mean of ten, and further entry added much less. Participation, meanwhile, converged across states at 1.9 percent per year unconditionally and faster still once the growth of economic activity and regional composition are held fixed.

The regional gap in retention did narrow. The Northeast retained nearly eleven times the Southern share in the 1890s and only twice as much by the 1930s, and nine-tenths of that convergence was Southern retention rising rather than Northeastern retention falling. Control did disperse across regions. But the South's gain was almost wholly a matter of acquiring domestic insurers where it had none, its share of state-years with any domestic insurer rising from 20 percent to 100 percent, while the size of those insurers relative to the firms they competed with fell rather than rose. The national aggregate barely moved: just under a quarter of American premium was collected by firms domiciled where it was raised in the 1890s, and just over a fifth in the 1930s. What the period produced was a redistribution of local control among regions at an almost unchanged national total.

This pattern complicates two simple views of the industry. Life insurance was not a static oligopoly in which a few firms faced little meaningful competition. The data show entry, regional dispersion, falling concentration, and expanding and converging household participation. But neither was it a fully decentralized system in which local companies captured local savings. The more accurate description is a layered national market: local agents and policyholders, state regulation and domestic entrants, but persistent concentration of institutional control in major headquarters states.

What makes that structure informative is that no law imposed it. American commercial banks were confined by statute to a state and often to a single office, so the geography of banking can be read directly off the statute book (Sylla, 1969; White, 1983), and what banks would have done unconstrained cannot be observed. Life insurers faced no such restriction and organized themselves nationally from an early date, which makes the industry the counterfactual the banking literature lacks. Permission to operate across state lines proved necessary for a national market in household saving and insufficient to distribute control of it: scale, reputation, and accumulated reserves did the rest of the work, and they were concentrated where the industry had begun. The paper also suggests that the geography of financial development should be studied not only through banks and securities markets, but also through contractual savings institutions. Life insurance linked households to national capital markets through long-term promises rather than deposits or direct investment. Its history therefore reveals a distinctive form of American financial integration: broad and converging participation from households across space, but enduring spatial hierarchy in the institutions that controlled and invested their savings.

References

- Arthi, Vellore, Gary Richardson, and Mark Van Orden**, “Ordinary Lives: Insurance and Savings in America, 1861 to 1941,” Working Paper 2025-2, Center for Retirement Research at Boston College 2025.
- Barro, Robert J and Xavier Sala-i-Martin**, “Convergence,” *Journal of Political Economy*, 1992, 100 (2), 223–251.
- Cortes, Gustavo S. and Gertjan Verdictt**, “Risk Management in Deadly Times: The U.S. Life Insurance Industry in the 1918–9 Influenza Pandemic,” *Economic History Review*, 2025.
- Davis, Lance E**, “The investment market, 1870–1914: The evolution of a national market,” *The Journal of Economic History*, 1965, 25 (3), 355–399.
- Dickinson, Frank G, David McCahan, GF Michelbacher, EL Bowers, CA Kulp, FE Wolfe, and CL Parry**, “The Record of Insurance During the Depression,” *The American Economic Review*, 1933, 23 (1), 12–22.
- Engerman, Stanley L and Robert E Gallman**, *The Cambridge economic history of the United States*, Vol. 1,2, and 3, Cambridge University Press, 1996-2000.
- Haines, Michael R. and Inter-university Consortium for Political and Social Research**, “Historical, Demographic, Economic, and Social Data: The United States, 1790–2002,” Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], ICPSR02896-v3 2010. <https://doi.org/10.3886/ICPSR02896.v3>.
- Halaas, ET**, “Legal Control of Life Insurance Company Investments,” *The Journal of Business of the University of Chicago*, 1932, 5 (4), 321–334.
- Huebner, SS, Robert Riegel, SH Nerlove, MC Rorty, HD Corey, J Lloyd Mahony, and Dwight C Rose**, “Investments of Life Insurance Companies,” *The American Economic Review*, 1932, 22 (1), 128–136.
- Janas, Pawel**, “Diversification as a Process: Geographic Expansion and the Formation of National Insurers,” Working Paper, California Institute of Technology 2026.
- Merkel, Philip L**, “Going national: the life insurance industry’s campaign for federal regulation after the Civil War,” *Business History Review*, 1991, 65 (3), 528–553.
- Murphy, Sharon Ann**, *Investing in life: Insurance in antebellum America*, Johns Hopkins University Press, 2010.
- North, Douglass C**, “Life insurance and investment banking at the time of the Armstrong Investigation of 1905-1906,” *The Journal of Economic History*, 1954, 14 (3), 209–228.
- Pritchett, Bruce Michael**, *A Study of Capital Mobilization, The Life Insurance Industry of the Nineteenth Century*, Purdue University, 1970.
- Ransom, Roger L and Richard Sutch**, “Tontine insurance and the Armstrong investigation: a case of stifled innovation, 1868–1905,” *The Journal of Economic History*, 1987, 47 (2), 379–390.
- Rose, Jonathan D**, “Financial crises at insurance companies: learning from the demise of the National Surety Company during the Great Depression,” *Financial History Review*, 2017, 24 (3), 239–264.
- Snowden, Kenneth**, “The evolution of interregional mortgage lending channels, 1870-1940: The life insurance-mortgage company connection,” in “Coordination and information: Historical perspectives on the organization of enterprise,” University of Chicago Press, 1995, pp. 209–256.
- Sylla, Richard**, “Federal policy, banking market structure, and capital mobilization in the United States, 1863–1913,” *The Journal of Economic History*, 1969, 29 (4), 657–686.
- White, Eugene Nelson**, *The Regulation and Reform of the American Banking System, 1900–1929*, Princeton, NJ: Princeton University Press, 1983.

- Williamson, Samuel H.**, “The Annual Consumer Price Index for the United States, 1774–Present,” MeasuringWorth 2026. Accessed: 2026-07-20.
- Zanjani, George**, “Regulation, capital, and the evolution of organizational form in US life insurance,” *American Economic Review*, 2007, 97 (3), 973–983.
- Zartman, Lester William**, *The investments of life insurance companies*, H. Holt, 1906.

9 Figures

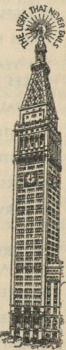
Figure I: Ads for Metropolitan Life (1930) and Home Life (1891), *The Insurance Year Book*

Metropolitan Life
Insurance Company's contracts
afford a means to

- create estates and incomes for families
- pay off mortgages
- educate children
- provide income in the event of retirement
- establish business credits
- stabilize business organizations by indemnifying them against the loss of keymen
- provide a temporary income in the event of incapacity resulting from accident or sickness
- provide group protection for employees covering accident, sickness, retirement, and death.

The Metropolitan is a mutual organization. Its assets are held for the benefit of its policyholders, and any divisible surplus is returned to its policyholders in the form of dividends.

METROPOLITAN LIFE INSURANCE COMPANY
Frederick H. Ecker 1 Madison Avenue Leroy A. Lincoln
Chairman of the Board New York, New York President



NOT HOW BIG? BUT HOW STRONG?

— THE —

Home Life Insurance Co.
— OF NEW YORK —

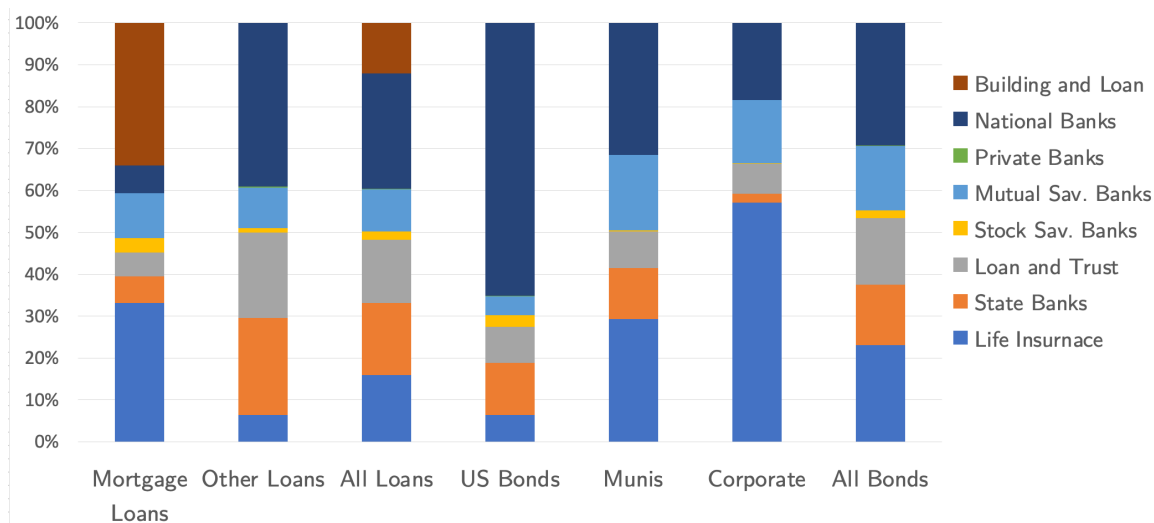
**Has over \$126 of Assets to secure every
\$100 of Liabilities.**

BONDS AND STOCKS OWNED BY THE COMPANY.

United States 4 per cent Bonds.
Brooklyn City, Public Parks, 7 per cent Bonds.
Erie R. R. 2d Mortgage, Cons. 6 per cent Bonds.
Erie R. R., funded, 5 per cent Bonds.
New York, Chicago and St. Louis R. R. 4 per cent Bonds.
New York, Lack. and Western R. R. Cons't 5 per cent Bonds.
Albany and Susquehanna R. R., 1st Cons. 6 per cent Bonds.
Morris and Essex R. R., 1st Cons. 7 per cent Bonds.
Chicago and North-Western R. R. Cons. 7 per cent Bonds.
Oswego and Syracuse R. R. Cons't 5 per cent Bonds.
Fidelity Loan and Trust Co. 6 per cent Bonds.
Jefferson R. R., 1st 5 per cent Bonds.
Delaware and Hudson R. R., Pa. div. 7 per cent Bonds.
Monmouth Co., N. J., 5 per cent School Bonds.
Central Trust Co. Stock.
American Exchange National Bank Stock. National Bank of Commerce Stock.

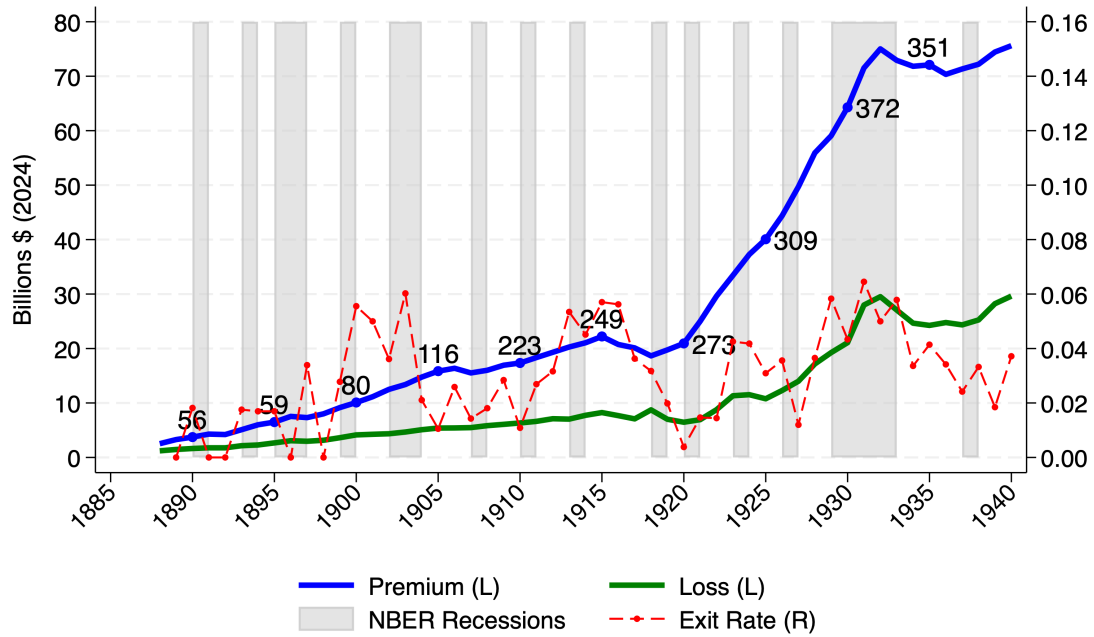
CHARLES A. TOWNSEND, President. **GEORGE E. IDE, Secretary.**
GEORGE H. RIPLEY, Vice-President. **WM. A. MARSHALL, Actuary.**

Figure II: Net holdings (%) of various financial instruments (1928)



Sources: Data for national and state banks, loan and trust, stock savings, and mutual banks come from the Office of the Comptroller of the Currency annual report. Data for life insurance come from the *Spectator Insurance Year Book* and the Proceedings of the Annual Meeting of the Association of Life Insurance Presidents.

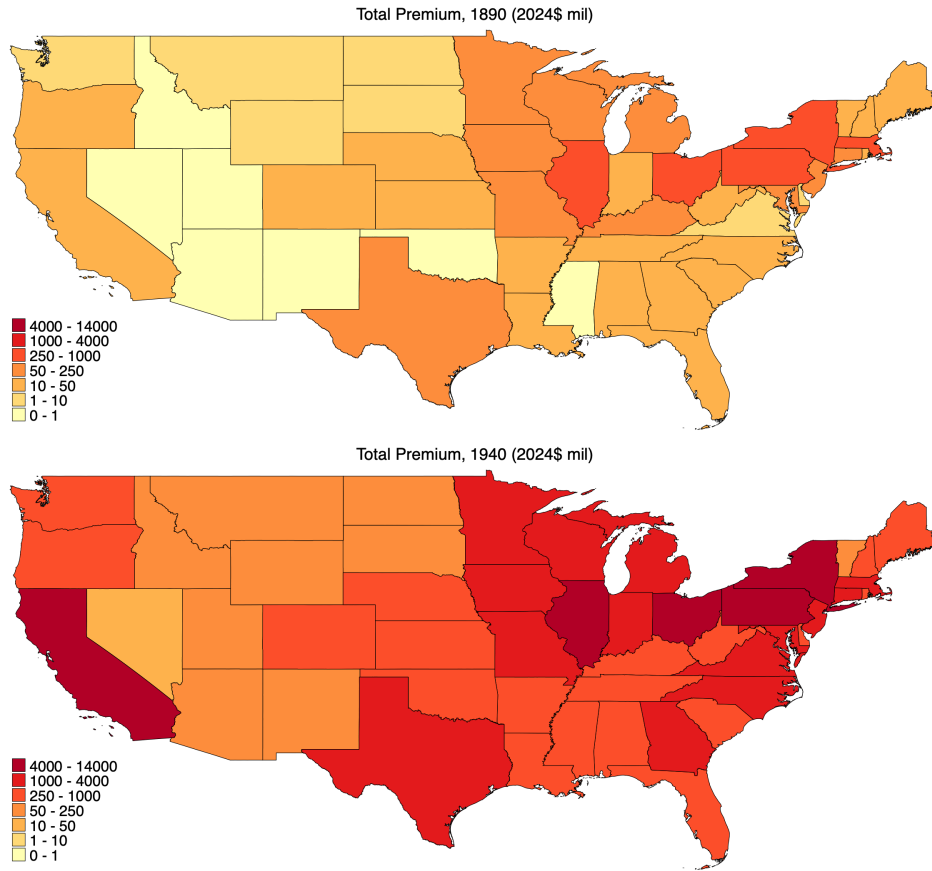
Figure III: Aggregate life insurance industry



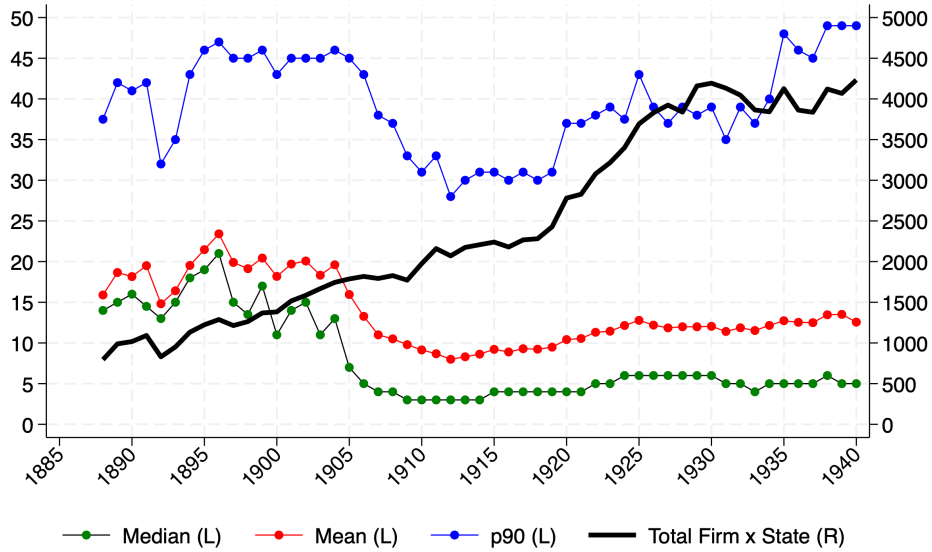
Note: Shaded years denote recessions from the NBER Business Cycle Dating Committee. The total number of firms is labeled every five years. The exit rate is the number of firms leaving the industry in a year, through reinsurance, merger, or acquisition, through outright failure, or through voluntary retirement, divided by the previous year's total number of firms (right y-axis); consolidation accounts for roughly 90 percent of classified exits. Aggregate premiums (blue) and losses (green) are deflated using the CPI to 2024 dollars (left y-axis). All series are from the *Insurance Year Book*.

Figure IV: Geography of life insurance

Panel A. Total premium collected by state, 1890 and 1940



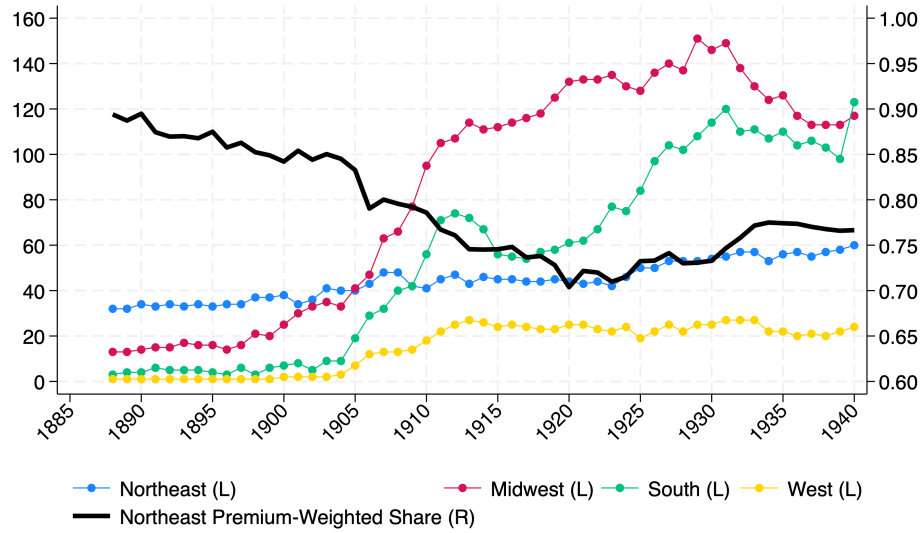
Panel B. Firm expansion across states



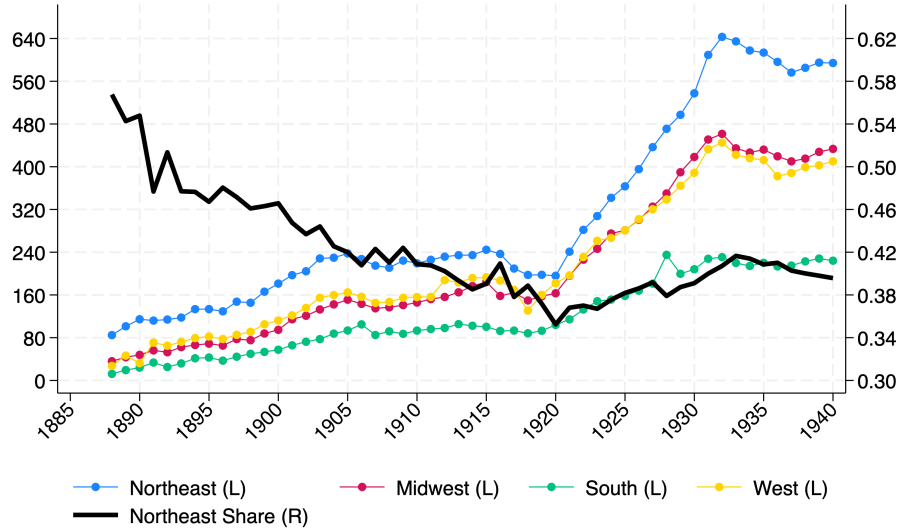
Sources: Author's calculations from the *Spectator Insurance Year Book*. Panel A shades states by total ordinary premium collected in 1890 (top) and 1940 (bottom), in 2024 dollars. Panel B shows the evolution of firms' geographic scope, measured by the number of states of operation of the median, unweighted mean, and 90th percentile of firms (left axis). The black line denotes the total number of firm-by-state observations in the *Insurance Year Book* (right axis).

Figure V: Firm domicile across regions

Panel A. Firm domicile



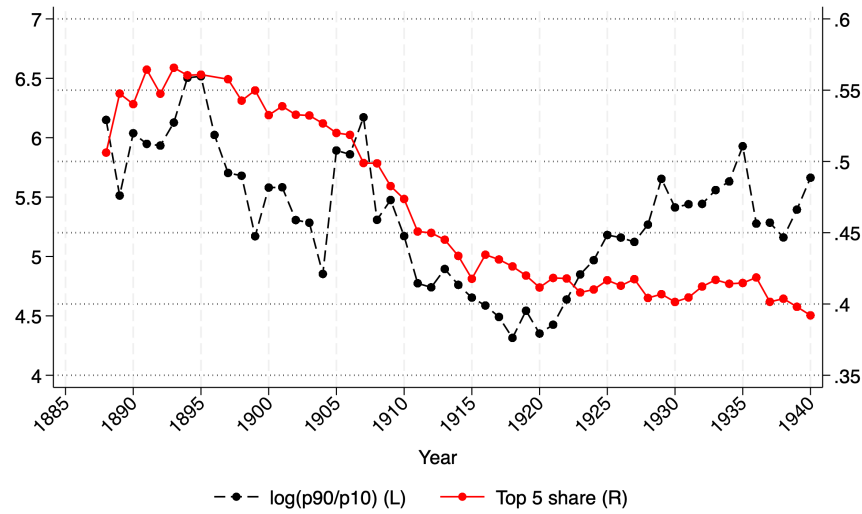
Panel B. Average per-capita premium



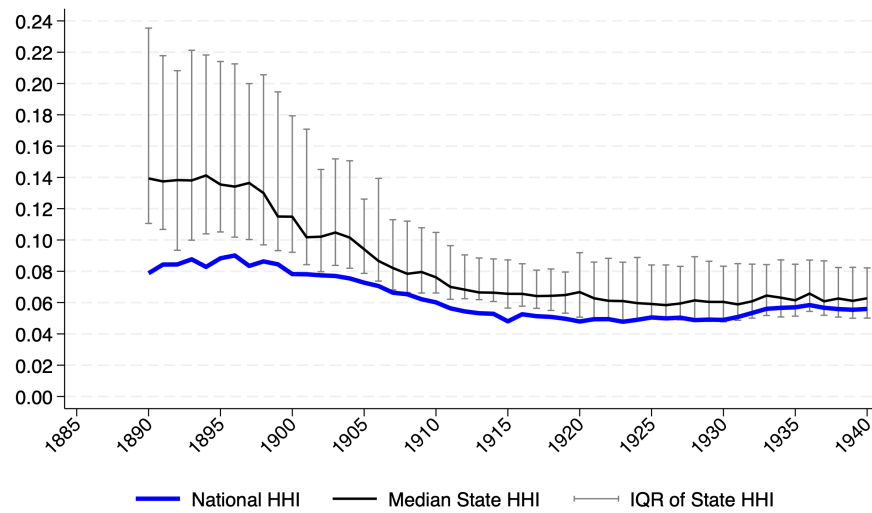
Note: Panel A shows the number of firms incorporated in each region over time (left y-axis). The black line denotes the share of aggregate premium collected by firms incorporated in the Northeast (right y-axis). Panel B plots the average per-capita premium collected in each region across time deflated to 2024 dollars. The solid black line plots the share of all premium collected in Northeast states.

Figure VI: Concentration of premium collection

Panel A. National concentration



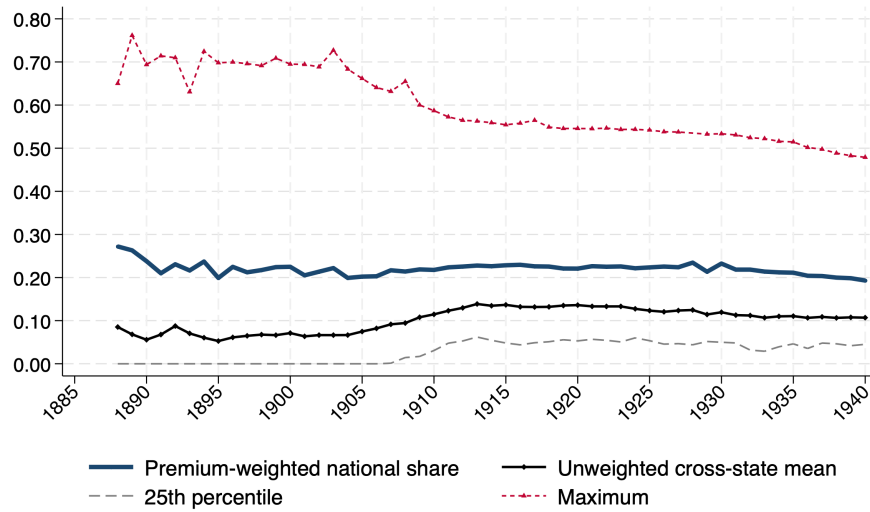
Panel B. State and national HHI



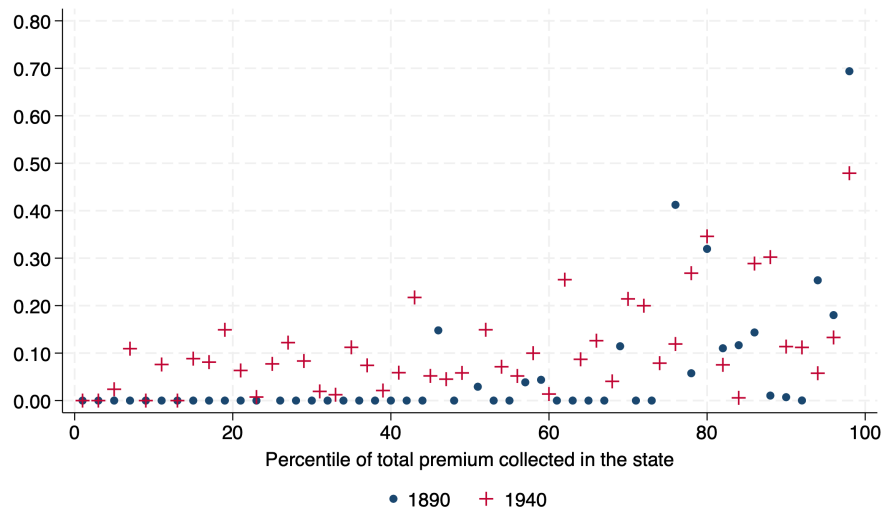
Note: Panel A plots the logarithm of the 90th/10th percentile ratio of firm-level total premium collected and the share of premium collected by the historically recognized "top five" firms (New York Life, Mutual, Metropolitan, Equitable, and Northwestern Mutual). Panel B plots the median, 25th, and 75th percentile of the state-level HHI, and the national HHI.

Figure VII: Premium share of in-state firms

Panel A. Cross-state distribution of in-state share

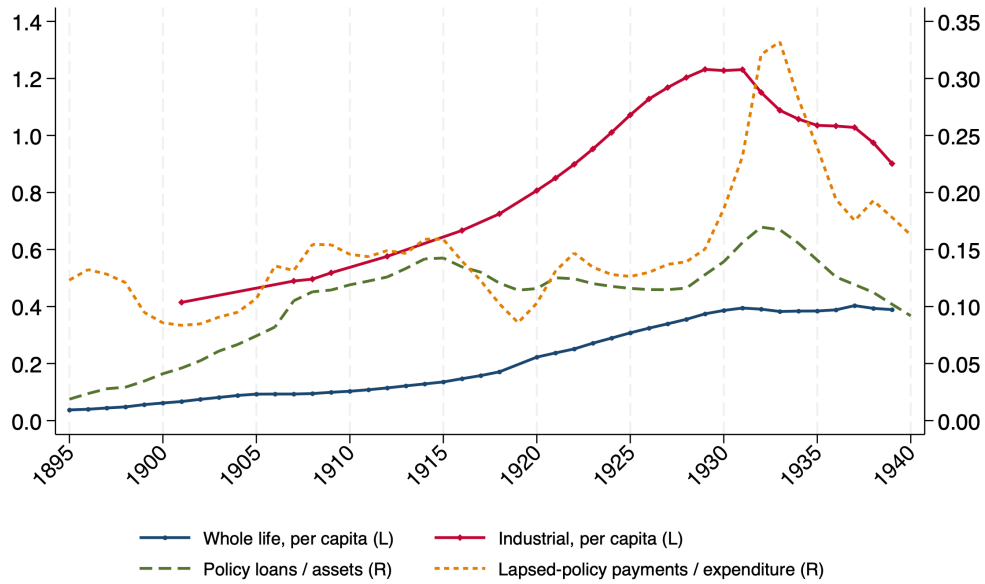


Panel B. In-state share and market size, 1890 and 1940



Note: Panel A plots the premium-weighted and unweighted means, 25th percentile, and maximum across states of the share of premium collected within each state by firms domiciled in that state (“in-state”). Panel B plots state-level in-state premium shares in 1890 (blue dots) and 1940 (red pluses) against the percentile of total premium collected in the state.

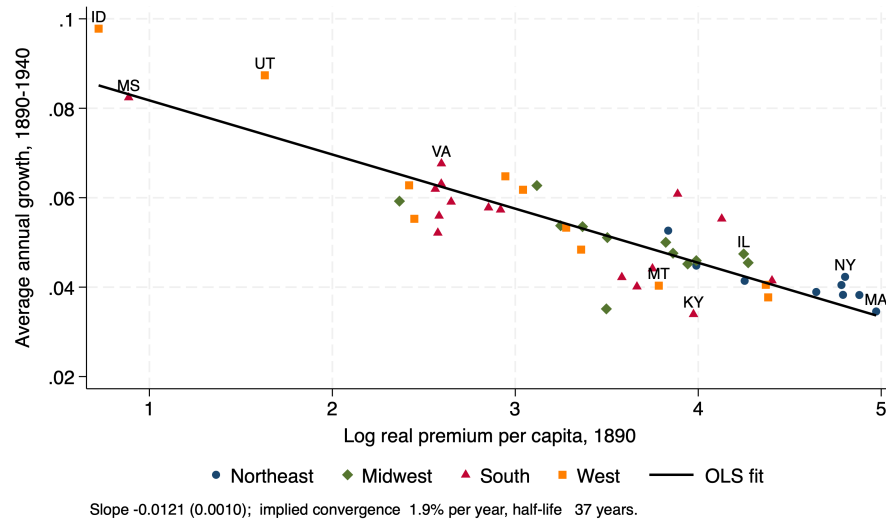
Figure VIII: Policies outstanding and drawdown in New York



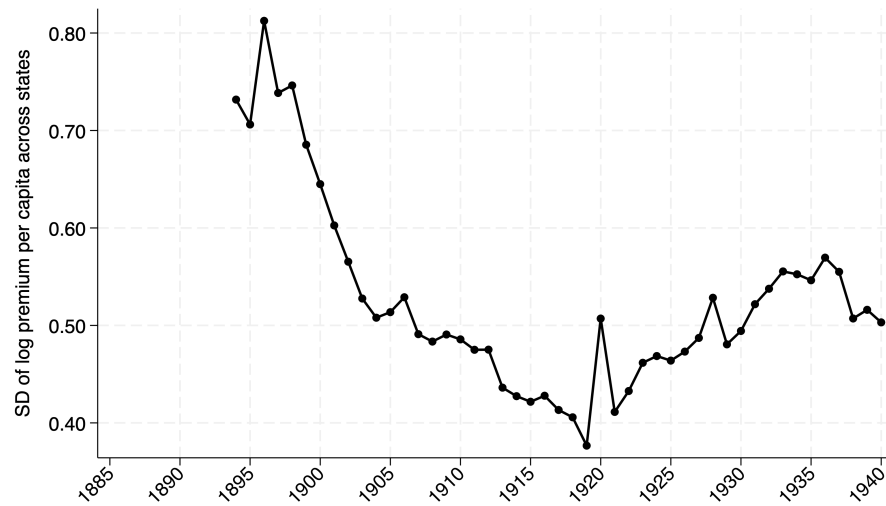
Note: The left axis plots the number of whole-life and industrial policies outstanding in New York per resident. The right axis plots policy loans as a share of total admitted assets, and lapsed-policy payments as a share of total expenditure. Both shares are industry aggregates, formed as a sum across firms operating in New York.

Figure IX: Convergence in per-capita participation, 1890–1940

Panel A. Growth against initial level



Panel B. Cross-state dispersion



Note: Panel A plots the average annual growth rate of real premium per capita between 1890 and 1940 against its initial level in logs, with markers distinguishing the four census regions and an ordinary-least-squares fit. The initial level is a three-year average centered on 1890 and the 1940 level is centered on 1939. The fitted line is column (1) of Table VI, and its slope, the implied annual rate of convergence, and the implied half-life are reported beneath the panel. Panel B plots the cross-state standard deviation of log real premium per capita in each year.

10 Tables

Table I: Summary statistics, 1880–1940

	Mean	SD	Median	25 pct	75 pct
Panel A. Firm $\times$ Year $\times$ State Premiums and Losses					
<i>(156,197 firm-state-years, 850 firms)</i>					
Premiums (2024 mil)	10.21	48.05	1.40	0.25	5.84
Losses paid (2024 mil)	3.57	16.48	0.38	0.04	1.89
Business written in:					
Northeast	0.15	0.36	0.00	0.00	0.00
Midwest	0.31	0.46	0.00	0.00	1.00
South	0.36	0.48	0.00	0.00	1.00
West	0.18	0.38	0.00	0.00	0.00
Insurer incorporated in:					
Northeast	0.47	0.50	0.00	0.00	1.00
Midwest	0.31	0.46	0.00	0.00	1.00
South	0.15	0.35	0.00	0.00	0.00
West	0.05	0.22	0.00	0.00	0.00
Outside the United States	0.02	0.13	0.00	0.00	0.00
Years the firm appears in the panel	38.43	15.77	43.00	26.00	53.00
Panel B. New York Firm $\times$ Year Accounting Data					
<i>Balance sheet (2,406 firm-years)</i>					
Total assets (2024 bil)	4.10	10.57	0.70	0.17	2.86
Share of assets held in:					
Stocks and bonds	0.41	0.21	0.39	0.27	0.54
Mortgages	0.32	0.19	0.32	0.18	0.45
Policy loans	0.09	0.08	0.08	0.01	0.14
Real estate	0.07	0.08	0.04	0.01	0.10
Cash	0.04	0.05	0.02	0.01	0.04
<i>Income statement</i>					
Total revenue (2024 bil)	0.89	2.33	0.16	0.05	0.65
Share of revenue from:					
Premiums	0.73	0.13	0.74	0.69	0.80
Investment income	0.19	0.08	0.20	0.15	0.24
Non-life premiums	0.01	0.02	0.00	0.00	0.02
Total expenditure (2024 bil)	0.64	1.74	0.11	0.04	0.45
Share of expenditure on:					
Claims	0.39	0.13	0.40	0.33	0.47
Dividends to policyholders	0.10	0.08	0.10	0.03	0.16
Lapsed policies	0.13	0.08	0.13	0.08	0.18
Salaries	0.10	0.09	0.07	0.05	0.12
Commissions	0.12	0.08	0.10	0.06	0.15

Note: Panel A is at the firm-state-year level and describes the digitized Spectator *Insurance Year Book* data as a whole. Panel B is at the firm-year level, from the Annual Report of the Superintendent of Insurance of the State of New York; firms reporting ordinary and industrial business separately are collapsed to the firm-year before the shares are formed. Regions are: Northeast—CT, ME, MA, NH, NJ, NY, PA, RI, VT; Midwest—IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI; South—AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV; West—AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, WY.

Table II: Average annual growth of the New York insurance market

	1880–1940	No recession	Recession	1929–33	1932–33
<i>Panel A. Real, 2024 dollars (% per year)</i>					
Assets	6.74	6.02	7.13	12.65	11.26
Liabilities	7.00	6.09	7.49	12.78	11.28
Revenue	6.80	6.41	7.01	9.00	5.50
<i>Panel B. Nominal (% per year)</i>					
Assets	7.21	7.22	7.20	5.02	2.57
Liabilities	7.48	7.30	7.58	5.16	2.60
Revenue	7.33	7.64	7.16	1.64	-2.74

Note: Each cell is the mean annual percent change in the row’s aggregate over the years in the column heading. Assets, liabilities, and revenue are from the balance-sheet, liabilities, and income-statement tables of the Annual Report of the Superintendent of Insurance of the State of New York. Panel A deflates by the consumer price index to 2024 dollars; Panel B is in nominal dollars. The recession column covers years with at least two quarters of peak-to-trough decline per the NBER Business Cycle Dating Committee.

Table III: Premium rates for Aetna policies at age 50 in 1893 and 1929

	1893	1929
Face amount giving equal real coverage	\$1,000	\$1,964
<i>Annual premium, dollars per \$1,000 of face amount</i>		
Continuous whole life	44.70	43.73
Ten-payment whole life	70.05	75.47
Twenty-payment whole life	49.37	52.05
Endowment, ten years	101.72	106.96
Endowment, twenty years	56.15	57.88
<i>Cash surrender value, dollars per \$1,000 of face amount</i>		
After three years	75.00	85.00
After ten years	328.00	359.00
<i>Cost in labor time</i>		
Average hourly wage in manufacturing	0.15	0.56
Hours of work per \$1,000 of 1893 coverage	296	153

Note: Premium rates and surrender values from the *Insurance Year Book*; the consumer price index from Williamson (MeasuringWorth); average hourly money earnings in payroll manufacturing industries from the NBER macrohistory database.

Table IV: Domestic incorporation and the local retention of premium

	(1)	(2)	(3)	(4)	(5)	(6)
Log(domestic insurers + 1)	0.102*** (0.021)	0.082*** (0.013)	0.081*** (0.014)	0.080*** (0.012)	0.078*** (0.016)	
Domestic insurers, none omitted:						
One						0.065*** (0.011)
Two						0.087*** (0.011)
Three to five						0.121*** (0.014)
Six to ten						0.152*** (0.018)
More than ten						0.220*** (0.037)
Log(premium per capita)			0.011 (0.007)	0.001 (0.009)	0.001 (0.011)	0.001 (0.009)
Log(manufacturing output per capita)				0.037** (0.016)	0.029* (0.016)	0.036** (0.017)
Urban share				-0.103 (0.097)	-0.059 (0.103)	-0.068 (0.090)
Log(out-of-state insurers)				0.008 (0.013)	-0.010 (0.014)	0.009 (0.012)
Domestic count enters as	Log	Log	Log	Log	Log	Dummies
State fixed effects	No	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	No	Yes
Region x year fixed effects	No	No	No	No	Yes	No
Mean of dependent variable	0.104	0.104	0.104	0.104	0.104	0.104
Observations	2,561	2,561	2,561	2,561	2,561	2,561
Adjusted R-squared	0.453	0.879	0.880	0.884	0.887	0.880

Note: The unit of observation is the state-year, -1940. The dependent variable is the share of premium that is collected by insurers domiciled in that state. Population, the urban share of population, and manufacturing output per capita are built from the decennial censuses and interpolated log-linearly between census years. Alaska and Hawaii are excluded throughout. Standard errors, in parentheses, are clustered by state. *, **, and *** denote significance at the 10, 5, and 1 percent levels.

Table V: Size and count decomposition of domestic insurers

<i>Panel A. Regional aggregates, 1888–1940</i>					
	In-state share (S)	Domestic share (C)	Relative size (R)	Domestic insurers	Percent with a domestic
Northeast	0.338	0.117	2.89	4.9	91.2
Midwest	0.115	0.108	1.07	7.1	90.8
South	0.148	0.069	2.13	3.6	74.0
West	0.092	0.033	2.81	1.4	52.8
<i>Panel B. Northeast minus South, in logs</i>					
	Gap in log share	Count margin	Size margin	Percent count	Percent size
1888–1899	2.371	2.158	0.214	91.0	9.0
1900–1909	1.970	1.139	0.831	57.8	42.2
1910–1919	1.046	0.476	0.570	45.5	54.5
1920–1929	0.767	0.386	0.382	50.3	49.7
1930–1940	0.704	0.212	0.492	30.1	69.9
Full panel	0.828	0.524	0.304	63.3	36.7
<i>Panel C. In-state share by region and decade</i>					
	Northeast	Midwest	South	West	All
1888–1899	0.391	0.112	0.036	0.047	0.243
1900–1909	0.366	0.097	0.051	0.065	0.214
1910–1919	0.345	0.137	0.121	0.128	0.223
1920–1929	0.338	0.133	0.157	0.106	0.220
1930–1940	0.330	0.102	0.163	0.081	0.209
Full panel	0.338	0.115	0.148	0.092	0.215
<i>Panel D. The two margins, Northeast and South</i>					
	Domestic share, NE	Domestic share, S	Relative size, NE	Relative size, S	Percent of S with a domestic
1888–1899	0.132	0.015	2.96	2.39	19.4
1900–1909	0.126	0.040	2.91	1.27	57.7
1910–1919	0.137	0.085	2.51	1.42	98.8
1920–1929	0.108	0.073	3.14	2.14	98.2
1930–1940	0.101	0.082	3.26	1.99	100.0
Full panel	0.117	0.069	2.89	2.13	74.0

Note: The unit of observation is the region-period, formed by aggregating over all state-years, 1888–1940. “Relative size” is the ratio of mean premium per domestic insurer to mean premium per insurer present. “Domestic insurers” in Panel A is the mean number per state-year. The final column of Panels A and D reports the percentage of state-years in which the region had at least one domestic insurer. Panel B decomposes the Northeast–South gap. Panel C reports the level of retention by region and decade, which separates a rising South from a falling Northeast. Alaska and Hawaii are excluded throughout, as are state-years in which no insurer wrote business.

Table VI: Convergence in per-capita participation, 1890–1940

	(1)	(2)	(3)	(4)
Log premium per capita, 1890	-0.012*** (0.0011)	-0.014*** (0.0015)	-0.014*** (0.0015)	-0.016*** (0.0013)
Growth of manufacturing output per capita		-0.185* (0.1006)	-0.172 (0.1213)	0.011 (0.0926)
Urban share, 1890				0.028*** (0.0062)
Region FE	No	No	Yes	No
Implied lambda (percent per year)	1.9	2.3	2.6	3.5
Implied half-life (years)	37	30	27	20
Observations	48	48	48	48
R-squared	0.772	0.786	0.801	0.869

Note: The unit of observation is the state. The dependent variable is the average annual growth rate of real premium per capita between 1890 and 1940, $(1/T) \ln(p_{1940}/p_{1890})$ with $T = 50$. The 1890 level is a three-year average centered on 1890 while the 1940 value is the three-year average centered on 1939. Premium includes ordinary, industrial, and group life insurance and is deflated to 2024 dollars, over state population. The implied annual rate of convergence λ solves $\beta = -(1 - e^{-\lambda T})/T$, and the half-life is $\ln 2/\lambda$, both are reported at the foot of the table. Growth of manufacturing output per capita is built from the decennial censuses over the same interval Alaska and Hawaii are excluded, as are states whose covariates would be extrapolated behind their first census. Heteroskedasticity-robust standard errors in parentheses. *, **, and *** denote significance at the 10, 5, and 1 percent levels.