



**ORDINARY LIVES: INSURANCE AND SAVINGS IN AMERICA, 1861 TO 1941**

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## Abstract

This paper uses archival insurance industry data from the period 1861 to 1941 to shed light on ordinary life insurance, which was the primary old-age savings mechanism of American households in the era before Social Security.

The paper found that:

- Ordinary life insurance was a tremendously popular savings vehicle among American households of the late 19th and early 20th centuries. It was prevalent across races and socioeconomic strata and made up a large fraction of the average household's savings.
- Ordinary life insurance – which paid lump sums or annuities to policyholders who survived to maturity or paid their beneficiaries if the policyholder died earlier – offered several attractive features as a savings and investment product, among them relatively low risk, reasonable returns, the ability to hedge against downturns, and the ability to borrow to smooth consumption.
- The similarities and differences between ordinary life policies and Social Security help explain why the latter eventually supplanted the former. One key difference with important policy and distributional implications is their interaction with inflation of the sort that eroded the value of ordinary life policies (whose returns were set in nominal terms at the beginning of an often 30-year contract) but that Social Security payments, which became more common in the mid-20th century, in part account for. The rise of peacetime inflation, along with other phenomena discussed in the paper, helps explain the transition from a voluntary and private means of old-age savings to a compulsory, nationalized one in the form of Social Security.
- Popular misconceptions stem from a failure to appreciate the popularity and centrality of ordinary life insurance as an old-age savings instrument in the 19th and early 20th centuries. Far from being unprepared for retirement, most heads of household in the United States had, in their ordinary life policies, an old-age savings plan in place that covered contingencies including disability, early demise, and deflationary shocks. The Great Depression did not wipe out their life savings and compel the creation of Social Security; rather, the inflation that began during World War II and continues to this day did that. This fact helps clarify the problem that Social Security initially tried to solve.

- Together, both initial occupational carve-outs in the SSA that excluded many Black households from participation and the high levels of Black participation in inflation-impacted ordinary life insurance policies imply that the transition from ordinary life insurance to Social Security may have produced disparities in old-age savings and in wealth more generally.

The policy implications of the findings are:

- It is useful to have a full understanding of the context in which the Social Security program was created by studying the salience of ordinary life insurance as a retirement savings vehicle in the period leading up to Social Security's adoption.
- One particular feature that Social Security was better positioned to provide was inflation protection (originally through ad hoc benefit increases and later through the adoption of the cost of living adjustment), as ordinary life insurance was developed and thrived during a long period of stable prices.

## Introduction

Social Security is the way that ordinary individuals save for retirement today, with most elderly Americans getting most of their retirement income from this source.<sup>1</sup> The other principal sources of income for retirees – savings and pensions – accrue more to college-educated individuals who have had stable, long, and lucrative careers than to those less educated or less fortunate. Technically termed Old Age, Survivors, and Disability Insurance (OASDI), Social Security promises pensions to the elderly, payments to the survivors (spouses, children, and dependent parents) of workers who paid into the program, and payments to individuals whose disabilities limit or prevent them from working.<sup>2</sup> Given its importance for the wealth and well-being of the preponderance of the population, Social Security has broad economic, social, and political impacts. It alleviates poverty among the elderly, disabled, and unfortunate. It influences rates of savings, investment, economic growth, and the distribution of wealth. It can be a pivotal political issue.<sup>3</sup>

Understanding Social Security's impact on society requires an understanding of the institutions it replaced. OASDI was created during the Great Depression of the 1930s and began paying regular benefits in the 1940s. Before then, most retirees earned little from savings in banks, bonds, or stocks. Few had pensions. Few firms, unions, and state or local governments provided retirement assistance. Investment wealth was concentrated at the top of the income distribution (Ezekiel 1937). What, then, did ordinary people do when they retired? How did they care for their dependents or build an estate? What did people do if they were disabled? The current academic literature lacks answers to those questions. It does not explain how most families saved for retirement in the two generations before the creation of Social Security, a

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<sup>1</sup> In 2013, more than 90 percent of Americans who were over age 60 and working less than 30 hours per week received income from Social Security. For more than 40 percent of those Americans, Social Security was the sole source of retirement income (Bond and Porell 2020). In 2015, half of Americans age 65 or older lived in households receiving at least half of their income from Social Security. From 1976 to 2006, “the average share of income that elderly received from Social Security was always substantial (between 66 percent and 84 percent in any given year), particularly for households in the bottom half of the income distribution (Dushi, Iams, and Trenkamp 2017).”

<sup>2</sup> In 2023, the SSA reported that payments to survivors amounted to 11.2 percent of total benefits, payments to disabled amounted to 11.0 percent of benefits, and payments to retired workers and their dependents amounted to 77.2 percent of total benefits (Social Security Administration 2024).

<sup>3</sup> Since the inception of the program during the Great Depression, political parties and candidates – particularly those seeking federal office – must take positions that satisfy their constituents' interests concerning the existence of, taxes for, and payments from the SSA.

period from about 1895 to 1940 spanning the Progressive Era, the Roaring 20s, and the Great Depression.

This essay fills that gap by elucidating the main savings method of ordinary households – particularly lower- and middle-class households – during the first half of the 20th century. That savings vehicle was ordinary life insurance.<sup>4</sup> Ordinary life policies, the most common life contract (measured in dollars of insurance in force) was a savings vehicle that paid a specified sum to the insured if they survived to a designated age, accumulated value throughout its term that the insured could access whenever they desired, and paid the specified sum to a beneficiary if the insured died before the contract matured.

Ordinary life insurance policies were designed to protect individuals against life's key uncertainty: how long it would last. Dying young limited an individual's lifetime earnings, preventing heads of households from supporting their dependents, typically a spouse and children but often also elderly parents and younger siblings. Dying old increased an individual's lifetime expenses and risked poverty in old age when the ravages of time prevented people from earning enough to pay for the lifestyles they desired. Ordinary life insurance policies protected individuals against both contingencies by combining insurance and savings in a single financial instrument (Geren 1943 p. 33).

Our elucidation begins by demonstrating the popularity of ordinary life insurance. From 1900 to 1940, aggregate savings via legal reserve life insurance in force – which issued all ordinary life policies – rose from 50 percent to 200 percent of annual national income. Savings poured into legal reserve companies during the 1920s, when savings via insurance roughly equaled savings via other financial intermediates, including holdings of equity and bonds, deposits in commercial banks, and shares in savings banks and building and loans (B&Ls). Savings via legal reserve companies continued at about this pace during the 1930s, while savings declined substantially at most other financial intermediaries. Insurance in force per capita rose gradually relative to per capita income, surpassing it in the early 1920s. When Social Security began paying regular benefits in 1941, ordinary insurance in force per capita exceeded \$800, which was more than 50 percent higher than annual per capita income that averaged about \$500.

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<sup>4</sup> Scholars seem to have forgotten this fact because ordinary life insurance differs from term and group life insurance, the most common life contracts today, which pay out only if the insured person perishes, not if they survive.

Our elucidation continues by describing features common to all ordinary life contracts and scrutinizing an example. Key features included (a) fixed periodic premia, (b) payout of a fixed sum to the insured if the insured survives to a specified age or to beneficiaries if the insured dies before that age, (c) accumulation of equity value to which the insured retained ownership even if their payments of premia lapsed, and (d) the ability to borrow up to the contract's equity value at a specified low interest rate. The example is Metropolitan Life's (MetLife's) ordinary life insurance policy, which was the most popular ordinary life contract issued by the most popular legal reserve insurer in the first half of the 20th century. It may have been one of the most popular investment contracts of all times, since during each year of the 1930s, about 1 percent of the national income of the United States was invested via this policy issued by this intermediary.

We then describe the attractions of ordinary life policies to ordinary households during their heyday in the two generations before the creation of Social Security. When compared to other forms of savings that lower- and middle-income households could access, ordinary life policies had good returns with low variance. Accordingly, they were especially popular with these socioeconomically vulnerable groups.<sup>5</sup> Ordinary life policies protected households against a range of risks. The most pressing was uncertain longevity. The policies protected against the early demise of a family's breadwinner or against longevity that might lead to poverty after retirement. The policies also protected against a range of other risks, including (a) deflation, a perennial problem afflicting America's farmers and laborers, (b) taxation, including both estate and income taxes, which rose rapidly during the Progressive Era, and (c) overinvestment in specific assets, since insurance companies provided ordinary families with their only opportunity to invest in a wide array of bonds, both corporate and government, and mortgages, both residential and commercial. In this discussion, we highlight the role that race-specific differences in ordinary life insurance participation, in tandem with the broader economic and policy environment of the early to mid-20th century, may play in racial wealth disparities.

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<sup>5</sup> Historically, life insurance was particularly popular among Black households, who tended to have lower incomes and face greater barriers to financial access (e.g., Arthi et al. 2024). To the extent that Black households tended to hold a greater share of their savings in life insurance than the average household, they also were more exposed to phenomena – such as inflation – that eroded nominal returns.

## **Popularity of Ordinary Life**

*Underwriters Issue Insurance.* The verb “to underwrite” comes from Old English “underwritan,” which means “to write at the foot of.” Its modern sense of issuing insurance comes from the practice of signing marine insurance contracts at the foot of the document. Since at least the 1620s, the term “underwriter” has meant someone issuing an insurance contract.

Between the Civil War and World War II, four principal types of life insurance underwriters operated in the United States. Figure 1 depicts insurance underwritten by those organizations over time. Legal reserve underwriters insured individuals by issuing contracts and accumulating reserves that they used to pay obligations to the people they insured. Legal reserve corporations issued all life insurance in the United States before the 1860s. In the latter half of the 19th century, fraternal and assessment underwriters began operations. Fraternal underwriters – such as the Masons or the Oddfellows – provided death and burial benefits as part of a package of services provided to members of their fraternal organizations. Assessment organizations paid death and burial benefits by assessing members of the organizations a fee to pay benefits to members who perished at any point in time. Neither fraternal nor assessment underwriters accumulated reserves sufficient to cover their obligations. Their popularity peaked near the end of the 19th century, when they issued nearly half of all life insurance underwritten in the United States (see Figure 2). Their popularity waned rapidly, however, as their members aged and the costs of their insurance increased, which impeded the recruitment of new members and prevented them from covering the policies that they issued. While many men joined these organizations in the decades after the Civil War, most – in the end – did not get the benefits they anticipated.

The U.S. government began underwriting life insurance after the United States declared war on Germany in 1917. Most private life insurance contracts did not cover deaths of military members serving during war. The federal government filled this void, issuing more than 4 million policies to eligible individuals through the War Risk Insurance program. Individuals could renew these policies even after completing military service. The whole life policies remained in force as long as the insured paid premia and annuitants remained alive, so the federal government continued to serve a small number of these policies throughout the 20th century.



Legal reserve underwriters issued the preponderance of the life insurance policies issued over the entire period. Figure 3 illustrates their expansion; they underwrote a few billion dollars in policies in the 19th century but more than \$100 billion in policies by the end of the 1930s. Legal reserve companies wrote three types of insurance. The preponderance of their policies by value were ordinary life, which is the focus of this paper. The majority by number (but not value since their average face value was smaller) were industrial life, which we discuss in separate essay. The popularity of industrial life, which was introduced in the 1870s, grew gradually over the next 70 years. A small fraction was group life, which was introduced in 1911 and spread slowly. It remained rare in the era that we analyze, but now it is the dominant form of life insurance in the United States. Figure 4 illustrates the share of these types by dollar value over time.

The growth of insurance in force in nominal dollars represents a real increase in insurance spending. The United States operated on a gold standard for much of the 19th century. The money supply grew slowly. Prices gradually declined during peacetime, and prices rose during wars. In the long run, the price level changed little, so nominal increases were real increases.

National income rose as America expanded across the continent and the economy industrialized, but insurance grew quicker than income (see Figure 5). Insurance in force surpassed one-quarter of national income around the time of the Civil War (1861–1865). It surpassed one-half of national income around the time of the Spanish-American War (1898). It surpassed national income a few years after World War I (1914–1918). It grew rapidly during the 1920s when households invested increasingly large sums in life insurance and continued to grow relative to the economy during the Great Depression when national income declined dramatically.

Income in the United States not only grew on aggregate but also per person. Figure 6 depicts the rise in life insurance in force per capita. During the 19th century, life insurance per capita increased at a rate slightly higher than per capita income. During the 20th century, it grew at a much faster rate. Life insurance per capita exceeded income per capita in the 1920s and was nearly double income per capita in the depths of the Great Depression.

The stock of life insurance in force is a potential measure of savings via insurance, but individuals' payments for insurance were spread over many years and often their entire adult

lives – so a better measure is payments for these policies. Figure 7 depicts these flows by plotting the sum of all premia collected by legal reserve insurers for life insurance. These payments rose immediately after the Civil War, shrank during the 1870s (when fraternal and assessment insurance initially expanded), rose steadily through the late 19th century, and increased exponentially in the 20th century. Savings via insurance more than tripled during the Roaring 20s, jumping from about \$1 billion per year around 1919 to more than \$3 billion per year in 1929, and plateaued during the Great Depression.

Dividing annual aggregate premium payments by annual national income yields the aggregate rate of savings via legal life insurance corporations, which is plotted in Figure 8. Households saved about 1 percent of national income each year via insurance in the mid-19th century. Insurance savings doubled to 2 percent of national income by the turn of the 20th century, rose rapidly during the Roaring 20s, surpassed 6 percent by the end of the decade, and peaked at 7 percent during the depths of the Great Depression.

During the Depression, the federal government conducted the Consumer Purchases Study, which provides clear evidence of who saved via which institutions. Geren (1943) distilled this information, which is depicted in Figure 9. The solid line indicates the fraction of incomes that households at each income level saved each year via insurance. Households at all income levels, on average, saved via insurance. Those with incomes below the median (~\$1,100 per year) saved 2 percent to 3 percent of their income in life insurance policies. Those with incomes above the median saved 4 percent to 5 percent of their income via life insurance. The fraction of income saved via insurance peaked at annual incomes around \$10,000 per year and diminished at higher incomes. Very high-income earners saved a “minute percentage” of their incomes via insurance since their accumulated wealth secured “to him the purpose for which the small income receiver seeks to secure through life insurance” (Geren 1943 p. 38). The dashed line indicates the fraction of incomes that households saved in all ways (e.g., insurance, bank accounts, B&L shares, bond purchases, stock purchases). The difference between these two lines indicates savings via all sources other than insurance. Savings was negative on average for individuals with annual incomes less than \$2,500 because households with incomes below that amount needed to consume their savings or borrow if possible during the depths of the Depression.

The trajectories of savings via the principal financial intermediaries in the 1920s and 1930s is illustrated in Figure 10 and Table 1. During the Roaring 20s, savings accumulated in three principal repositories: (a) depositories, including commercial banks and B&Ls, (b) legal reserve life insurance corporations, and (c) nonfinancial corporations. Savings in each of these groups equaled about \$15 billion during the decade. These end-of-year figures obscure the equity boom in the late 1920s since the rapid rise in corporate wealth in 1928 and early 1929 was offset by the stock market crash in the fall and dramatic decline in equity values by the end of 1929. During the 1930s, savings via life insurance accelerated, while savings via other sources declined. Most B&Ls became frozen, with members unable to convert shares to cash and market values for the shares falling by 50 percent. Many banks failed, and depositors drew down balances in the banks that remained open. Stock prices (as measured by the Dow Jones Average) declined by more than 95 percent. Thousands of firms failed, and the value of their shares evaporated. Life insurers, however, remained liquid, solvent, and safe and continued to pay interest, typically of 3.5 percent, so individuals increased savings in life insurers by large amounts.

The patterns reveal the importance of life insurance as a means of savings. Ordinary life insurance policies were the principal savings mechanism for American households in the early 20th century. Their popularity increased during the Depression of the 1890s and peaked during the Depression of the 1930s. Savings via life insurance was particularly important for households near and below median income, who saved more via insurance than through other means. Understanding the reasons for these patterns requires us to understand the nature of ordinary life insurance policies.

### **What Was Ordinary Life?**

Ordinary life policies had several salient features. The first was an irrevocable and incontestable promise by an insurance company to pay a specified sum upon death of the insured to a named beneficiary in consideration of an application and periodic payments of premia. This sum was called the face value of the policy because it was prominently printed on the first page of the application and the contract documents. The promise was an absolute obligation of the corporation. As long as the insured paid premia on time, the corporation reserved no rights to cancel, contest, or exit the agreement after accepting the application and verifying the

information in it. The contract gave the company a span of time, typically one year but sometimes two years, after it issued the policy to verify information supplied by the applicant. If the corporation could prove that information was false and material to the terms of the agreement, it could cancel the contract and return the premia paid. The key pieces of information the company would seek to verify were the age and occupation of the insured since prices were conditioned on this information. After the verification period, the policy became incontestable. The corporation had no legal right to contest the contract for any reason, including misinformation supplied by the applicant. Upon receiving documentation of the death of the insured, the corporation had to promptly pay as promised.

The death could occur anywhere, anytime, for any reason, and in any circumstance with two potential exceptions that had to be explicitly and prominently stated in the application. The promise might not cover death by suicide if it occurred before the policy became incontestable, but in this case, most policies called for premia paid to be returned in full. The promise also might not cover death due to military service in time of war. Most policies excluded this coverage; a small set of policies covered these deaths if an applicant requested this provision and paid additional (and usually substantial) fees.

The person who purchased an ordinary life policy had to have an insurable interest (Owen 1942 p. 306). According to insurance laws of all states, individuals had insurable interests in their own lives and the lives of their family members whom they supported or who depended on them for support. Businesses had insurable interests in the lives of key employees but only up to the value of the income that might be lost by their demise. Creditors had an insurable interest in the lives of debtors but only up to the value of their outstanding debts. Rules concerning insurable interests ensured that purchasers of policies had a stake in the survival of the insured. Policyholders did not gamble on the lives of individuals with whom they had no familial or financial connection.

The second key feature of an ordinary life policy was a fixed premium payable on a set schedule. The initial premium was due when the contract was signed. Future premia were due annually on the anniversary of the signing or more frequently if the insured selected quarterly or monthly payment options. Standard policies called for equal payments spread over the life of the contract. Options allowed individuals to increase the size of their payments and complete them over an interval such as 10 or 20 years. This option allowed individuals to complete payments

during peak earning years and not be burdened making payments as they advanced in age. A period of grace (usually one month) kept the contract in force if payment was not received on the due date. After that, the contract would lapse but could be reinstated if the insured individual paid all past due premia with interest.<sup>6</sup>

While the corporations' obligations under the contracts were contingent on receipt of premia, they had no claim to payments from the insured. Insurance corporations could not sue individuals who fell behind on payments to compel them to pay. Insurance contracts were one-sided absolute obligations. Individuals entered the agreements voluntarily and could exit them at any time; insurance companies could not.

Since the premium was fixed and prominently stated on the contract, insured individuals knew the maximum price that they would pay over the life of the contract. The maximum was the stipulated stream of premium payments. The price could be lower for two reasons. All insurance companies offered participating policies that paid dividends based on corporations' profits. Dividend payments were typically a function of a firm's profits and past premia paid by the insured individual, who could use the dividend to lower their premium due or accept the dividend as cash. The insured also could use the dividend to purchase additional insurance or leave it invested with the company with its value compounding at a guaranteed rate (typically 3.5 percent per year in the late 19th and early 20th centuries). Dividend payments rose if an insurer's investments yielded returns that were higher than anticipated or if its costs were lower than expected. Dividend payments could be substantial; for example, in typical years, Aetna Life's dividend payments to participating policyholders exceeded 3 percent of premium payments.<sup>7</sup>

The price also could be lower if an insured individual received a rebate from their insurance agent. Agents received commissions for selling new policies to clients, for servicing

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<sup>6</sup> Subsequent payments were on a schedule determined at the date of signing. The most common arrangement was premia due annually on the anniversary of the signing. Other possibilities included biannual, quarterly, or monthly payments. Payments were typically due at the headquarters of the insurance company and submitted via check, wire transfer, or in person. Individuals also could choose to make a limited number of payments, such as 10, 20, or 30 annual payments, which was often chosen by those who wanted to complete payments during their peak earning years. The insured chose the structure of payments before commencing the contract. The company typically structured payment plans so that their present values (determined using the company's expected return on investments) were identical. This equality left companies indifferent over individuals' payment choices.

<sup>7</sup> In 1922, for example, Aetna Life collected \$55,934,645.05 in premia and paid \$1,856,141.57 in dividends to participating policyholders. In other words, 3.32 percent ( $=1,856,141/55,934,645$ ) of premia in that year were returned as dividends (Aetna Life 1923).

existing policies, and for renewing older policies that matured. Agents could rebate portions of their commissions to clients and may have done so often, although data on this issue are limited. The extent of the practice was difficult for firms to determine at the time, so the frequency and size of rebates remains elusive today.

A third key feature of an ordinary life policy was a maturity date on which the insurer paid the death benefit in full to the insured rather than their beneficiary. The contract ended, and the insurance was no longer in force. The standard maturity date was the first anniversary of the policy after the insured's 95th birthday. Individuals could choose to have their policies mature at earlier ages. Policies with maturity dates before age 95 were termed "endowment policies." Popular choices were endowment at age 65 or 75, and these contracts typically would be referred to as endowment at that specified age. Individuals also could choose contracts that matured after specified intervals. Popular choices were maturity after 10 years and 20 years, and these policies typically would be termed endowment after the stated number of years. Features of endowment policies were identical to those of other ordinary life policies, with the contracts having the same provisions. The principal difference was the cost; since endowments matured earlier, their premia were higher.

The standard maturity age of 95 originated with the actuarial calculations underlying ordinary life policies in the mid-19th century. Before 1858, American insurance companies based their calculations on mortality tables created by English life insurers. These tables, obviously, reflected death rates of English individuals and not those of healthier and longer-lived Americans. In 1858, the actuary for Mutual Life, Sheppard Homas, who had trained in mathematics at Harvard, compiled a new mortality table based on the experience of his company and one other, Mutual Benefit. His *American Experience Table of Mortality* became the standard for actuarial calculations throughout the United States. It indicated that all individuals who were alive at age 95 would die before turning 96. Actuaries, therefore, treated age 95 as the end of life. Insurers incorporated this presumption into their plans by treating all individuals who lived to age 95 as if they would die that year and paying them their death benefit in full. They had beaten the odds.

Insurers and their clients quickly realized that many people wanted access to the wealth they had accumulated at a younger age, such as 65, when their earning ability waned or when they desired to retire. By allowing individuals to choose the date when their policies matured,

insurers created policies that insured them not against the certainties of life or death but against the uncertainty of when an individual would make the transition from one state to another. A policy with a later maturity date primarily protected the insured's dependents since it yielded a higher return if the insured died earlier and accumulated savings, slowly yielding fewer funds for retirement. A policy with an earlier maturity date emphasized saving for retirement since it accumulated value faster and was more likely to mature and pay out its face value while the insured remained alive.

The fourth key feature of an ordinary life contract was the reserve, which represented the equity that the insured accumulated in their policy. It was their property and was not forfeited if it lapsed or if they missed a payment. The reserve was the sum of past premium payments compounded annually at an interest rate specified in the contract minus expenses. The standard interest rate in the era that we analyze was 3.5 percent per annum. The value of the reserve over the life of the contract was indicated in tables attached to the policy application. Equity that was accumulated according to a schedule was based in part on actuarial assumptions (e.g., mortality rates and returns on investments), in part on legal requirements (e.g., state laws concerning minimum payouts and maximum fees), and in part on corporate policies (e.g., promising higher payouts to attract more customers). The formula for calculating equity presumed that a policy's initial premium payments covered the costs of issuing the insurance, while subsequent payments accumulated value at a constant nominal rate. While parameters varied across corporations, time, and states, in the most common case, the premia paid in the initial year covered costs. Before an individual purchased a policy, they could examine the tables and determine the equity that they would have in the policy at any point in the future. They would retain copies of the tables so that they could know the value of their contract and the options open to them at any time.

Insured individuals could access equity in their policies at any time by exercising one of four options that existed in all ordinary life contracts:

1. Requesting a cash payout equal to the equity value of the contract. Individuals who did so would surrender their policies to the company, which ended the insurance agreements.
2. Converting the current contract to a paid-up contract with a lower death benefit and lower equity value that required no additional payments.

3. Converting the current contract to a term life policy that paid a death benefit to beneficiaries if the insured died within a defined interval and that required no additional payments.
4. Borrowing funds from the insurance company at a set interest rate (typically 5 percent or 6 percent) up to the cash value of the contract. The cash value of the contract served as security for the loan, and all other features of the contract remained in place.

These options were standard in the industry and required by law in most states after the 1870s (Owen 1942 pp. 310–5). Their incorporation into law and contract owed a great debt to the most famous man in the insurance industry, Elizur Wright.

A fifth feature of ordinary life contracts was assignability. The insured or their beneficiary could assign their claims to payments under the contract to third parties. Assignments often were used to collateralize or guarantee repayment of loans. An insured father, for example, might assign benefits from a policy to a mortgage company guaranteeing repayment of the home loan in the event of his death. The lender would lower the interest rate on the loan in return for this guarantee. In this way, a father could accumulate equity in an insurance policy if he survived and guarantee that his wife and children could remain in their home if he died.

A final feature was underwriting standards. Applicants underwent medical exams and answered screening questionnaires. Key questions included age, occupation, medical history, family history, hobbies, personal habits, and alcohol consumption. Agents who solicited applications were asked to ascertain the accuracy of this information and to add their own insights. Agents forwarded the information to underwriters at the corporate headquarters, who scrutinized the records to determine if the company should insure the applicant and, if so, under what policy. The process was designed to weed out bad risks, limit adverse selection, and, if possible, induce favorable selection. Adverse selection occurred when applicants with higher mortality elected to purchase insurance policies that they thought were good deals, while applicants with lower mortality declined to purchase those policies since they thought they were not a good value. Favorable selection was the opposite, with applicants accepting insurance disproportionately living longer than average. After considering the available information, underwriters might accept an application, allowing the applicant to purchase the insurance plan that they proposed, or decline the application, in which case they might offer alternatives or



decline to offer insurance at all. Underwriters denied applications from individuals with riskier occupations, poorer health, and lower life expectancies than was typical for the group insured under a particular plan.

The screening process enabled insurance corporations to appropriately segregate individuals with different characteristics, particularly different mortality rates and anticipated longevity, into different groups and price insurance for each group. All individuals with the same policy taken out at the same age had to pay the same premium. Different policies, however, could – and typically did – have different premia and different rates of return because the loading (i.e., fixed charge for expenses) and surrender charges (i.e., charges to offset adverse selection induced by policy options) could – and usually did – differ across policies.

### **Methodology and Findings: An Ordinary Example**

Ordinary life insurance contracts were complex. A standard policy ran about 16 pages with 7,200 words and 8 tables that detailed values at different ages resulting from different payment plans and policy options (e.g., Flitcraft 1915 pp. 517–32). Typically, individuals learned about ordinary life policies when they visited agents' offices or when agents visited their homes. Training materials for MetLife taught agents to spread discussions of policies over multiple meetings during which they introduced the basic concepts, discussed policy options, explained the benefits of insurance, and finally worked through the details of the policy that an applicant planned to purchase. This section describes MetLife's most popular ordinary insurance policy. We take the details from Flitcraft's Insurance Agent's Manual (Flitcraft 1915 pp. 517–32) and discuss issues as in MetLife's guidelines for its agents.

MetLife was the most popular insurer in the first half of the 20th century. MetLife was founded in 1868 and mutualized in 1915 (Owen 1942 p. 759). On December 31, 1937, it had \$4.7 billion in assets, which was 18 percent of the assets of all insurance companies in the United States (Temporary National Economic Committee 1939). It had \$22.6 billion of life insurance in force, which was more than 20 percent of the \$110.1 billion of life insurance in force in the United States on that date (Owen 1942 pp. 760–68). Our example is, therefore, the most popular policy issued by the most popular insurer from the era of insurance's peak popularity.

Like all ordinary life policies, MetLife's contract came into force on the date the insured signed the contract and submitted their initial payment. The cost of the contract depended on the payout and the age of the insured when it was purchased. In our example, the death benefit is \$5,000. The insured was an employed White man who passed the medical screening, worked in a white-collar profession without unusual risks, and entered the contract at age 35. The cost of the policy was \$107 per year. The contract remained in force until the insured chose to end the agreement or until the company completed the payments that it was obliged to make to the insured or their beneficiary. These payments depended on contingencies that arose and choices that were made by the insured (and possibly their beneficiary) along the way.

The contract paid different amounts in different contingencies based on the choices of the insured. The company calculated these payouts using the standard assumption of 3.5 percent annual return on policy reserves, which were the accumulated value of the funds the insured paid for the policy minus loading (i.e., the cost of issuing and managing the policy, usually set as a fraction of the first year's premium) and the surrender charge (i.e., the cost of finding someone to repay an individual who departed an insurance pool or, in other words, a charge to offset adverse selection due to policy choices). The company described payouts based on choices and contingencies in a series of tables spanning multiple pages. We condense these tables into Figures 11(a) to (e).

Figure 11 (a) illustrates the potential payout from the basic policy. The horizontal axis indicates the years that the policy has been in force. Adding 35 to the x-axis value yields the age of the insured. The blue line at \$5,000 indicates the amount paid to the beneficiary if the insured died in that year. The death benefit vested at the inception of the policy, so the blue line begins at the y-axis and continues until the death benefit and cash value of the policy converge 60 years later. At that point, the insurance company paid the policy's full value to the insured, and the policy terminated.

The orange line indicates the policy's cash value and begins in the policy's third year. Before then, the loading and surrender charges exceeded the accumulated value of the payments made by the insured, so the policy could not be converted to cash. After that, the policy's cash value grew every year. The growth in this figure looks nearly linear, but the line has a faint s-shape, with annual increases in value accelerating in early years and slowing in later years. Cash value's growth is nonlinear for three reasons. One is the compounding of interest, which

steepens the slope of the cash value curve over time. Two is the loading, which is a fixed cost subtracted from the compounded value. Three is the surrender charge, which declines during the initial years of the policy but rises in later years. Initially, the declining surrender charge increases the slope of the cash value curve. Eventually, the rising surrender charge more than offsets the compounding of interest.<sup>8</sup>

The cash value is the key to understanding the savings aspects of MetLife's policy and the options that policyholders had during the life of the contract. A policyholder could, at any time, surrender their policy and redeem its cash value. Figure 11 (e) depicts the impact of this option when taken in the 20th year of our example. The insured received a cash value payout of \$1,553. They surrendered their policy, and their life insurance was no longer in force.

Figure 11 (d) depicts a more popular option: the policy loan. The insured received the policy's cash value of \$1,553, but the funds came as a loan at 6 percent annual interest, and the policy continued in force. If the insured died, their beneficiaries now received \$3,447 (thick blue line), which was the policy's full value minus the outstanding indebtedness. The policy's cash value continued to accumulate (solid red line) until it equaled the value of the death benefit at age 96. Interest payments of \$93.18 increased the annual cost of the policy to \$200.18 from \$107. Annual payments remained at the new rate until the loan was paid back and the policy reverted to its original schedule of costs and benefits.

Figure 11 (c) depicts a third option: switching from an ordinary life policy to a paid-up term life contract. The new term policy would have the same death benefit as the original ordinary life contract. If the insured died within the term (which would be 15.5 years in our example of a man switching from ordinary life to term life at age 55 after paying 20 annual premia), their beneficiary would receive the full benefit (\$5,000 in our example). If the insured survived the term, however, their beneficiary received nothing. The length of the term depended on the age of the insured, which determined the annual cost of a term contract, and the cash value of the old policy, which determined how much was spent on the term policy. The term policy was paid up, so the insured need not make any additional payments. It retained a cash

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<sup>8</sup> MetLife's manual for insurance agents reveals reasons for the near linearity of the cash value curve for this policy. Ordinary life policies with face values of \$5,000 generated favorable selection since their purchasers were often high-income, highly educated professional men whose longevity exceeded the average and who were likely to continue paying the policy throughout their lives. Given the favorable selection and low cost of servicing these policies, MetLife assigned them extremely low loadings and moderate surrender charges.

value, which diminished linearly through the term, falling to zero at the end of the term. This option is one reason that most ordinary policies lapsed. Insured individuals who learned about their likely longevity or whose health declined would maximize their return from the policies by switching to term life and ceasing to pay premia.

Figure 11 (b) plots the last option: a paid-up ordinary life policy with a lower death benefit and cash value. The new death benefit was an actuarial fair value based on a policy that could be purchased with a lump sum payment equal to the original policy's current cash value. The new policy's cash value was a percentage of its old cash value, which was calculated by dividing the new death benefit by the old death benefit. In our example, the new death benefit was \$2,774. The percentage equaled 54.88 percent ( $=2744/5000$ ). The new cash value for each year was the cash value in the corresponding year of the original policy multiplied by the percentage. The new cash value also could be determined by another calculation, in which the cash value of the new policy rose 3.5 percent per year minus the surrender charge proportionate to the new death benefit.

The paid-up policy was an important option in our example because it was the default option if the policy lapsed, which it would do if the insured failed to pay a premium by the due date. After a lapse, the insured would have three months from the due date to choose whether the policy converted to a paid-up lower-value ordinary policy [i.e., Figure 11 (b)], a paid-up term life policy [i.e., Figure 11 (c)], or cash [i.e., Figure 11 (e)]. If the insured failed to contact the company or did not state a decision, the policy automatically would convert to the paid-up ordinary policy.

After a lapse, the insured could reinstate the original policy by paying all overdue premia with interest at 6 percent per annum and any overdue interest on policy loans outstanding. The balance of the loan need not be repaid, although the insured would have to acknowledge that the loan remained outstanding. The insured also would have to provide "evidence of insurability satisfactory to the Company" (Flitcraft p. 520), which meant that the company or its agent could require the insured to undergo another physical examination.

The premia for all ordinary life policies were based on the same assumptions and actuarial tables. MetLife stated that it had "no set limit" on the amount of insurance that it would write on a single life, although extremely large requests would be considered on a case-by-case basis. Policies were written in increments of \$1,000. To help individuals choose

policies and to help agents explain them to customers, MetLife distributed tables detailing the costs, cash values, loan values, and surrender options for policies with face values of \$1,000 and explained that the figures for policies of larger amounts were multiples of the published tables. An individual purchasing \$2,000 of insurance, in other words, could calculate the values that would apply to them by multiplying all numbers in the table by two. MetLife also had preprinted blank contracts for common amounts of insurance, which contained tables with the values of policy options printed on them. The tables contained values for contract years 1 to 20, 25, and 30; a description of the method of calculating values for these and all other years; and a provision that tables indicating the values for all years (from 1 to 95) could be viewed at offices of the company and its agents and would be provided to individuals upon request.

The policy remained in force until the company completed payments obligated by the agreement. The payments could be made in different forms depending on the mode of settlement chosen by the insured. The choices were to receive the payment as a lump sum, as installment payments for a specified number of years, as an annuity for life, as a life annuity with a guaranteed minimum number of payments, or as a series of interest-only payments for a specified interval or for life with the balance paid as a lump sum at the end. The company set the present value of all these streams of payment equal, assuming an interest rate of 3.5 percent per annum, although the realized interest rate could be higher on participating policies that also received dividends. The insured could select annual, semiannual, quarterly, or monthly payments. The insured indicated the payment option that they desired. They could change their selection at any time by submitting the appropriate form. After their death, their choice would be locked in unless they assigned the right to change the choice to their beneficiary. Literature recommended reserving this right only for beneficiaries with financial experience, as minor children and adults lacking investment experience might mismanage or squander large sums and were better off receiving regular payments of moderate amounts.

The policy also contained disability benefits. The company waived premium payments for individuals younger than age 60 with “total and permanent disabilities” who through “bodily injury or disease” had “become wholly and permanently disabled ... so that he is and will be permanently, continuously, and wholly prevented thereby from performing any work for compensation or profit” (Flitcraft p. 522). Applicants who applied for disability benefits had to submit proof of their claims and be examined by doctors employed by MetLife. Conditions

warranting compensation included but were not limited to “irrecoverable loss of the sight of both eyes, or the severance of both hands above the wrists, or of both feet, or of one entire hand and one entire foot” (Flitcraft p. 522).

Several pages of the policy reviewed standard provisions in ordinary life contracts. The company could not contest the contract after two years from its date of issue. Benefits from the contract were assignable; all assignments had to be “executed upon blanks furnished by the Company and filed with the Company at its Home Office in New York City” (Flitcraft p. 518). The policy did not cover deaths in military or naval service during times of hostility. The policy could be reinstated after lapse for nonpayment of premia by paying the past due premia plus interest at 6 percent per annum and presenting “evidence of insurability satisfactory to the Company” (Flitcraft p. 520). This evidence usually included passing a medical exam. The policy participated in in the profits of the company; each year, the company would ascertain and apportion the divisible surplus (i.e., retained earnings not reserved for taxes or contingencies). Policyholders could take their dividends in cash, apply it to payments of premia, use the dividends to purchase paid-up additions to the sum insured, or leave them on deposit at the company, where they would earn interest at a rate of 3.5 percent per year (or higher should the company raise the rate, but never lower) with principal and interest withdrawable on any anniversary date of the policy and payable when the insured perished or the policy matured.

### **Attractions of Ordinary Life Policies**

Ordinary life policies had many features that made them attractive to individuals planning their financial futures. The policies reduced risks, eliminated uncertainties, raised returns, reduced taxes, circumvented probate, and enabled them to direct funds toward anticipated expenses even if they should die too young to make the payments themselves. Two obvious attractions for individuals, which were emphasized in previous sections, were protecting their dependents and saving for retirement. Ordinary life contracts were good at both.

Investments in ordinary insurance had respectable returns, which varied depending on the specifics of the policy, the choices that the insured made while the policy remained in force, and the insured’s lifespan. Table 2 illustrates the latter point by examining returns on the MetLife policy described in the previous section. The table indicates returns earned on the insurance policy when it paid out due to death or maturity after various years in force. The investment

return after one year was 4572.9 percent since the insured paid \$107 and 365 days later received \$5,000 in return. The total return was slightly higher. In the first year, the policy did not pay dividends, but the insured benefited from life insurance over the year in the amount of \$11.70, which was the cost of a term life policy over that interval. They benefited because if they had died earlier, their investment of \$107 would have paid out immediately and they would have reaped a higher rate of return. The investment return remained above 10 percent for more than 20 years, declined to 3.4 percent after 30 years, and fell below 0 percent by 50 years when an individual had paid more for their policy than they would receive in return.

Over the years, however, the declining pure investment return on insurance was more than offset by the value that individuals received from the insurance itself and the dividends paid on their policies. The insurance value equaled the cost of term insurance over that span, since term insurance was the market price for a policy that paid money to beneficiaries if the insured died over a span of time but lacked a savings component or investment return. Dividends depended on a policy's reserves and the insurers' profits. Policies paid no dividends in their initial years. Dividends rose the longer policies remained in force and could be substantial. In the 1920s, MetLife paid dividends averaging about 1.5 percent of policies' net reserves (Best 1924 pp. 446–9). The policy in our example would have received dividends of roughly \$20 per year after 20 years in force and \$75 per year as the policy approached maturity.

The policy's returns need not end when the policy matured; the insured could leave their funds invested in the company. Their investment would have received an annual return of about 5 percent (3.5 percent stipulated annual return plus dividends averaging more than 1.5 percent per year). The return also might depend on their longevity if they decided to have the funds paid out as a life annuity that paid a fixed amount per month for the rest of their lives.

Returns for ordinary insurance were not just good but also safe. After the early 1870s, no legal reserve life insurer failed with loss to policyholders. Before that, only a few minor firms failed with losses to policyholders, and those losses were typically small. Legal reserve insurers were safe because state regulations required them to hold reserves sufficient to pay policies. Most states calculated these reserves based on the American Experience Mortality Tables, which were the most scientific and up-to-date tables available when most states initially regulated insurance from the 1860s through the 1880s. Rising incomes and improved health care reduced mortality rates in the late 19th and early 20th centuries. These reductions were not reflected in

insurance regulations for many decades, a delay that meant insurers accumulated more reserves than they needed to service their outstanding policies. Insurance companies that approached insolvency according to regulatory standards typically had sufficient reserves to service their outstanding policies. These reserves enabled them to reinsure or sell their outstanding policies to solvent insurers so that their policies remained in force and they could liquidate without imposing losses on their policyholders.

Legal reserve life insurance companies proved to be much safer than their competitors. Almost all life insurers that were organized as fraternal or assessment associations defaulted on obligations at some point between 1890 and 1940. Thousands of banks failed with losses to depositors in that span of time. Banking panics occurred about once every 20 years (Jalil 2015). Stocks and bonds experienced huge swings in value. Distress among banks, bonds, and stocks were correlated. The risk of these investments rose and returns on these investments fell during recessions like those beginning in 1907 and 1921 and depressions like those beginning in 1873, 1893, and 1929.

Nominal returns on life insurance savings were uncorrelated with these downturns. Life insurance reserves accumulated at a steady rate, typically 3.5 percent, compounding annually. Life insurers paid steady dividends since their portfolios were safe and diversified, which meant their earnings declined little during downturns, and income from premia fell little when the economy contracted since the downturn highlighted a benefit of savings via insurance rather than alternatives.

Deflation during depressions meant that real returns on life insurance savings were inversely correlated with returns on most types of investments. When stock prices declined and bond defaults widened, the real return on life insurance savings – the nominal return plus the rate of deflation – rose (Ezekiel 1937 p. 189). During the contraction of the early 1930s, for example, when deflation exceeded 10 percent per year, the real return on life insurance rose near or above 15 percent.

Life insurance had additional value during difficult times. Life insurers served as a reservoir of funds, and policy loans served as a lifeline for policyholders (Jacqua 1951). Training materials for life insurance agents at the time told them to tell prospective clients about life insurance's use as a hedge against financial downturns (Owen 1942, ALC 1953).



Another advantage of life insurance was the safety and convenience of entrusting funds to a national conglomerate rather than a local bank. Large financial institutions – including both insurance corporations and commercial banks – that were headquartered in New York and other eastern states with strict regulations offered payment services that spanned the nation and failed infrequently, almost never. Most banks, however, were small, local, and risky. Regulations limited branching. Most banks operated out of a single building in a single town, with few operating across towns and none operating across state lines. Local banks had difficulty diversifying lending and helping clients at a distance; they failed at high rates. While it was possible for individuals from anywhere in the nation to deposit funds in a Wall Street bank with a broader reach, it was difficult and costly to do so and therefore seldom done. The large East Coast insurance conglomerates operated differently, with subsidiaries in every state and agents throughout the nation. The largest ones had agents in almost every county in the nation and, in many states, almost every town. Their agents canvassed most neighborhoods and knocked on most doors in the nation. Life insurers, in other words, had the advantages of local presence and national scale.

Ordinary life policies had additional features that made them attractive investments, particularly in the early 20th century, an era of rising estate taxes and the introduction of income taxes. Life insurance benefits were subject to neither the federal estate tax nor estate taxes in most states. Life insurance benefits also were not subject to federal and state income taxes. Investment returns withdrawn from insurance plans – particularly paid-up additions in excess of a plan's initial parameters – were taxed as income, but the income was treated as a capital gain, taxed at a lower rate than ordinary income, and only taxed when withdrawn from the account. These tax advantages were particularly attractive to professionals with high incomes and substantial assets who benefited from convenient and low-cost methods of minimizing taxes.

Lower-income households were attracted to other advantages. Life insurance plans avoided probate, the legal process that distributes the assets of a deceased individual's estate. Probate was costly; the standard executor's fee was 7 percent of the value of an individual's estate. Probate could be slow, as it took time for executors to catalog a decedent's assets, offset them against debts, communicate with interested parties, process paperwork, and execute the will. If someone died with numerous creditors, the process could be slower as the executor verified the debts, determined their precedence, and settled disputes related to these claims. If

someone died intestate (without a will), distribution of assets would depend on state law. A probate that finished within a month would be quick, and a probate that lasted six months to one year would not be unusual. Disputes about probate could delay distribution of assets for much longer periods. Life insurers processed claims for benefits without charge and as rapidly as proof of death could be verified. Beneficiaries could expect to receive the first payment within weeks if the insured died near their home, if authorities recorded the death, and if newspapers published an obituary or details of funeral arrangements.

Life insurance benefits also were protected from creditors. The benefits were the property of the beneficiaries, who would receive the benefits of the policies despite the debts of the decedent. The benefits, of course, were assignable, and a creditor could be a beneficiary. Heads of household might direct the proceeds of their policies to creditors so that they could borrow at lower interest rates and ensure that their survivors secured the benefits of borrowing after their demise. Arrangements like this were often used for mortgages, for example, to ensure that a family could remain in a home if its breadwinner passed. The arrangement, it should be noted, was the choice of the insured. While they were alive, they could decide who would receive the benefits from their life insurance and whether creditors would be guaranteed all, some, or none of their funds.

A last advantage of life insurance policies was the ability to direct funds to particular parties or purposes after the insured's demise. In this respect, life insurers operated like legal trusts. While the insured party lived, they retained access to the equity in their policy. After they perished, the funds remained with the life insurance company, which paid the funds to the parties and in the manner that the insured directed before their death.

### **Comparisons to Social Security**

The attractions of ordinary life policies illuminate similarities and differences between retirement savings today, using Social Security, and retirement savings in the past, using ordinary life policies issued by legal reserve insurers. The two systems can be compared along many dimensions.

The trajectories of returns for the two systems differed dramatically. Although Social Security benefits are based on a complex set of factors beyond longevity, Social Security generally tends to pay higher returns to those who live longer and claim later. The survivors'

portion is typically small, is received only by dependents, and ceases when dependents become adults, remarry, or receive other sources of income. The survivors' portion also depends on the salary that someone received early in their career, which is usually much lower than that earned as someone gains tenure and experience. Disability payments are typically moderate.

Retirement benefits can be generous but are paid as an annuity. Therefore, the total return depends in large part on longevity. Social Security is generally a much better investment for people who live to age 95 and collect benefits for about 30 years than people who die at age 70 and collect benefits for less than a decade. In contrast, returns on ordinary life policies were highest for those who died soon after acquiring insurance. Returns declined the longer someone held the policy. After 25 years, returns approached those of investing in equity; after about 30 years, they approached those of investing in housing or bonds; after 45 years, they approached those of investing in savings accounts. On maturity, an ordinary life investor could have their funds paid out as an annuity; then their return would rise the longer they lived. This payment plan was optional, however, and the insurer equated expected returns on all payout options. Annuity payouts, moreover, were not compulsory as in Social Security.

The different trajectories shed light on the ways in which the two systems compensated individuals afflicted by ill fortune as well as the societies that devised these systems. Social Security shifts funds to those who live the longest, so individuals blessed by longevity receive the highest returns and individuals who die early earn lower returns. If an individual dies before retirement, their dependents receive small payouts whose value falls far below what the individual would have received had they lived to a ripe old age. A modern equivalent of an ordinary life payout would be to give designated survivors of Social Security enrollees a payout equal to the present value of the enrollee's future Social Security benefits, assuming the enrollee lived as long as and received annual salary increases as large as the average individual. The ordinary life system provided reasonable returns for retirement savings. Ordinary individuals with moderate savings and little investment expertise probably earned returns as high or higher than they could earn through other intermediaries. Ordinary life, however, emphasized leaving an estate for the insured's survivors, particularly spouses and children. This emphasis made sense in a society with little social safety nets and limited funding for higher education and where married women seldom worked and rarely earned salaries similar to men's. In that world,

if a father did not provide for his spouse and children, they would struggle and might be destitute.

Another large difference between Social Security and ordinary life policies are their interactions with inflation. Social Security is indexed; nominal benefits are raised each year by an amount equal to the increase in the Consumer Price Index (CPI). This automatic increase keeps real returns constant (and might increase them over time if CPI inflation overstates the actual rise in prices). Indexing began in the 1970s. Before then, Congress had to approve each increase in benefits, which it did on numerous occasions to compensate Social Security recipients for the loss of purchasing power due to high inflation in the 1960s and 1970s. Benefits of ordinary life policies were not indexed, and payouts were never adjusted for inflation. Instead, returns on ordinary life contracts were fixed in nominal terms. While inflation could rapidly erode these returns, ordinary life policies were good protection against deflation. During periods of deflation and recessions, values of competing investments – stocks, bonds, housing, and bank accounts – declined, sometimes substantially, while values of ordinary life policies rose since their nominal payouts did not change and legal life reserve companies seldom (almost never) failed with losses to policyholders.

Ordinary life was instituted in an era with a stable monetary regime: the gold standard. Prices typically declined. Peacetime deflation averaged about 1 percent and could be much higher during recessions and depressions. Deflation of consumer prices exceeded 10 percent per annum during the contractions in the early 1920s and 1930s. Deflation of wholesale prices was higher. Substantial price increases occurred mainly during wars, particularly World War I. Otherwise, the general price level in the 1900s was similar to prices in the 1870s. Prices at the end of the 1930s were lower than prices at the end of World War I.<sup>9</sup>

It may have been possible, of course, for ordinary life contracts to have been indexed to inflation, but the contracts and the entire industry were established in an era of long-run stable prices. Nobody anticipated the change to an inflationary monetary regime during the New Deal, so it did not make sense to devise and market long-run savings plan that protected individuals'

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<sup>9</sup> The last two statements are based on National Bureau of Economic Research, Index of the General Price Level for United States [M04051USM324NNBR], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/M04051USM324NNBR>, July 25, 2024.

savings against inflation when most people's principal economic concern was deflation. Ordinary life policies were well insulated against that eventuality.

Ordinary life insurance as devised during the 19th century, in other words, depended on the maintenance of price stability and a hard-money monetary regime. It may not have been possible to devise a different system at that time. The creation of insurance conglomerates that could operate over generations required developments in actuarial mathematics and the accumulation of accurate life tables. Developing mathematics that could accurately account for inflation would have been time-consuming and expensive; insisting on it could have delayed the development of the insurance industry substantially. Without it, ordinary life insurance was incompatible with inflation. This may be one reason that Democratic political candidates – such as William Jennings Bryan and Franklin Roosevelt – who advocated adopting inflationary (of reflationary) monetary regimes also advocated establishing national old-age assistance programs.

The inflation-deflation contrast raises a related issue. Social Security returns are political calculations as much as economic concerns. Taxes paid to and benefits received from Social Security are agreements between the population and the federal government. Parameters are not set in stone and can be changed by Congress. Most individuals do not receive the returns that were promised when they entered the system by paying OASDI taxes or when they began receiving benefits. The age when beneficiaries receive full benefits, for example, has been raised,<sup>10</sup> and so have benefits paid to retirees. Ordinary life differed. Costs and benefits were set at the outset of the policy. The insured could exercise options throughout the life of the contract, but the contract contained those options when they entered into the bargain. The parameters of the deal, which would last for years, decades, or, in many cases, the rest of an individual's life, were fixed at its onset.

The political-versus-contractual contrast raises the issue of incentive compatibility. Social Security participation is compulsory; the government compels participation. Individuals must pay Social Security taxes, and no one can opt out of the system. The government collects the funds, transfers them to current retirees, and loans any surpluses to itself. Ordinary life contracts were never compulsory; individuals and corporations entered into them voluntarily.

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<sup>10</sup> The SSA describes changes in the law and the evolution of the Social Security system on its website at <https://www.ssa.gov/history/50mm2.html>.

The contracts had to be compatible with individual and group incentives. Corporations had to want to issue the contracts and desire to stay in business to service them, and individuals had to want to sign the contracts and continue to participate.

Incentive compatibility underlies different returns offered by the two programs. Social Security paid initial generations of members returns much higher than they would have received based on their contributions (plus interest) alone. High payouts to initial generations were financed by compelling future generations to participate and pay taxes into the program. Fraternal and assessment insurers in the 19th and early 20th centuries tried to create voluntary (nonprofit and for-profit) organizations with similar overlapping generations' structures. All failed because they could not induce enough young individuals to join their organizations.

Social Security's structure – government control and mandatory participation – had broad implications for administration, employment, and education. Operating the legal reserve life insurance system was costly. Life insurance conglomerates had agents in every county and city in the United States. In 1935, employment in the life insurance industry exceeded 300,000 (Statistical Abstract of United States, 1935, p. 348). Annual payments to life insurance employees amounted to 1.8 percent of national income (Kuznets 1937 p. 5). Legal reserve life insurers needed those employees to sell and service financial contracts that spanned individuals' adult lives. Insurers believed they had to actively sell insurance by educating people about the long-run benefits of savings. Insurers sold an array of introductory savings/insurance vehicles designed to attract new customers, particularly low- and middle-income individuals and even children, to educate them on the benefits of long-term savings. Social security does not require such a large sales force. It has less need to educate the public about its products since participation is mandatory and administrative costs per policy are lower due to its huge volume of policies over which to spread the costs of its operations.

## **Discussion and Conclusion**

Understanding how the creation of Social Security impacted American society requires an understanding of the institutions that it replaced. A lacuna exists in the literature on this issue. The literature has forgotten how ordinary working Americans saved for retirement in the decades preceding the creation of Social Security. The Social Security Administration's (SSA's) own website – which is the most prominent explanation of the system's origins and impact – is a

case in point.<sup>11</sup> It does not mention legal reserve insurers or ordinary life insurance. It indicates that immediately before the creation of Social Security, “one-third to one-half of the aged” were destitute and dependent on “friends or family for support.” It asserts that due to the Great Depression of “the mid-1930s, the lifetime savings of millions of people had been wiped out.”

These assertions, this essay argues, were unfounded. Most ordinary Americans held most of their savings in ordinary life insurance issued by legal reserve insurance companies. If they retained their jobs and made their periodic payments, the value of their savings rose rapidly during the 1930s relative to wealthier families who invested in stocks, bonds, and housing. Far from being unprepared for retirement, most heads of household in the United States had, in their ordinary life policies, an old-age savings plan that covered contingencies including disability, early demise, and deflationary shocks. The Great Depression did not wipe out their life savings and compel the United States to create Social Security. The inflation that began during World War II and continues to this day did that.

This realization helps clarify the problem that Social Security initially tried to solve. Some people had not saved enough for retirement, or their retirement plans fell through. Others lost their jobs during the Depression and lacked the ability to save even though they desired to do so. The patchwork of programs that existed in 30 states in the mid-1930s did not do enough to assist these individuals. Social Security was initially established to handle this issue, providing moderate pensions in old age to stave off indigency for the many Americans who, through bad luck or bad planning, did not have sufficient support in retirement. It was not designed to be the main savings vehicle for ordinary Americans. Most of their retirement savings was held by legal reserve life insurance companies during the 1930s. Those funds were safe, and their real value increased substantially during the deflation of the Depression.

Looking ahead to the period after the advent of peacetime inflation, then, it is easy to see the attractions of the newly established OASDI over the ordinary life insurance products it came to supplant. Chief among them was that it preserved the value of eligible Americans’ retirement savings even in the presence of rising prices. However, it is important to note that not all Americans were initially eligible to participate in Social Security. Just as political concerns helped shape other aspects of Social Security’s design, political considerations also led to many Black Americans being excluded from participation by dint of their employment in farming or

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<sup>11</sup> <https://www.ssa.gov/history/50mm2.html>

service occupations, which were initially carved out in the Social Security Act. Accordingly, it is also easy to see the potential implications of the transition from ordinary life insurance to Social Security for disparities in old-age savings and in wealth more generally. With Black households already heavily participating in life insurance for historical reasons (Arthi et al., 2024) and with many Black households now (at least temporarily) locked out of Social Security, these households would have seen their old-age savings eroded even as other households shifted from more- to less-impacted retirement savings vehicles. In this way, the transition from private to nationalized retirement savings may have contributed to persistence in racial disparities, at least until occupational eligibility restrictions with disparate impacts on Black workers were unwound in the decades following the Social Security Act. The downstream impacts of these policies on racial wealth gaps remain a matter for future research.



## References

- Aetna Life Insurance Company. 1923. *Year Book 1923*. Hartford, CT.
- Ben-Arab, Mounira, et al. 1996. "Habit Formation and the Demand for Insurance." *The Journal of Risk and Insurance* 63(1): 111-119.
- Bond, Tyler and Frank Porell. 2020. "Examining the Nest Egg: The Sources of Retirement Income for Older Americans." Report. Washington, DC: National Institute on Retirement Security.
- Center on Budget and Policy Priorities. 2024. "Policy Basics: Top Ten Facts about Social Security." Washington, DC.
- Dushi, Irena, Howard M. Iams, and Brad Trenkamp. 2017. "The Importance of Social Security Benefits to the Income of the Aged Population." *Social Security Bulletin* 2: 1-12.
- Ezekiel, Mordecai. 1937. "An Annual Estimate of Savings by Individuals." *The Review of Economics and Statistics* 19(4): 178-191.
- Geren, Paul. 1943. "The Contribution of Life Insurance to the Savings Stream." *Journal of Political Economy* 51(1): 33-51.
- Hayden's Annual Cyclopedia of Insurance in the United States*. Printed annually from 1891. Hartford, CT: Insurance Journal Co. Notes.
- Henderson, Charles Richmond. 1907. "Industrial Insurance. VI. Private Insurance Companies." *American Journal of Sociology* 13(3): 349-379.
- Kuznets, Simon. 1937. "National Income, 1919-1935." Bulletin 66. Cambridge, MA: National Bureau of Economic Research.
- Lewis, Cleona. 1935. "The Trend of Savings, 1900-1929." *Journal of Political Economy* XLIII: 535-547.
- Massachusetts Department of Banking and Insurance, Division of Insurance. 1889. *Annual Report of the Insurance Commissioner*. Boston, MA: State Printers.
- Mehr, Robert I. 1975. "The Concept of the Level-Premium Whole Life Insurance Policy. Reexamined." *The Journal of Risk and Insurance* 42(3): 419-431.
- Mian, Atif, et al. 2013. "Household Balance Sheets, Consumption, and the Economic Slump." *The Quarterly Journal of Economics* 128(4): 1687-1726.
- Mishkin, Frederic S. 1978. "The Household Balance Sheet and the Great Depression." *The Journal of Economic History* 38(4): 918-937.

National Bureau of Economic Research, Index of the General Price Level for United States [M04051USM324NNBR], retrieved from FRED, Federal Reserve Bank of St. Louis. 2024. Available at: <https://fred.stlouisfed.org/series/M04051USM324NNBR>.

New York State, Insurance Department. Various. *Annual Reports of the Superintendent of Insurance to the New York Legislature*. Albany, NY.

New York State, Insurance Department. 1866. *Seventh Annual Report of the Superintendent of the Insurance Department*. Albany, NY: Cornelius Wendell, Legislative Printer.

New York State, Insurance Department. and William Barnes. Various. *New York Insurance Reports, Condensed Edition*. Albany, NY: Weed, Parsons and Co.

Sevier, John C. 1959. "Life Insurance Reserves and Aggregate Savings." *The Journal of Insurance* 26(4): 65-68.

Smith, Harrison Brooks. 1923. *Life Insurance Explained and Applied*. Princeton, NJ: Princeton University Press for George Washington Life Insurance Company. Available at: <https://hdl.handle.net/2027/mdp.39015017360093>.

Stalson, J. Owen. 1942. *Marketing Life Insurance; Its History in America*. Cambridge, MA: Harvard University Press. Available at: <https://hdl.handle.net/2027/uc1.b4365893>.

United States Bureau of the Census, et al. 1935. *Statistical Abstract of the United States 1935*. U.S. Government Printing Office.

Warburton, Clark. 1935. "The Trend of Savings, 1900-1929." *Journal of Political Economy* 43(1): 84-101.

Table 1. *Savings During the Roaring 20s and Great Contraction*

	Individuals via Institutions			Corporate Equity
	Life Insurance	Building & Loans	Bank Deposits	
1920-24	\$5,478	\$2,639	\$4,446	\$4,193
1925-29	9,420	3,929	3,155	10,788
1930-35	11,616	-2,250	-3,547	-26,573
Total 1920-35	25,514	4,318	4,054	-11,602

Source: Ezekiel (1937).

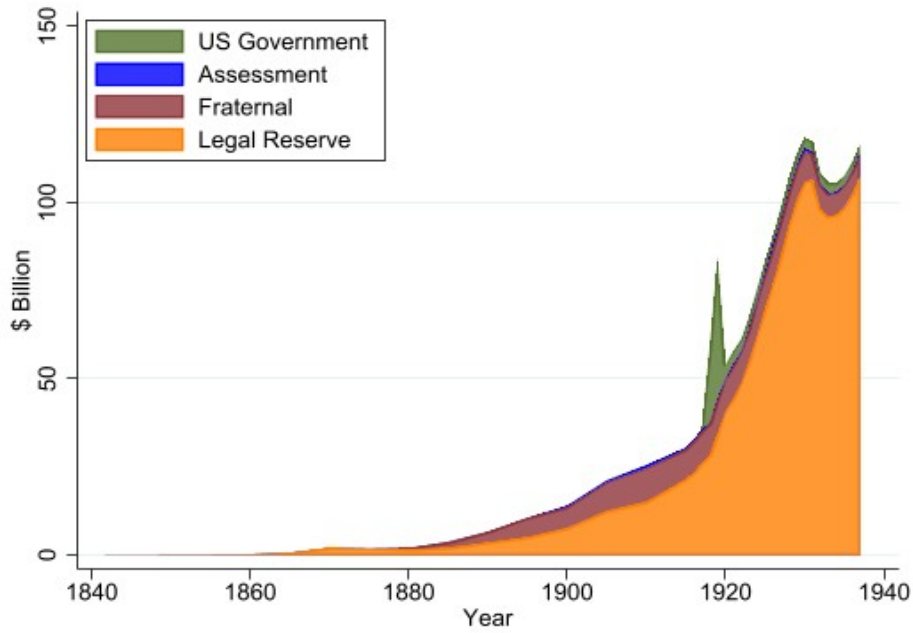
Table 2. *Returns on Ordinary Life Insurance Contracts*

Year	Total	Investment	Dividends + Insurance
1	4572.9%	4572.9%	0.1%
2	535.1%	535.0%	0.1%
3	221.2%	221.0%	0.2%
5	87.3%	87.0%	0.2%
7	49.5%	49.1%	0.4%
10	39.6%	39.1%	0.5%
20	15.4%	14.4%	1.0%
30	4.9%	3.4%	1.5%
40	2.9%	0.9%	2.0%
50	2.2%	-0.3%	2.5%
60	2.1%	-0.9%	3.0%

Notes: Returns calculated on the last day of the year. *Year* indicates number of years for which policy was in force. For years below 60, the *investment return* indicates the annually compounded nominal return earned if the insured perished and the beneficiary received payment of the face value. For year 60, the investment return indicates the annually compounded nominal return earned by the insured when they received the payout of the face value when the policy matured. *Total return* indicates the return earned after adding to the face value received upon death or maturity the compounded value of the dividends received on the policy and the term premium that the insured would have paid for life insurance protection from the start of the policy until the date of death. Returns on *dividends plus insurance* is total return minus investment return.

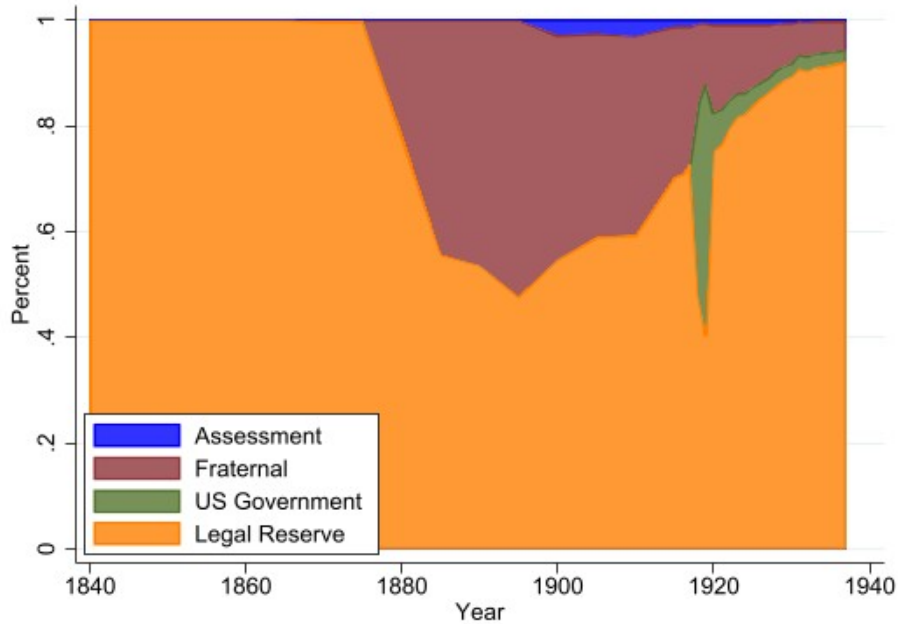
Source: Authors' calculations based on MetLife Policy from Flitcraft (1915 pp. 517-532).

Figure 1. *Total Life Insurance in Force by Underwriter*



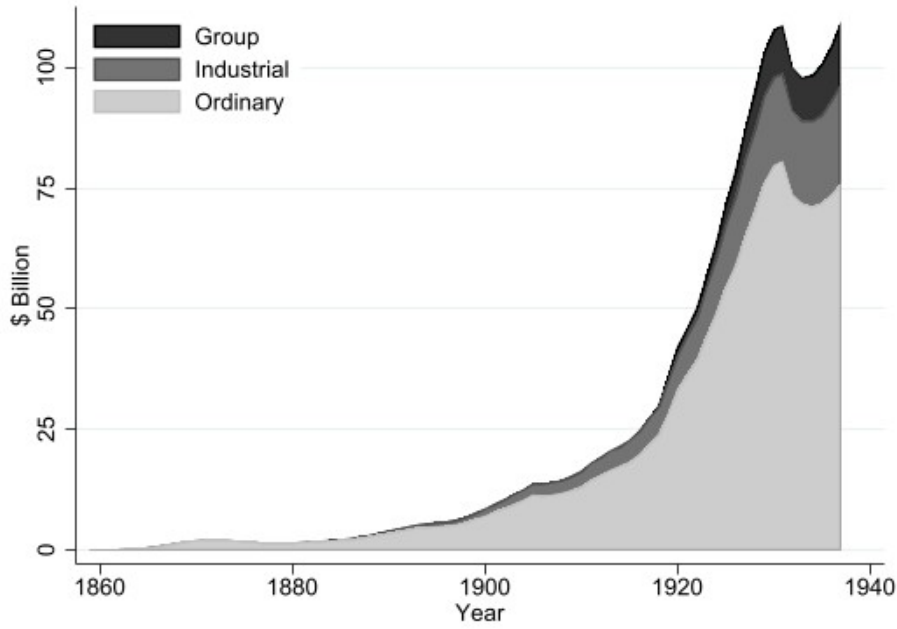
Note: Canadian and European underwriters excluded.  
 Source: Owen (1942 Appendix 25 pp. 816-818).

Figure 2. *Shares of Life Insurance in Force by Underwriter*



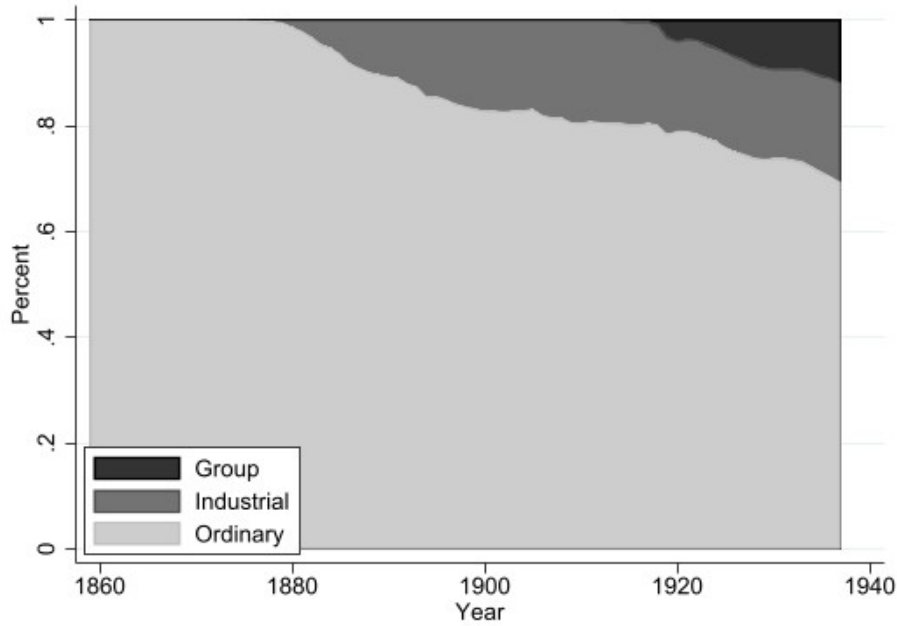
Note: Canadian and European underwriters excluded.  
 Source: Owen (1942 Appendix 25 pp. 816-818).

Figure 3. *Total Legal Reserve Life Insurance in Force by Type*



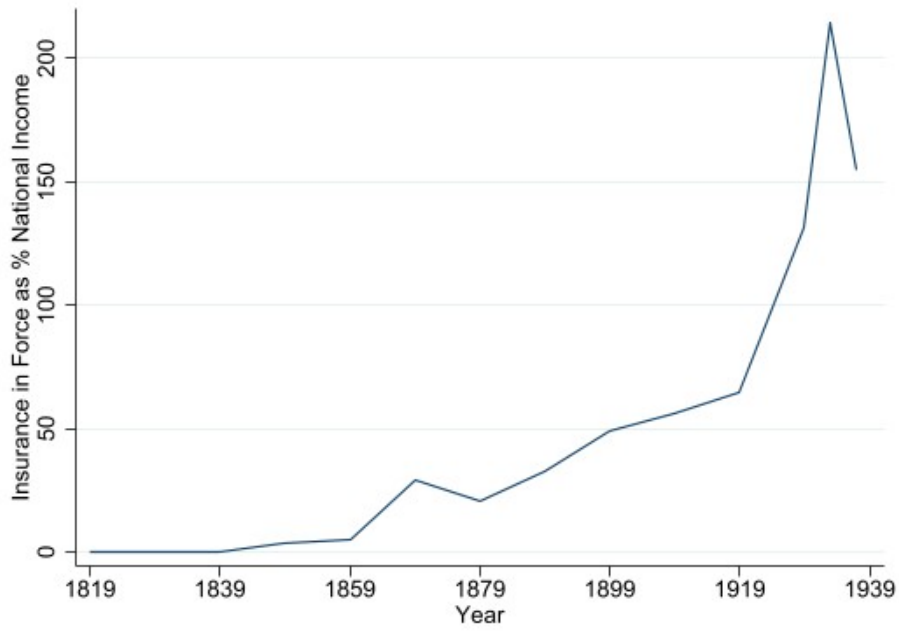
Note: Canadian and European underwriters excluded.  
Source: Owen (1942 Appendix 24 pp. 813-815).

Figure 4. *Shares of Legal Reserve Life Insurance in Force by Type*



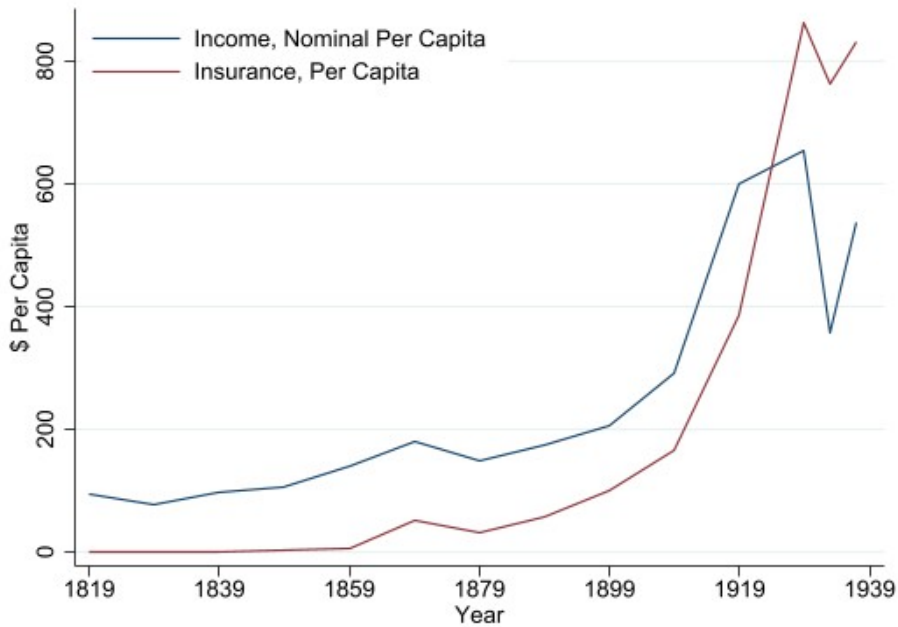
Note: Canadian and European underwriters excluded.  
Source: Owen (1942 Appendix 24 pp. 813-815).

Figure 5. *Insurance in Force Relative to National Income*



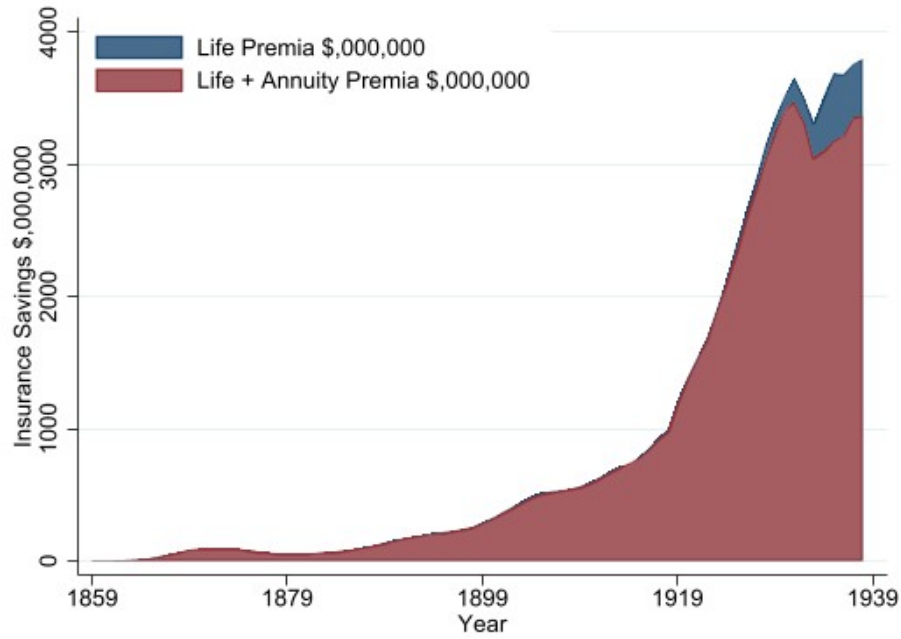
Source: Owen (1942 Appendix 44 p. 876).

Figure 6. *Per Capita Income and Insurance in Force*



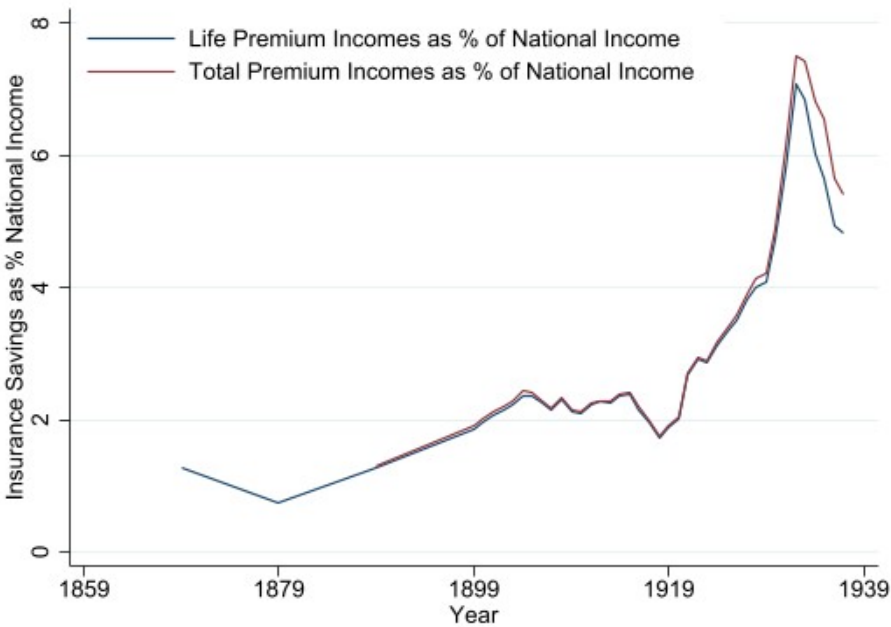
Source: Owen (1942 Appendix 44 p. 876).

Figure 7. *Premia Paid to Legal Reserve Life Insurance Companies*



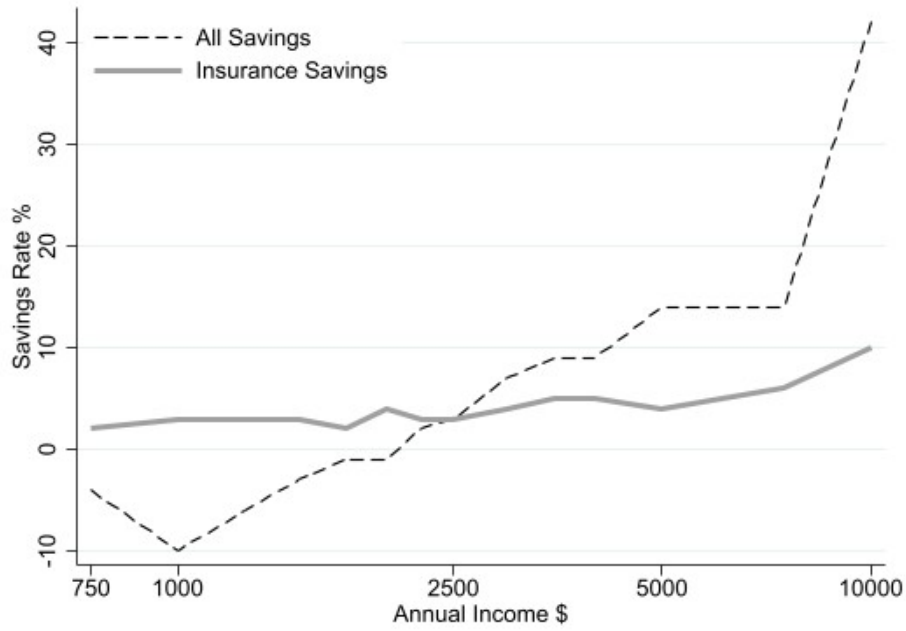
Source: Owen (1942 Appendix 45 pp. 877-879).

Figure 8. *Legal Reserve Life Insurance Savings Rate*



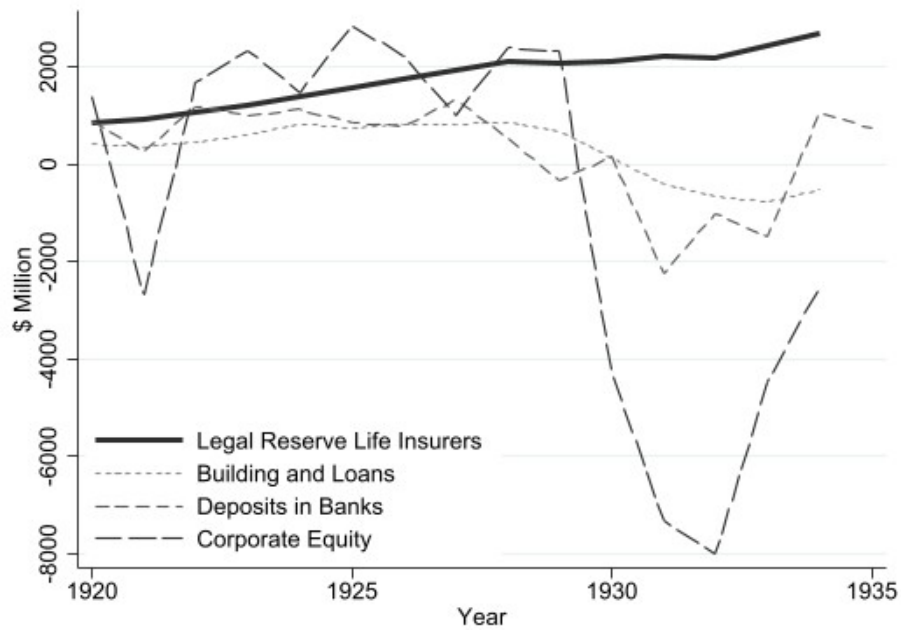
Source: Owen (1942 Appendix 44 p. 876 and Appendix 45 pp. 877-879).

Figure 9. *Savings Rates Relative to Annual Income, 1935*



Source: Geren (1943 p. 37).

Figure 10. *Savings via Four Main Financial Intermediaries, 1920 to 1936*

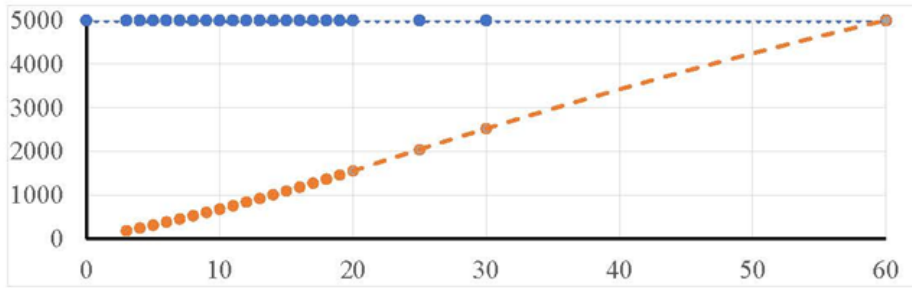


Source: Ezekiel (1937, Table 11 p. 190).

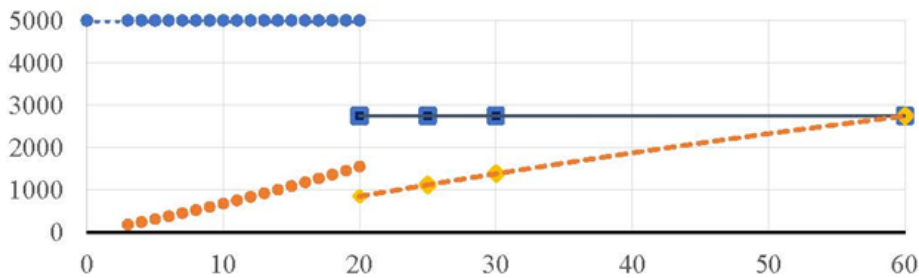


Figure 11. MetLife's \$5,000 Ordinary Life Policy

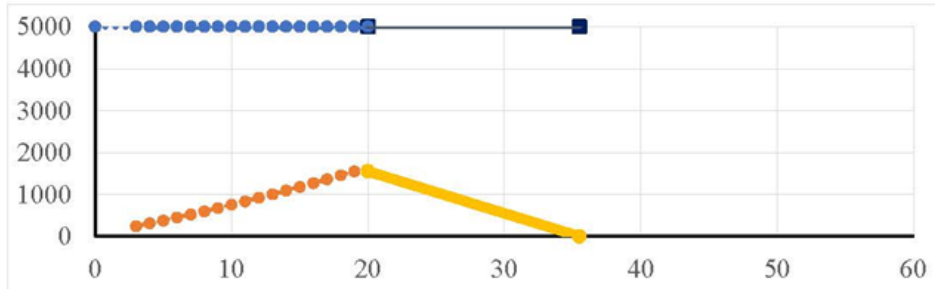
(a) Initial Policy – \$5,000 Face Value and Increasing Cash



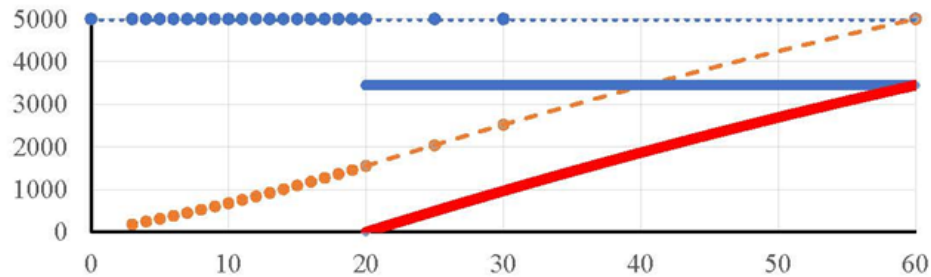
(b) Paid-Up Policy – Default Option After Lapse



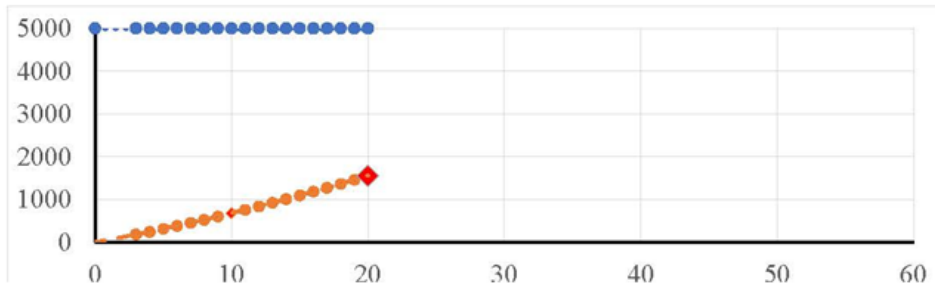
(c) Term Life Policy



(d) Policy Loan



(e) Surrender and Accept Cash Value



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