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The financialization of US public pension funds, 1945–1974

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ABSTRACT

This article examines the transformation of public employee pension investment in the United States, from investing public funds in public infrastructure before the 1950s, to investing public funds in private securities in the years after. Three factors drove this change. First, motivated financial professionals convinced states to adopt the "prudent man rule," a legal investment standard that emphasized professional management and maximum financial returns. Second, declining bond yields during World War II led public pension managers to reconceptualize the political goals of pension investment, from balancing retiree returns against low-cost public infrastructure, to maximizing employee benefits by achieving maximum returns in financial markets. Third, public officials hired private asset managers to undertake new investment strategies. These professionals then used their influence to pursue further pension liberalization. Ultimately, US financialization was not a break, but a continuous process through which government officials intentionally used financial markets to enhance public social provision.

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KEYWORDS Financialization; pensions; liberalism; professionalization; asset management

Introduction

Funded pension systems accumulate and invest savings in the present to provide retirement benefits in the future. Pension funds are thus *welfare institutions* responsible for providing retirement security and *institutional investors* that pool and mobilize financial capital. Recently, scholars have examined the changing relationship between these functions in light of the rising importance of financial profitmaking and the associated power of financial elites in advanced capitalist economies since the 1980s. This 'pension financialization' literature emphasizes the new dependence of retirees on financial

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market returns; the transition of pension portfolios to risky, short-term investments; and the accretion of power in the hands of professional asset managers (Avrahampour, 2015; Bonizzi et al., 2021; Braun, 2021; Braun, 2022; Dixon, 2008; McCarthy et al., 2016; Hassel et al., 2019; van der Zwan, 2017). Although scholars recognize that US private employee pensions began to financialize in the 1950s (McCarthy, 2017), the literature broadly aligns with the periodization of the neoliberal and financial turns by focusing on the era after the 1970s economic crises (Davis & Kim, 2015; Harvey, 2007; Krippner, 2011).

This article challenges both periodizations – that is, pension financialization and financialization more broadly – by examining the changing investment strategies of public-sector pensions in the United States. In the 1950s and 1960s, state and local officials transformed public pension portfolios, disinvesting from government bonds and reinvesting in corporate stocks, bonds, mortgages, and other risky assets. As they did so, public funds hired professional asset managers, shifting investment authority from government officials to private financiers. This reallocation of responsibility reflected a fundamental change in the objectives of public pension investment. Until the 1950s, government pension managers used pension investments as a governance tool: under the rubric of 'fiscal mutualism,' they invested in government bonds to lower public borrowing costs and encourage public infrastructure development (Glass & Vanatta, 2021). Public pension managers – high-ranking state and municipal fiscal officers – balanced pensioners' needs for safe, stable returns with local governments' needs for low-cost finance. During the 1950s, public officials, guided by professional asset managers, abandoned this framework and sought instead to maximize pensioner benefits at minimal taxpayer cost by achieving maximum returns in financial markets. The financialization of US public pensions was thus a deliberate outcome (cf. Krippner, 2011, p. 2), and one entirely consistent with the enduring US practice of using private financial markets to achieve public ends (Cebul, 2022; Jenkins, 2021; Quinn, 2019; Radford, 2013). US public pension financialization – and US financialization more generally – arose from efforts to meet postwar commitments to social welfare, rather than from a rejection of or turn away from those commitments.

The remainder of this essay will unpack this transformation, drawing in part on state-level case studies from New York and North Carolina. The essay begins with a brief literature review and methodological section that elaborates the article's challenge to financialization scholarship and develops its theoretical framework, which roots changes in pension investment in contests over expertise and authority among financial professionals (Suddaby & Viale, 2011). The essay then narrates the development of state and municipal pensions in the 1920s, explaining how one group of professionals, insurance actuaries, initially shaped investment preferences for the safe, uniform returns offered by government securities. These preferences were inscribed in legal

investment restrictions that reinforced fiscal mutualism – investing public assets in public infrastructure. The essay then examines a broader change in the legal norms of trusteeship in the adjacent field of professional asset management. In the 1940s, lawyers and professional asset managers (trust bankers, investment bankers, and portfolio advisors) orchestrated a transformation in state-level trust law, from an emphasis on legally-mandated investment lists (such as those that undergirded fiscal mutualism), to the so-called 'prudent man rule,' which emphasized manager discretion in trust investments in order to maximize financial returns.

Changes in general state trust laws in the 1940s and 1950s did not immediately affect public pensions, which continued to be governed by specific investment rules. Nevertheless, declining municipal bond yields during World War II undermined the economic logic of fiscal mutualism, creating space for professional asset managers to challenge the prevailing public investment norms. The article examines how public pension trustees in New York and North Carolina responded to changing market conditions by seeking to liberalize their investment authority and then hiring new professional fiduciaries to manage portions of their funds. These professional asset managers, in turn, used their new positions within the state to lobby for further liberalization (Golka & van der Zwan, 2022), displacing actuaries in the field of public pension investment.

The essay concludes by situating those states' experiences in the broader context of public pension financialization, which had significantly advanced by the late 1960s. State and municipal pensions still operated under some investment restrictions, yet the momentum was firmly with professional asset managers and discretionary investment standards. In this sense, the federal Employee Retirement Income Security Act (1974), which applied a prudent investor standard to public pension trustees, was the conclusion of a process through which private asset managers had imprinted their ideology on public pensions; it marked the end of public pension financialization, rather than the beginning (Wooten, 2004; cf. Montagne, 2012).

Literature review and methodological approach

Recent literature on financialization is broadly concerned with the political-economic transition from industrial to financial profitmaking in advanced capitalist economies since the 1970s and the consequent transformations in society and culture in these countries. Natascha van der Zwan divides the field into three essential strands: (1) financialization as a new regime of accumulation, viz. corporate profits generated through finance rather than trade and production; (2) financialization as new regime of corporate governance, viz. shareholder value ideology uniting corporate shareholders and managers in pursuit of short term, speculative profits; (3) financialization of everyday life, viz.

new requirements that people meet basic needs through engagement with financial markets and products (2014). The narrative developed here implicates all three strands, but it aims primarily at the first. In her landmark study of political-economic transformation, *Capitalizing on Crisis*, Greta Krippner argues that the transition toward financial profitmaking in the United States was the inadvertent consequence social and political crises in post-World War II American capitalism. In the late 1970s, rising demands for access to social benefits from formerly excluded social groups (women, racial minorities, and elderly persons) led US policymakers to shift difficult allocative decisions from the political sphere to financial markets. Policymakers did so by deregulating the financial services industry, which in turn led to the growth of the financial sector and growing emphasis on financial profitmaking. 'Thus financialization was not a deliberate outcome sought by policymakers but rather an inadvertent result of the state's attempts to solve other problems,' Krippner argues (2011, p. 2).

This essay develops a contrary perspective, one rooted in historically oriented scholarship of the United States's public-private welfare state (Hacker, 2002; Klein, 2003). Rather than seeing financial market provision as an alternative to public welfare, such scholarship emphasizes the US welfare system's fundamental reliance on financial markets to deliver public benefits (Cebul, 2022; Jenkins, 2021; Quinn, 2019; Radford, 2013). Public dependence on private finance predated the expansion of welfare policies during the 1930s New Deal, and many of the most long-lasting and substantive New Deal welfare programs, like federally subsidized home mortgages, relied on financial markets both directly through the private lenders that made home loans and indirectly through the bond markets governments used to finance roads, sewers, and schools in subsidized neighborhoods (Glass & Vanatta, 2021; Quinn, 2019; Prasad, 2012). US policymakers channeled social provision through financial markets, positioning financial elites to incrementally reshape public provision in service of private profit. This essay develops this claim through the case of public employee pensions, but its larger aim is to reorient US financialization scholarship. Financialization in the United States was not a countermovement against New Deal social provision but was instead a direct outgrowth of the public-private welfare model nascent in public pensions by the 1920s and fully embraced by New Deal reformers in 1930s.

As the above implies, the story of US public pension financialization is one of motivated financial professionals infiltrating and redirecting public institutions. Undergirding this study, in turn, is a theoretical apparatus developed by Suddaby and Viale (2011), which links contests over professional jurisdiction (Abbott, 1988) – that is, efforts by professional groups to claim authority over intellectual and economic domains vis-à-vis other professional groups – to changes in organizational fields (DiMaggio & Powell, 1983) – that is, transformations in the objectives, composition, and reproduction

of social institutions. Suddaby and Viale 'observe four essential dynamics through which professionals reconfigure institutions and organizational fields:

> First, professionals use their expertise and legitimacy to challenge the incumbent order and to define a new, open and uncontested space. Second, professionals use their inherent social capital and skill to populate the field with new actors and new identities. Third, professionals introduce nascent new rules and standards that recreate the boundaries of the field. Fourth, professionals manage the use and reproduction of social capital within a field thereby conferring a new status hierarchy or social order within the field.' (2011, p. 424)

Here, I show how professional asset managers challenged incumbent actuaries, who had participated in the mutualist framework and encouraged public pensions to invest in public securities within the field of public pension management. Low municipal bond yields, however, created problems for mutualistic investment, problems that professional asset managers claimed to solve through alternative, higher-yielding investment strategies. On the strength of their expertise, asset managers gradually joined the organizations where state policymakers shaped, maintained, and reproduced the public pension management field, marking out public pension investment as a distinct domain of professional expertise. Asset managers then used their new influence within state pension systems to secure pension investment rules that aligned with their professional norms, thus ensuring the reproduction of private fiduciaries within public pensions that increasingly relied on their return-maximizing strategies.

This process of institutional change and professional reproduction was specific to pubic pensions, but suggests a more generalizable process through which US financial elites restructured state institutions, before and after the so-called financial turn of the 1980s. Preexisting public dependence on private finance meant that in moments of strain, financial professionals were pre-positioned to offer solutions that increased governments' reliance on financial markets and strategies. Put another way: public institutions face resource constraints that financial strategies can temporarily break (i.e. by moving future resources into the present or transforming the future value of present resources). Yet financial fixes expose governments to greater financial risk; when those risks materialize, professional financiers are situated to offer new solutions, which inevitably lead to greater public dependence on private finance. In US public pensions, this shift is evident in the changing composition of pension portfolios over time, from government bonds to corporate bonds; from corporate bonds to corporate equities; from equities to comprehensive portfolio management strategies; and from portfolio management to hedge funds, private equity, and the like (Langley, 2004). Other changes in public financial practice, like the rise of tax increment financing (Pacewicz, 2013), suggest a similar process in related policy domains.

In what follows, this theoretical framing remains largely implicit in order to emphasize the historical processes in action. The analysis builds on a rich body of contemporary sources – state government records, reports from professional organizations, law review commentary, and financial trade literature – to narrate the transformation of US public pensions. The study grounds its analysis in two cases, New York and North Carolina, which were chosen for the availability of archival material that document public pension management and investment strategies over a long period of time.[1] Within US federalism, each state offers a distinct configuration of political actors, government institutions, and financial professionals. By situating both cases within the larger context of state pension financialization, the essay shows that New York and North Carolina transformed their investment strategies at a similar time and through similar means as peer states. Their experiences were particular without being exceptional, demonstrating the specific and contingent processes through which private fiduciaries gained authority over public investment.

Historical development of US public pension funds

United States public-sector pensions developed more slowly than those of peer nations in the industrial Atlantic. While many European countries established retirement systems for public employees in the 1860s and 1870s, US reformers only gained ground during the 1890s, when large cities began offering disability and retirement plans for police, firefighters, and teachers. State governments, too, pursued teachers pensions and – albeit more slowly – pensions for all civil service employees (Clark et al., 2003, pp. 167–217). Through the first half of the twentieth century, the movement was largely a top-down affair. Public sector workers lacked rights to organize and collectively bargain, even after Congress granted such rights to private workers in the 1930s (Slater, 2016, pp. 2–3). Instead, civil service systems, with pensions as an integral component, offered an alternative means of attaining job security and pay advances (Kearney & Mareschal, 2017, p. 17).

Local governments – i.e. municipal, county, and state – experimented with a variety of pension financing models, from forced-savings funded by employee contributions to pay-as-you-go plans paid from current budgets. In the 1910s and 1920s, many state governments absorbed and consolidated small, employee-group specific plans that had emerged in previous decades. As they did so, public pensions coalesced around a funded model, adapted from the life insurance industry. Pension systems accumulated employee- and employer savings into trust funds and invested them to meet future pension

[1] Other states with robust state pension archives include California and Minnesota, which I have consulted, and Texas, which I have not (yet).

obligations. Professional actuaries guided pension development, encouraging state and municipal governments to adopt 'scientific,' funded plans (Buck, 1926; Illinois Pension Laws Commission, 1919, p. 15).[2] To determine how much pension systems needed to save, actuaries assumed a fixed rate of interest earned on accumulated funds, usually 4 percent. Funded plans then required trustees to meet interest rate targets, with sponsoring governments making up the difference on an annual basis if investment returns fell below the proscribed rates.

State and local governments assumed responsibility for pension obligations in a period of fiscal consolidation with US federalism, through which municipal and state fiscal officers also became responsible for managing public investment. Turn-of-the-century demand for new public infrastructure, including hard-surface roads and school buildings, required larger outlays than city and county governments could manage. Over time, responsibility shifted up to state governments and out into the future through increased reliance on bond financing. Because state governments bore ultimate responsibility for the fiscal health of their political subdivisions, growing use of local bond financing also led to increased state supervision of municipal finance (Myers, 1970, pp. 267–269; Studenski & Krooss, 1963, pp. 197–198, 350–352). State and local governments, meanwhile, largely restricted pension investments to government securities. They did so either by establishing specific legal lists, usually limited to federal bonds and those of the sponsoring state and its political subdivisions (referred to collectively as 'municipal bonds'), or by requiring pension trustees to abide by investment rules governing other state-regulated financial entities, including insurance companies, savings banks, or sinking funds (Clark et al., 2003, pp. 204–214). Legal restrictions reflected an overriding concern for investment safety and predictable, fixed returns. Government securities, pension advocates argued, enjoyed the unique backing of government taxing power (Brown, 1911, p. 194). Moreover, pension beneficiaries, as government employees, would have 'a personal interest in the financial integrity of the municipality,' as New York investment banker Cushman McGee argued in 1944. 'They will exert themselves toward the maintenance of its credit record so that it will pay its bonds (McGee, 1944, p. 17).'

By restricting pension investments to government bonds, legislatures encouraged pension trustees to invest under the rubric of 'fiscal mutualism' (Glass & Vanatta, 2021), a mode of fiscal governance through which trustees actively invested public pension funds in local public infrastructure. Trustees were government fiscal officers (variously auditors, comptrollers, or treasurers), either as sole trustee (as in New York) or as part of a pension board

[2] Actuaries had won a professionalization contest at turn of the century against fraternal organizations that relied on periodic member assessments (Levy, 2014, pp. 119–230).

(as in North Carolina). Pension boards, in turn, usually included other government officials, like state commissioners of banking or insurance, who had knowledge of financial markets and supervisory authority over depositories of retirement funds (Andrews, 1964, pp. 449–453). Under fiscal mutualism, pension trustees balanced the interests of pensioners, who wanted safe, guaranteed returns and of local governments, that wanted low-cost finance. Morris S. Tremaine, New York State Comptroller from 1927 to 1941, described this strategy in his 1929 Annual Report: 'I have continued the policy . . . of investing largely in the bonds of the municipalities of New York State, assisting them in procuring funds for needed improvements at a fair rate of interest when their financial condition warrants their borrowing' (State of New York, 1930, p. xvii). Pension managers like Tremaine used their investment authority to mediate between borrowing governments and financial markets, helping smaller political units raise funds 'at a fair rate of interest,' but only when they were in a financial position to do so. In this way, public pension investment enabled government pension managers to support local economic development and control local expenditure, for which the sponsoring government was ultimately responsible (Clark et al., 2003, pp. 167–170, 204–214).

Although initiated a generation apart, New York and North Carolina lawmakers both established funded pensions with investment provisions that encouraged fiscal mutualism. New York State lawmakers created the New York State Employee Retirement System (NYSERS) in 1919. 'At the outset,' the state's Commission on Pensions wrote,

> the Commission resolved that the cost of the benefits of any plan recommended should be definitely determined by actuarial computation and that definite provision should be made for contributions or income which would be adequate to meet the cost so determined. (State of New York, 1920, p. 21)

Employees and public employers (which included city and county governments that chose to participate) made matching contributions to a central fund. The state comptroller, the state's highest fiscal officer, held the funds in trust. The comptroller could invest in US government bonds and in securities issued by New York State and its political subdivisions. The state guaranteed a 4 percent return on accumulated savings and promised to make deficiency payments when investment returns failed to reach this legal threshold. When North Carolina convened a retirement commission in 1940, actuarial reserve financing was the norm among state pensions, and the commission pointed to New York's plan as worthy of emulation. The commission sought a liberal investment standard, the same as 'those imposed … upon life insurance companies' (State of North Carolina, 1940, pp. 6–7). Lawmakers, however, restricted pension investments to those authorized for government sinking funds: US government bonds and bonds issued by the State of North Carolina and its political subdivisions. 'This provision insures … safe-guarding of funds,' the board of trustees explained in its first report to members in 1941 (State of North

Carolina. Board of Trustees. Teachers and State Employees' Retirement System of North Carolina, 1941). Finally, North Carolina's pension law established a guaranteed return on contributions of between 3 and 4 percent, at the discretion of the state pension board, over which the state treasurer was, ex officio, chairman.

As they managed public pension plans, state and municipal fiscal officers developed professional networks, through which they organized public pension management as a legible field of expertise. Some networks specifically focused on pensions, like the Southern Conference on Teacher Retirement. Others, like the annual convention of the National Association of State Auditors, Comptrollers and Treasurers, gradually made pension management a consistent area of investigation and discussion. Reflecting their role in these systems, professional actuaries attended these meetings. Before the 1950s, professional fiduciaries did not.[3] Together, fixed investment rules, pension management by government officials, and the influence of professional actuaries who preferred fixed income investments with guaranteed returns all pushed public investments into government securities in the years before World War II. In 1942, the year after North Carolina began its pension system, 72.8 percent of state and local pension assets were invested in municipal bonds. An additional 16.2 percent were held in US government securities. Public systems thus held 89 percent of assets in government bonds (Andrews, 1964, p. 531).[4]

The evolution of trust rules

Restricted investment powers, tax-ensured repayment, and fiscal mutualism remained the dominant framework for public-pension investment through the early 1940s, as evidenced by North Carolina's adoption of strict, government-only investment standards in 1941 (Andrews, 1964, pp. 432–436; Calvert, 1960). Yet, in the wider field of professional trusteeship, gradual but significant

[3] This assertion relies on a reading of the available meeting minutes for the Southern Conference on Teacher Retirement Systems and the National Council on Teacher Retirement, both available at the North Carolina State Archives, and the published *Report of the Annual Convention of the National Association of State Auditors, Comptrollers and Treasurers* (1945–1965). There is potential ambiguity, for example, because investment bankers also advised state fiscal officers on bond sales. Consistent with my findings in published literature (e.g. commentary in *Municipal Finance*), participants at these meeting who offered advice on pension investment remained committed to fixed income government securities until the 1950s, when professional fiduciaries gained increasing influence.

[4] Data on state and local pension investments is sparse and scattered for this period. The U.S. Census Bureau first published statistical data on state pension assets in its *State Government Finances* series in 1944 and then did so regularly after 1947. From 1951 to 1956, the census provides only total state pension fund holdings. For all other years, it lists cash, federal securities, state and local securities, and other securities (which includes federal agency bonds and FHA-insured mortgages). Andrews reproduces the available censure data, filling in the gaps with information provided by Treasury Department staff (Andrews, 1964, p. 528). Andrews also provides data for municipal pension funds. This article uses census data where available and otherwise relies on Andrews.

changes were underway. Through the 1930s, two schools of thought competed. On one side, investment professionals increasingly preferred the so-called prudent man rule, a discretionary standard developed through the common law of Massachusetts. As articulated by Justice Samuel Putnam in 1830, the trustee 'is to observe how men of prudence, discretion and intelligence manage their own affairs,' and to invest entrusted funds accordingly (*Harvard College v. Armory*, 1830, p. 446). This formulation accepted financial risk as elemental to trust investment. 'Do what you will,' Putnam wrote, 'the capital is at hazard' (p. 468). Putnam's rule carved out a niche for Boston financiers – and for the 'Boston trustee' – as a distinct financial class in the nineteenth and early twentieth centuries (Curtis, 1958; Maggor, 2017). Until the 1930s, the prudent man was also by far the minority position. Instead, most states maintained some version of the 'New York rule,' where court decisions and then state legislation limited trustees to a 'legal list' of permitted investments, in cases where the trust did not specify broader powers (*King v. Talbot*, 1869; Sligh & Taylor, 1964; Stevenson, 1953; Torrance, 1952). 'Legals' tended to be government bonds, mortgages, and corporate bonds meeting specific quality standards.

The prudent man rule and the legal list rule each embodied a distinct political economy. The prudent man, as the phrasing implied, required active fund management by a competent fiduciary. As legal historian Lawrence M. Friedman argues, the standard emerged in the context of early-republic Boston, and was meant to provide the flexibility required by multi-generational, dynastic trusts (1964, pp. 547–551). Professional asset management was expensive, suited for those who sought to protect large fortunes over long periods of time. By contrast, the legal list system better fit the fragmented financial governance under United States federalism. Legal lists enabled private actors, like small-town lawyers, to make allocative decisions without expertise. Legal lists were suitable 'particularly if the trustees are amateurs,' Friedman argues (p. 552). Most often, such trusts were short-term, established for the care of dependents, so that protecting the principal was more important than ensuring long-term growth. Likewise, at many levels of government, local officials, lacking financial sophistication, followed similarly restrictive rules when investing idle public funds. Through the 1930s, most jurisdictions maintained legal list standards to provide amateur trustees with what the Pennsylvania Supreme Court called a 'plain though narrow path' (p. 558).

When US cities and states established funded pensions, they uniformly restricted pension trustees to plain and narrow paths. Governments confined pension investments either to customized legal lists, or they linked pension management to existing categories of restricted investment, such those governing savings banks, insurance firms, or government sinking funds (Clark et al., 2003, pp. 204–214). The emphasis on safety reflected the widespread belief among pension advocates that retiree savings were more of a nature with

caretaker trusts than dynastic trusts. 'The prime requisite is safety of the principal,' observed a writer in *Municipal Finance*. 'Extent of income is secondary' (Donner, 1940, p. 10). Public pensions also lacked staff and expertise to make complex investments. 'It is impossible for a retirement system to maintain the special departments necessary in connection with other forms of investment,' wrote the manager of a Chicago city pension in 1938 (Weinberg, 1938, p. 31). As a consequence, 'Investments of the choicest type should be purchased … on which regularity of income and ultimate payment of principal is assured. The most desirable form of investment are government and municipal bonds.' Even in Massachusetts, where the prudent man rule originated, state and municipal pension funds were held to a legal list standard (Bonsall, 1937, p. 43; Tilov, 1976, p. 325).

Three factors converged to undermine the dominance of legal lists in trust investments, a transformation that would eventually reach public pension funds (Shattuck, 1951; Friedman, 1964, pp. 568–571). First, the catastrophe of the Great Depression revealed that few investments were fundamentally safe. Second, during the depression, the absolute number of permitted investments shrank considerably. Many corporations and municipalities suspended interest payments, making their securities ineligible for legal investment. As the number of securities available for trust investment declined, so did their yields. Third, beginning in the mid-1920s, and growing in the mid-1930s, a legal reform movement advanced the prudent man rule as the ideal of trusteeship. This movement was both material and ideological. Before the crash, trust beneficiaries sought higher returns accruing in equities markets. After the crash, they were likewise motivated by the declining yields of listed securities. Professional fiduciaries, a class which expanded with the growth of financial markets in the 1920s, also sought greater freedom of action, especially once New Deal regulations constrained the financial system (James, 1938; Clark, 1939).

In one sense, advocacy for the prudent man rule by financial elites reflected ideological resistance to the New Deal, an effort to shift power from government policymakers to private investment managers (Harris, 1982; Phillips-Fein, 2009). In another, it represented a business response to New Deal regulations which subdivided the financial system into competing camps. The New Deal financial reforms essentially created three rival groups of long-term investment managers: insurance firms; trust departments of commercial banks; and investment bankers. In this contest, state government adoption of prudent investor rules advantaged trust bankers, regulated by state trust law, over insurance firms, regulated by state insurance rules. Likewise, prudent investor standards directed a larger flow of funds into equity and bond markets overseen by investment bankers. Finally, attorneys specializing in estates and trusts had less at stake in the internal competition among financial professionals, but stood to gain from the professionalization of trust management.

Over the next two decades, lawyers and bankers waged a nationwide campaign to enact the prudent man rule at the state level.[5] One vector was the American Bankers Association's Trust Division, which issued a model statute in 1942 (Whyte, 1945). Another was the American Bar Foundation's Committee on Prudent-Man Rule for Trust Investments, which issued its first report in 1945 (Committee on Prudent-Man Rule of Trust Investments, 1945). The movement would transform pension investment, but its aims were much larger: proponents sought to maintain the economic value and institutional power of accumulated capital, threatened by low securities yields, higher New Deal and World War II era tax rates, and proponents emphasized – by inflationary pressure brought on by mass industrial unionization and rising wage shares (Jennett, 1955). The campaign was exceptionally successful. In 1939, only 9 states had a prudent man rule. By 1953, only twelve states *did not have* a prudent man rule (Stevenson, 1953, p. 74). This movement naturalized the prudent investor standard, establishing maximum risk-adjusted returns generated through professional asset management as a bedrock principle of US financial practice at the dawn of the postwar era. In doing so, it opened one channel for financialization, initiating a gradual but accelerating process across the era scholars associate with financial repression and control.

Declining yields

When state legislatures adopted the prudent man rule during and after World War II, they enabled the transformation of *private* pension portfolios, from fixed income securities to corporate equities. As Michael McCarthy argues, New York State's adoption of a partial prudent man rule in 1950, which enabled trustees to invest 35 percent of trust assets in equities, legitimized the transition of private pension funds from safe bonds into riskier securities (2017, p. 110). This change, McCarthy shows, occurred within a larger conflict between employers and unions over control of pension investment policies (pp. 94–121). Federal legislation, beginning with the Taft-Hartley Act (1947) largely handed control to management, which preferred to emphasize financial returns, to the detriment of socially motivated investments preferred by unions. Change in public pensions, by contrast, was slower and less contentious. States' adoption of the prudent man rule for general trust investing did not automatically change the specialized investment rules governing public pension trustees. Public trustees closely watched the private sector, but in the absence of strong public-sector unions, public trustees (state officials) and pension investment recipients (local governments) formed an insulated constituency for public investment rules under the rubric of fiscal mutualism. Although state legislatures broadened the

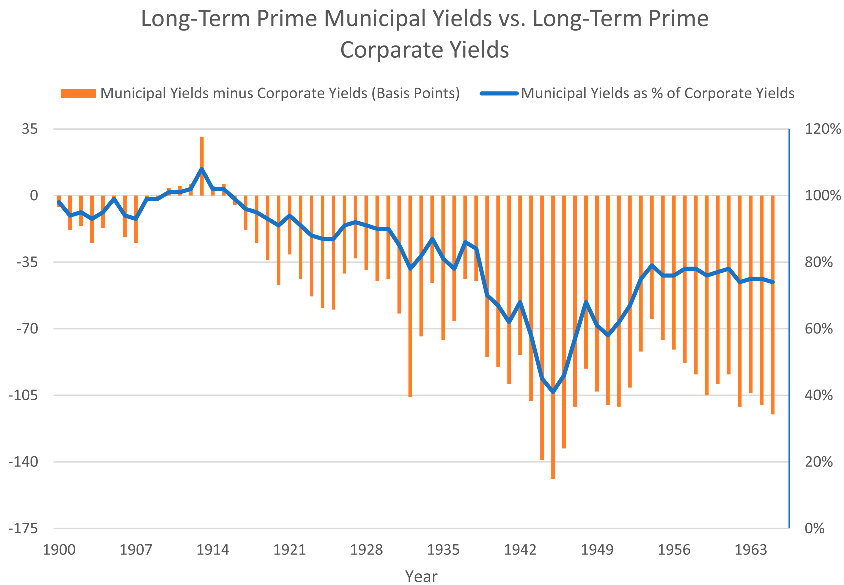
[5] There is an extensive law review commentary considering this question, including a notable contribution by future Supreme Court Justice Lewis F. Powell, Jr. (1948).

powers of private trustees, they moved more slowly to liberalize public pension investments.

Nevertheless, wartime changes in municipal bond markets gradually undermined the financial logic of fiscal mutualism. Since 1913, when the constitution's sixteenth amendment authorized federal income tax, municipal bond interest has been exempt from federal taxation. Tax differences meant that municipal bond yields tended to be lower than those of similarly risky, taxable securities. Through the 1920s, the US income tax only covered a small number of high earners, and this difference was significant, but small. State officials could justify trading slightly lower yields for the security of tax-backed interest payments and the power to support local bond issues. Moreover, municipal yields remained high enough to meet the income required by state pension rules (US Department of Commerce, 1941, p. 37). During the 1930s, however, the yield gap increased, bringing the tradeoff into sharper relief. Municipalities issued fewer bonds, while the reach of the federal income tax expanded under Roosevelt's New Deal. More high-income investors sought tax havens in a smaller municipal bond market (Jenkins, 2021). With municipal yields declining, public pensions that were authorized to do so bought mortgages and other higher-yielding investments (Bonsall, 1937; Tremaine, 1939). World War II undercut yields further. To finance the conflict, Congress instituted mass-income taxation and raised the tax rates paid by the highest earners (Sparrow, 2011). At the same time, the municipal bond market remained stagnant. Total local debt remained at similar levels in 1942 as in 1932 (Studenski & Krooss, 1963, pp. 434–435, 485). During the war, municipal bond yields fell precipitously, reaching a low of just 1.2 percent for high-grade securities. This was just 41 percent of similar corporate returns. Although the gap between corporate and municipal yields would narrow, municipals tended to yield only about 75 percent of taxable equivalents and yields remained stubbornly below 2 percent through the early 1950s (Homer, 1966, pp. 269–298; Funk, 1953; Robinson, 1960).

Declining municipal yields posed a specific problem for the funded pensions designed by insurance actuaries in the decades before the war. Public pensions guaranteed members a fixed return, usually 4 percent. When retirement systems were established, 'such rates appeared to be conservative' (Funk, 1953, p. 113). However, in a low-rate environment, state and local governments had to meet annual shortfalls with deficiency payments, shifting pension costs from investment returns to tax receipts. From the 1930s to the 1950s, public pension trustees adjusted their portfolios within the existing policy framework and sought broader investment powers. Many purchased federally guaranteed Federal Housing Administration (FHA) mortgages before World War II, and then invested heavily in US government securities during wartime. In the postwar period, state and local governments gradually liberalized pension investment authority, so that while less than 10 percent of all public pension assets were

invested in non-governmental securities before 1950, more than 40 percent were by 1960 (Andrews, 1964, pp. 526–530). Yet, public pension managers also remained committed to local investment and fiscal mutualism. While municipal assets declined as a percentage of public portfolios, from 32 percent in 1950 to 24 percent in 1960, municipal securities still increased absolutely, almost tripling, from $1.5 billion to $4.4 billion. Postwar demands for suburban infrastructure and state policymakers' concerns over costs to local governments encouraged continued public pension investment in public projects, despite the low yields offered by public securities.



Source: Sidney Homer, 'Factors Determining Municipal Bond Yields,' in *State and Local Public Facility Needs and Financing: Volume 2, Public Facility Financing* (Washington, DC: Government Printing Office, 1966), 269–298 (Glass & Vanatta, 2021, p. 438).

Still, at annual gatherings of state and local fiscal officers and in journals like *Municipal Finance* professional fiduciaries used low government yields to challenge fiscal mutualism and the investment norms established and maintained by professional actuaries. Drawing on experience managing private pension plans, commercial bankers, investment bankers, and other asset managers increasingly positioned themselves as experts on public pension investment. They emphasized that state retirees did not gain tax benefits from tax-free municipal bonds and pointed to higher returns available in corporate securities markets. Speaking at the Municipal Finance Officers Conference in 1956, Solomon Brothers Senior Partner Rudolf Smutney acknowledged that

some trustees were 'limited by statute to investments in governmental units.' He encouraged those 'operating under prudent man rules' to invest more actively in corporate securities, both bonds and equities (1956, p. 24). The same year, Roger W. Valentine of Chicago investment bank Halsey, Stuart & Co. urged attendees at the National Council on Teacher Retirement's annual meeting to diversify their portfolios, specifically toward corporate securities (Valentine, 1956). Actuaries recognized the challenge to their professional standing. At a meeting of the Southern Conference on Teachers Retirement Systems the previous year, Valentine and George Buck, consulting actuary to New York, North Carolina, and several other state funds, engaged in a pitched argument over the merits of fiscal mutualism (Buck, 1955; Valentine, 1955). Buck, who had advised public pensions since before the Great Depression, acknowledged that diversification away from government securities might offer near term rewards, but insisted that it could devastate a portfolio when financial markets turned. Nevertheless, although actuaries like Buck remained integral to public pension *management*, professional asset managers used low municipal yields to redefine public pension *investment* as a distinct field of expertise, terrain, they argued, more suited to the prudent man than fiscal mutualism.

New York

The transition from restricted investment and fiscal mutualism toward liberalization and diversification unfolded differently in different states. During World War II, the New York State Employee Retirement System maintained its extensive portfolio of municipal investments, while allocating most new funds to US government bonds (State of New York, 1942; State of New York, 1944). In the low-interest rate environment, state lawmakers lowered the guaranteed yield on pensioner savings from 4 to 3 percent, acknowledging that higher returns were not achievable under the pension's investment rules. In the immediate postwar years, New York comptrollers sought higher yields by purchasing FHA insured mortgages, increasing holdings from less than 4 percent of the portfolio in 1948 to over 20 percent in 1951 (State of New York, 1948; State of New York, 1953). They also continued to buy federal bonds. Yet, as New York's pension managers shifted the portfolio away from lower-yielding municipal bonds, new pressure for suburban infrastructure spending ensured fiscal mutualism remained the dominant framework for investing public funds through the 1950s (Glass & Vanatta, 2021).

Suburbanization and school construction placed enormous strain on the budgets and credit of what had formerly been sparsely populated rural areas. Throughout the 1950s, New York's comptrollers held down districts' borrowing costs by purchasing school bonds with pension funds. At first, comptrollers bid on school bond issues directly, competing with investment bankers (Heffernan, 1954; State Controller Wins School Issue, 1953). Because the comptroller

was ultimately responsible for the cost of local school construction through state aid obligations, and because the school bonds generated yields above the pension's legally mandated 3 percent returns, the strategy appeared to balance the interests of public employees and taxpayers. Yet the pension could not purchase all school district bonds, and investment bankers objected to being underbid by public officials. To keep the bankers in the market, comptrollers pivoted to buying long-dated, risky tranches of school bond issues. From 1953 to 1956, NYSERS purchased more than $150 million in local school bonds, increasing holdings from 2 percent to 8 percent of the portfolio. The comptroller also invested in state infrastructure through special authorities, like the state highway fund, likewise supporting public projects with public pension funds (Regional Marketing of N.Y. School District Bonds Under Study, 1957; State of New York, 1956).

Nevertheless, New York Comptroller Arthur Levitt Sr., who took office in January 1955, gradually distanced himself from fiscal mutualism. Although pension managers and commentators before World War II had viewed fiscal mutualism as a safe, self-reinforcing system, where local tax authority and public employees' interests in pension security would ensure bond repayments, Levitt reached for the new ideology of maximum financial returns. Under this standard, the interests of local governments and pensioners were not in harmony, but in conflict. In October 1956, Levitt justified his continued investment in school bonds at a luncheon hosted by the New York State Citizens Committee for the Public Schools: 'I . . . intervene directly in instances when no bids are anticipated, or when bids are properly rejected as grossly inadequate.' He explained that doing so 'accomplished the objective of maintaining a market' for school bonds. He also cautioned his audience, emphasizing his responsibility to generate maximize returns for retirees. 'I am always mindful of my obligation to the members of the Retirement System to make investments at the highest rates afforded by the market' (Levitt, quoted in Kraus, 1956). Levitt, a lawyer, framed his fiduciary duty as a singular trust to pension beneficiaries, rather than an entwined obligation of public investment for the public good.

In adopting this fiduciary language, Levitt joined a growing national movement in favor of public pension liberalization, one which received support on several fronts in the 1950s and 1960s. First, the federal expansion of social security to cover public workers (with state legislative opt-in) enabled public pensions to focus more directly on maximizing employee benefits, rather than providing employee old-age security (Holmes, 1955; Mueller, 1961; State of New York, 1955). Second, the yield differential among taxable and non-taxable securities gained increasing attention, especially after interest rates began to fluctuate more significantly following the normalization of Federal Reserve policy in March 1951 (Friedman & Schwartz, 1971, pp. 593–638). Postwar inflation also made higher returns more important. In the 1950s, state and local governments gradually liberalized pension investment powers, and state officials

forged new investment norms in regional and national meetings of state pension managers, where investment bankers, trust bankers, and other professional fiduciaries gradually became more prominent participants (Lillywhite, 1953; Jacobson, 1959).

Levitt, an active participant in these networks, spearheaded the expansion of social security to cover public workers in New York and simultaneously lobbied for pension liberalization. In 1956, the New York Legislature adopted a bill authorizing NYSERs to invest 15 percent of its assets in highly rated railroad and public utility bonds. The governor vetoed the bill, ostensibly on constitutional grounds, but likely to protect the flow of funds into school finance. After a change in administration, Levitt won authority to invest 20 percent of pension assets in such bonds in 1959. The only objection came from the New York State School Boards Association, which expressed concern that the change 'might have the effect of reducing the amount of retirement funds which the Comptroller presently invests in school district bonds' (Dyer, 1959). In 1960, lawmakers expanded NYSERS's existing authority to include all highly-rated corporate bonds, while also authorizing investment in non-FHA commercial mortgages. In promoting the 1960 legislation, which also authorized NYSERS to allocate up to 10 percent of its portfolio to common stocks, Levitt renounced fiscal mutualism. 'The purchase of tax exempt securities by tax exempt organizations is a futility and an expensive procedure,' Levitt argued, echoing professional fiduciaries in his memo supporting the 1960 legislation. Instead, 'modern techniques, modern precautions and modern safeguards can well permit the wise pension trustee to diversify considerably and safely to radically raise the income of a public pension system' (Levitt, 1960). Importantly, for Levitt, pension liberalization did not reflect an effort to shift difficult allocative decisions to the market. Rather, he sought to use finance to increase benefits for public workers while minimizing the burden on taxpayers, goals fundamentally consistent with the blended welfare state's use of private finance to advance public ends (Glass & Vanatta, 2021; Quinn, 2019).

Following pension liberalization, Levitt sought professional guidance, drawing private asset managers into NYSERS management. Given the comptroller's oversight of state and local governments, Levitt and his predecessors had been well positioned to invest in local public securities. His office, however, lacked the expertise to navigate corporate bond, stock, and real estate markets. In 1959, Levitt convened two investment committees, one focused on securities investment and the other on real estate (Levitt to Counsel Schools on Bonds, 1959). Levitt vested the committees, composed of financiers, with quasi-state authority, inviting private guidance of public investment. Levitt also retained the United States Trust Company as an adviser on the investment portfolio. Overall, these committees expanded the comptroller's institutional capacity. The real estate committee, for example, was composed of mortgage specialists primarily from New York commercial and savings banks. Through this group,

Levitt sought in-state investments, and NYSERS often funded projects built by major New York developers (including Fred C. Trump). Local investments eased the burden of credit evaluation and monitoring, while continuing to aid local economic development under a quasi-mutualist framework (Real Estate Advisory Board Minutes, 1959–1965).

The Investment Advisory Committee, composed high-ranking officers from First National City Bank, Morgan Guarantee Trust Company, and Goldman Sachs, guided Levitt in his gradual disinvestment from municipal bonds. When the committee convened in Goldman's offices in May 1959, Levitt was eager to offload school bonds and other tax-exempt securities as quickly as possible. The investment advisers urged caution. 'It was generally agreed in answer to a question by Comptroller Levitt that maximum yield should not be the determining factor at all times in the selection of investments,' the advisors indicated. They also agreed that 'the diversification of a Fund of this size cannot as a practical matter be changed abruptly' (Investment Advisory Committee Minutes, 1959–1968 [27 May 1959]). Gradually, however, the committee encouraged Levitt to selloff tax-exempt bonds and reinvest the proceeds in higher-yielding corporate securities. From a high of $355 million in state and local bonds in 1958 (32.3 percent of assets), NYSERS portfolio fell to $42 million in 1966 (1.7 percent of assets). Under the new investment regime, portfolio yields increased, and Levitt raised the state's interest commitment to retirees from 3 to 3.5 percent in 1962. The *New York Times* praised the Comptroller: 'Albany has been able to catch up on its pension problem because of steps taken in 1959 and 1960 to liberalize the investment powers of the state retirement system' (Heffernan, 1962). In New York, the era of fiscal mutualism was over. In 1965, the legislature increased the portion of corporate bonds to 40 percent, and would continue liberalization thereafter (Appendix A).

North Carolina

Through the mid-1950s, the investment portfolio of the North Carolina Teachers' and Employees' Retirement System operated under rules that limited investments to US bonds and securities of North Carolina and its political subdivisions (Teachers' and State Employees' Retirement System, 1953, p. 14). The state treasurer, an office held continuously from 1953 to 1977 by lawyer Edwin Gill, formally administered the fund, while civil servant Nathan Yelton oversaw day-to-day operations beginning in 1946 (Craven, 1958). In the early postwar years, the fund bought both municipal and federal bonds, with a gradual emphasis on higher-yielding federal bonds through the mid-1950s. In 1957, the legislature enlarged the legal list, to include still higher-yielding corporate bonds. By 1961, Yelton sought to diversify further into common stocks. Yelton was an active member of both the Southern Conference on Teacher Retirement and the National Council on Teacher Retirement, where

state policymakers constructed shared norms of public pension management (e.g. Yelton, 1954). Like Levitt, many of these policymakers sought to increase investment yields in order to increase pensioner benefits while decreasing the burden on taxpayers (Shutter, 1955). Yelton drew on pension policy networks, writing to pension managers in Wisconsin and Ohio, as well as to the Investment Bankers Association of America, seeking information on state rules authorizing common stock investment (Calvert, 1961; MacMillin, 1961). Yelton then coordinated with state lawmakers to secure legislation authorizing pension investment in equities, explicitly pairing investment liberalization with the prospect of increasing state employee benefits (Yelton, 1962). In June 1961, the legislature authorized the investment of up to 10 percent of pension assets in US equities. The authorizing legislation also established complex quality tests governing these investments, meant to ensure that the companies would make consistent dividend payments (Investment Committee, 1961).

The liberalizing legislation authorized the state treasurer to appoint an investment committee to oversee the pension's equity investments, which Yelton chaired. In October 1961, Yelton invited several investment advisors to pitch their services (Investment Committee, 1961). As they sought the fund's business, firms emphasized the work they were doing for other public funds, drawing on social capital built up within pension policy networks. 'Perhaps you had a chance to talk to people like Larry Shutter of Ohio Teachers, Doc Heath of Colorado, and Art Johnson of Minneapolis,' Moody's Investors Service Vice President Charles L. Bursik wrote to Yelton, naming other public pension managers. 'We work with all of them now' (1961). Busick had attended the National Council on Teacher Retirement meeting that year, and was 'sorry' Yelton had been 'unable to join us for lunch.' Thus, state policy networks became sites where financial professionals pushed a liberalization agenda and sold their services. Yelton and North Carolina's investment committee ultimately chose Moody's, granting the firm authority over state equity investments. This was, importantly, a constrained authority. Consistent income generation, rather than price appreciation, remained the pension's overarching goal, and Yelton instructed Moody's to focus on stocks with a consistent dividend yield above 3 percent. Further, the committee outsourced responsibility for compliance with the law's complex provisions onto Moody's, requiring the firm to certify that each stock purchase conformed with the state's investment rules.

Moody's, meanwhile, was eager for more business. In his annual reports to the investment committee, Moody's Vice President Stanley Swanson compared the state's performance to private pensions and college endowments, which earned higher returns by investing more heavily in corporate bonds and common stocks (Investment Committee, 1964). Writing to Yelton in November 1964, Moody's President Holland B. Idleman also pushed for an allocation increase. 'The experience of the Fund in its common stock portfolio has been

quite favorable,' Idleman noted. 'Therefore, we are recommending that consideration be given to a modification in the law permitting the development of a stock portfolio equivalent to 15% of the total Fund' (Idleman, 1964). Idleman told Yelton that Moody's would be happy to lend its support in convincing the state legislature. The extent of Moody's lobbying is not reflected in the archival record, but that year the legislature increased common stock allocations in line with Idleman's recommendation. With the increased allocation, Moody's also increased its fee (Investment Committee, 1965).

Thus, as in New York, the liberalization of state pension investment authority opened the door for professional asset managers to allocate state resources. They become quasi-state actors and from this position encouraged still deeper reliance on professional fiduciaries and financial market returns to underwrite public social provision. In North Carolina, pension investments in local government bonds peaked in 1958 (at $41 million, 18.6 percent of assets), were gradually sold off until 1965 ($9 million, 2 percent of assets), and then held steady thereafter (the remaining securities could only be sold at a loss). Investments in US treasury bonds dominated the portfolio until the mid-1960s. By 1966, more than 50% of North Carolina assets were held in corporate stocks and bonds, and the pension system rapidly sold off treasuries thereafter, reinvesting the proceeds in higher yielding federal agency securities and federally backed bonds, such as Ginnie Mae bonds (Appendix B).

Turning pro

By the late 1960s, public pension professionalization was in full swing. The trade magazine *Institutional Investor*, which ran its first issue in January 1967, took a keen interest in state pension plans. It critiqued laggard states – such as New Jersey – which remained committed to fixed-income investments (Hardy, 1967). The journal praised states – such as Minnesota – making the rapid transition to equities and professional management (Wright, 1968). In the late 1950s, nearly 70 percent of Minnesota's retirement assets were invested in municipal bonds, primarily to finance suburban development in Minneapolis and St. Paul (State Board of Investment, 1958, 1959). Robert Blixt, appointed executive secretary of the state investment board in early 1960, halted municipal bond purchases and pushed for significant legislative changes (State Board of Investment, 1960). In 1961, the legislature authorized 40 percent investment in corporate bonds and 25 percent in stocks. When *Institutional Investor* profiled Minnesota's pension in 1968, every fund was 'invested practically to the legal limit' (Wright, 1968, p. 54). Blixt also convened an advisory committee to guide his common stock investments. The committee 'has no legal standing but great influence,' *Institutional Investor* noted, adding that its 'recommendations never have been rejected' (p. 54). Likewise, California hired Moody's in 1960 'to review its investment policies' (Sederberg, 1969, p. 90). Moody's,

unsurprisingly, recommended common stocks (PERS Investment Committee, 1961). Yet it took until 1966 for pension managers to obtain legislative authorization. Eighteen months later, the magazine gushed, California pensions owned more equities than the funds of any other state (Sederberg, 1969, p. 90).

Across the country in the late 1950s and early 1960s, public pension managers, with the support of state legislatures, ushered in a fundamental transformation of public investment. Funds almost uniformly abandoned the municipal investments that supported fiscal mutualism. Instead, public funds shifted into corporate stocks, bonds, and other private investments. They turned to finance to support one strand of the postwar social contract, providing greater benefits for state workers at a smaller cost to taxpayers. Public fiduciaries channeled state investments into private capital markets in service of social welfare provision, granting new power and authority to private financiers in the process. Importantly, fund managers still faced considerable constraints. Consistent income and security remained fundamental values. State pensions operated under asset allocation limits and quality rules. In important ways, the financialization of public pension systems remained partial and incomplete.

Convinced of the righteousness of their professional revolution, financiers expressed frustration when public pensions would not liberalize fast enough. In 1969, after an actuarial evaluation of NYSERS portfolio found significant variation in common stock returns since investments began in 1961, Levitt sought input from NYSERS's primary banker, United States Trust Company. 'All other things being equal, performance only somewhat better than the Dow Jones Industrial Average over this period is not particularly impressive compared with results we and other trustees of corporate pension funds have achieved,' wrote Senior Vice President Frank C. Grady. 'We are not apologetic, because all other things have not been equal.' Grady went on to criticize the investment restrictions governing the fund: 'unless these restrictions are substantially reduced, we question whether a fund of this size can be expected to outperform the Dow Jones Average by very much over an extended period of time' (1969). Seeking a second opinion from another Wall Street banker, Levitt got little solace. 'It is undeniable that the restrictions on the Retirement Fund's investments in common stocks severely limit the Trustee's discretion,' Levitt's correspondent wrote, 'my earlier comments to you were based on the assumption that the Fund has some limited discretion under the prudent man exemption' (Pfeffer, 1969). While Levitt had strongly endorsed pension liberalization in 1960 as embracing 'modern techniques,' which would 'permit the wise pension trustee … to radically raise the income of a public pension system,' by the end of the decade, he was woefully behind the times (Levitt, 1960). His bankers let him know it.

Conclusion

Public pension managers abandoned fiscal mutualism in the 1950s and 1960s in favor of more diversified investments in corporate securities and mortgages. Because they lacked expertise and institutional capacity to manage complex and risky investments, they sought professional investment advice. By bringing in professional asset managers, states granted those professionals authority over public investment decisions. Professional fiduciaries were then able to influence policy from inside the state, securing allies within public pension bureaucracies who lobbied for further pension liberalization. That public pension financialization was only partially realized by the early 1970s is significant. But the prudent men had momentum on their side. Congress incorporated prudent investor rules into the Employee Retirement Income Security Act (ERISA) in 1974, a national legislative change that previous scholars identified as the beginning of public pension financialization in the United States (Montagne, 2012). The law, however, is best understood as the end of the process documented here. Crucially, state policymakers transformed public pension investment largely without input from organized state workers, who lacked rights to collectively bargain before the 1960s. When states began to grant those rights, professional fiduciaries were already embedded in public pension systems. Organized labor gained power to negotiate for increased pension benefits, which in turn placed further pressure on investment managers to secure high returns. Financial dependence encouraged further financial dependence, so that in future years, 'pension funds became embroiled in a succession of largely discrete speculative waves or fads' (Langley, 2004, pp. 544–545).

Ultimately, the story of public pension financialization emphasizes the extent to which US public welfare policies have always been deeply reliant on financial markets and financiers. The current literature on financialization posits a significant break in the 1970s, when financiers and financial logic came to dominate the state, and when state policymakers ceded difficult allocative decisions to financial markets (Krippner, 2011). Private finance, however, has always been elemental to the fiscal apparatus of US social provision. Although the ideology of fiscal mutualism tied public investment to public purposes, the requirement for yield still shaped state investment decisions, while the reliance on private markets created space within state governments for professional asset managers to offer investment liberalization as the solution to low municipal bond yields. And although the rise of the prudent man had its origins outside the state pension systems, the purposeful encroachment by professional asset managers onto the field of public pension investment created paths for new investment ideologies to reshape state investment policy long before the so-called financial turn.

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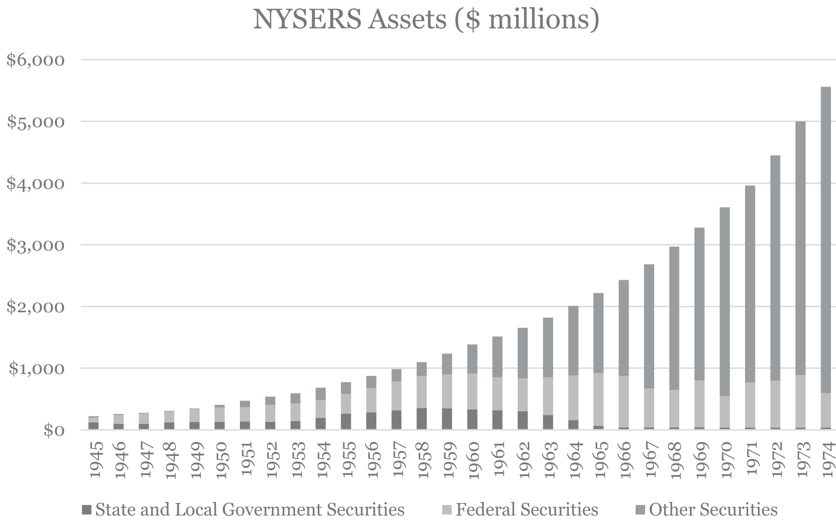
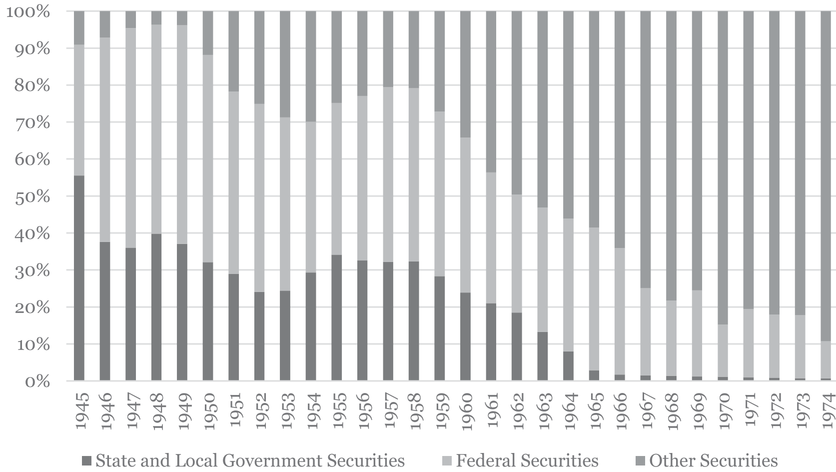
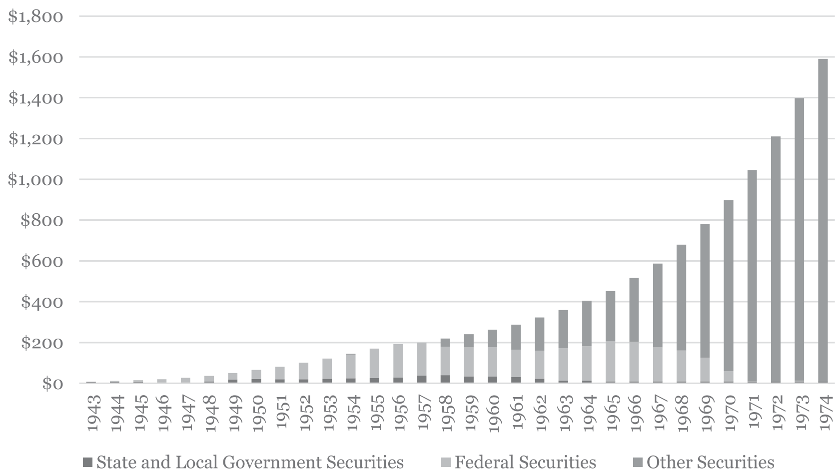
Appendix A: New York State Employee Retirement System Assets, 1945–1974

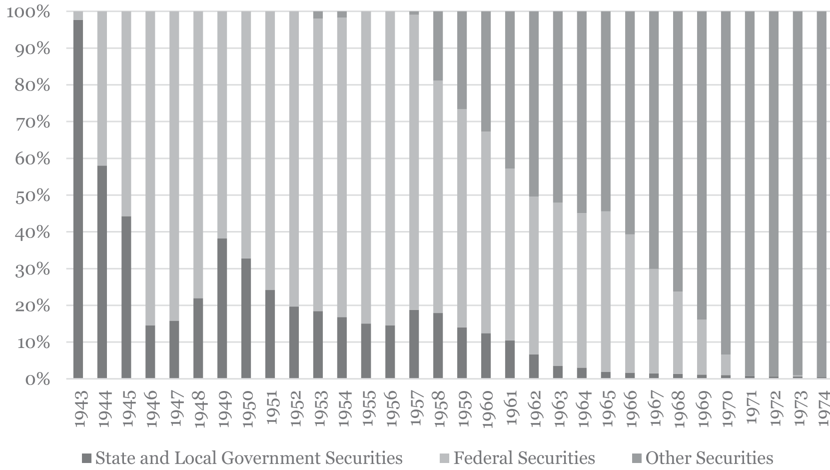




Source: State of New York, Annual Report of the Comptroller.

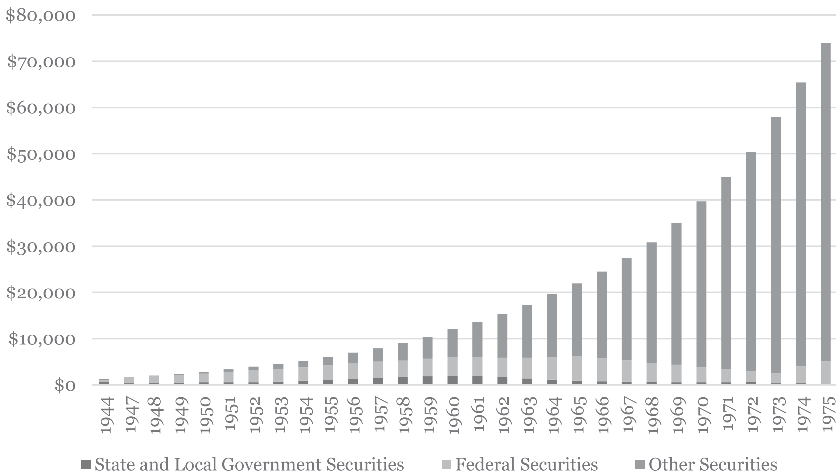
Appendix B: North Carolina Teachers' and State Employees' Retirement System Assets, 1943–1974

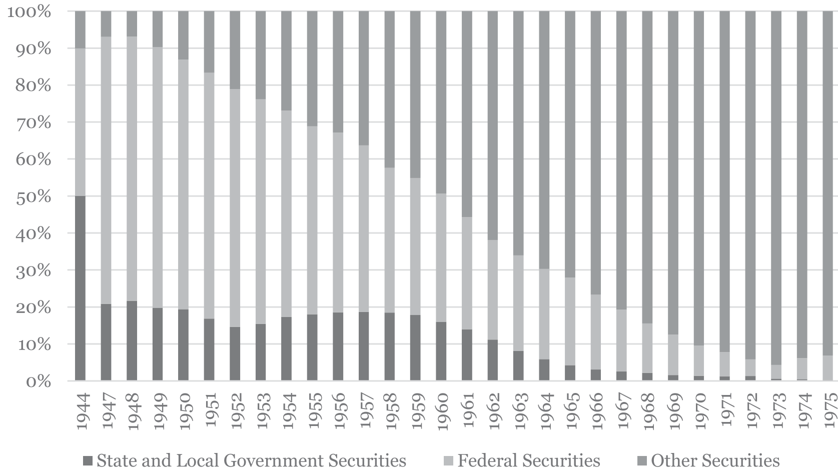




Source: State of North Carolina, Biennial Report of the Treasurer; State of North Carolina, Annual Report of the State Auditor.

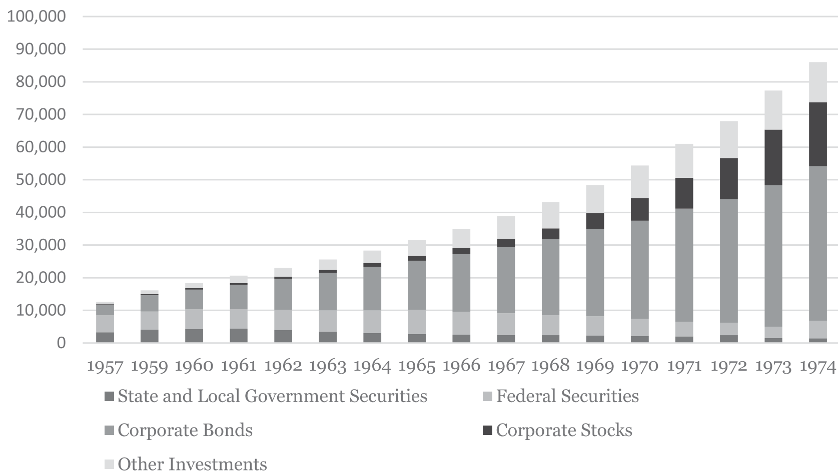
Appendix C: All State-Level Pension Assets, 1944, 1947–1975

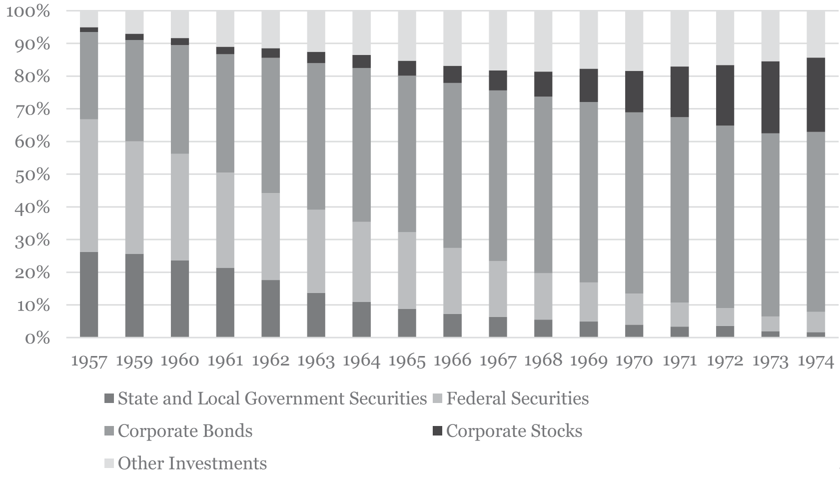




Source: US Census, *State Government Finances*, supplemented by Andrews, 'Noninsured Corporate and State and Local Government Retirement Funds in the Financial Structure.'

Appendix D: All State and Local Pension Assets, 1957–1974





Source: US Census, Annual Survey of Public Employment & Payroll, Historical Data, https://www.census.gov/programs-surveys/apes/data/historical_data.html.