American Asset Manager Capitalism

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Abstract

Who holds power in corporate America? Scholars have invariably answered this question in the language of ownership and control. This paper argues that tackling this question today requires a new language. Whereas the comparative political economy literature has long treated dispersed ownership and weak shareholders as core features of the U.S. political economy, a century-long process of re-concentration has consolidated shareholdings in the hands of a few very large asset management companies. In an historically unprecedented configuration, this emerging asset manager capitalism is dominated by shareholders that are fully diversified 'universal owners', while lacking direct economic interest in the performance of portfolio companies. The paper reconstructs the history of this institutional configuration and examines the fault lines of the new political economy of corporate governance.

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1. Introduction

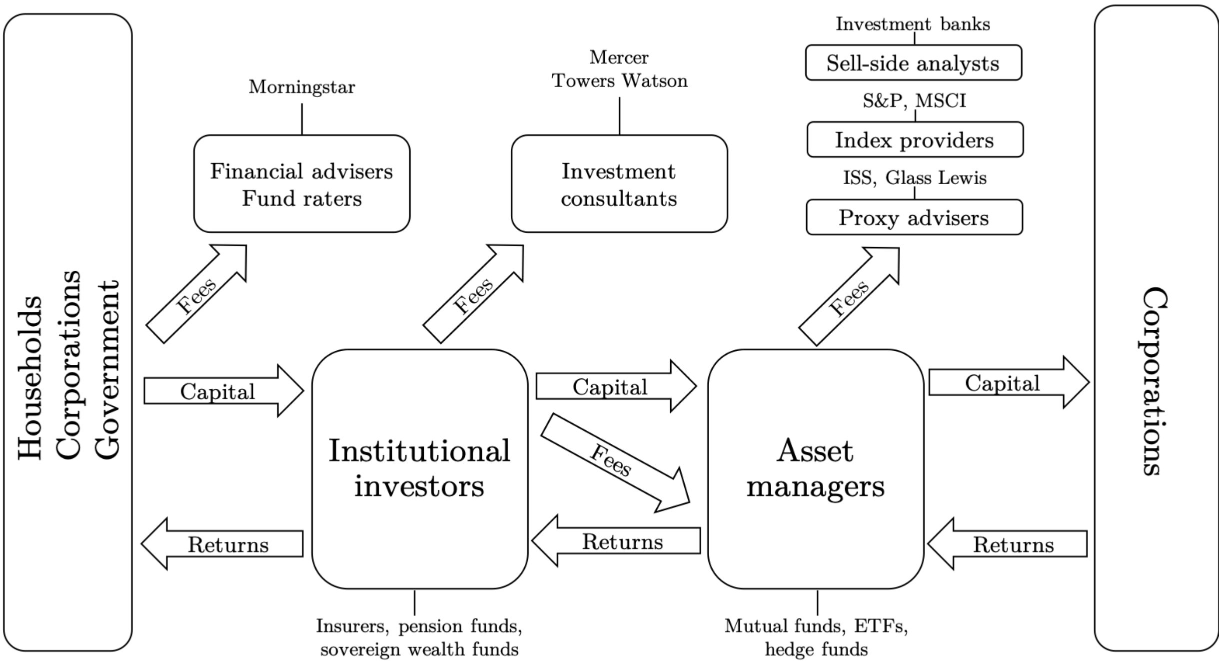
Who holds power in corporate America? The question is central for students of American political economy. Students of corporate governance have invariably phrased their answers in the language of ownership and control. This language stems from Berle and Means (1932), who observed that trust-busting policies and the diversification of robber baron fortunes had dispersed stock ownership in the United States, while concentrating corporate control in the hands of a small class of managers.[1] Jensen and Meckling's (1976) agency theory, while reiterating the notions of shareholder dispersion and weakness, conceptualized shareholders as principals – the only actors with a strong material interest in the economic performance of the corporation. Offering a simple solution to what Berle and Means had considered a complex political problem, agency theory reduced corporate governance to the problem of protecting outside minority shareholders against "expropriation" by insiders, namely corporate managers and workers (La Porta et al. 2000: 4). Notwithstanding the political chasm between these two pairs of authors – New Deal liberals versus pro-market libertarians – the field of corporate governance melded these ideas into a single Berle-Means-Jensen-Meckling (BM-JM) ontology – the United States as a society in which shareholders, while dispersed and weak, are the owners and principals of the corporation. This ontology underpins 'shareholder primacy' (or 'shareholder value'), which in the late 20th century emerged as the dominant corporate governance regime. This regime is geared towards three goals – ensuring a market for corporate control, allowing shareholders to monitor managerial performance, and aligning the material interests of managers with those of shareholders (Fourcade and Khurana 2017: 355).[2] So complete was its victory that two prominent legal scholars announced the "[t]he triumph of the shareholder-oriented model of the corporation" and the "end of history for corporate law" (Hansmann and Kraakman 2001: 468).

[1] For an important earlier discussion of ownership and control, see Veblen's (1923) *Absentee Ownership*.

[2] While agency theory did not *cause* the restructuring of corporate governance (Knafo and Dutta 2020), it provided theoretical legitimation for the shareholder value model (Jung and Dobbin 2015).

Political economists, while critical of the regressive distributive consequences of shareholder primacy (Lazonick and O'Sullivan 2000), have largely taken the BM-JM ontology at face value. The ideas that shareholders in the United States are dispersed and weak but are nonetheless the owners and principals of the corporation have been absorbed by the comparative political economy (CPE) literature on corporate governance (Aguilera and Jackson 2003; Gourevitch and Shinn 2005; Hall and Soskice 2001; Roe 1994).[3] While this has always been problematic, the rise of asset managers has dramatically transformed the investment chain – see Figure 1 – pulling the empirical rug from under the BM-JM ontology. The present paper maps this transformation and contributes to the task of putting the political economy of corporate governance on a new conceptual foundation. It argues that a 'Great Re-Concentration' of U.S. stock ownership that began in the mid-20th century and accelerated dramatically at the beginning of the 21st century has brought about a new corporate governance regime, *asset manager capitalism* (2016).

Figure 1: The equity investment chain



Source: Author's own illustration.

[3] For notable exceptions, see Davis (2008) and Deeg and Hardie (2016).

This paper seeks to come to grips with the empirical observation that today the "Big Three" asset managers – Vanguard, BlackRock, and State Street Global Advisors – together hold more than 20 per cent of the shares of the average S&P 500 company (Backus, Conlon, and Sinkinson 2019: 19). Four hallmarks characterize this new regime. First, U.S. stock ownership is *concentrated* in the hands of giant asset managers. Second, due to the size of their stakes, asset managers are, in principle, *strong* shareholders with considerable control over corporate management. While this divergence from 'dispersed and weak' alone would require CPE to rekindle its conceptual toolkit, two additional features distinguish asset manager capitalism from previous stock ownership regimes. The third hallmark is that large asset managers are "universal owners" that hold fully *diversified* portfolios (Hawley and Williams 2000). Finally, as for-profit intermediaries with a fee-based business model, asset managers hold *no direct economic interest* in their portfolio companies. Clearly, the BM-JM ontology does not map onto this new institutional landscape. Whereas the shareholder primacy regime was geared towards maximizing the value of the shares of individual firms, asset manager capitalism is geared towards maximizing the aggregate value of assets under management.

The paper is organized as follows. The next section gives a big-picture overview of the evolution of U.S. stock ownership and corporate governance regimes. Section 3 traces the policies and economic developments behind the growth of the asset management sector since the Revenue Act of 1936. Section 4 takes a closer look at the questions of universal ownership and of assets managers' economic interests. Section 5 explores the political economy of asset manager capitalism at the firm, sectoral, and macroeconomic levels, as well as in the realm of politics. The conclusion highlights broader implications for the field of (American) political economy.

2. Stock ownership and the investment chain in historical perspective

The historical trajectory of U.S. stock ownership is U-shaped. A period of high-concentration in the late 19th century gave way to a period of highly dispersed share ownership in the mid-20th century, which has been followed by a long (and ongoing) period of re-concentration.

By the end of the 19th century, corporate America was largely owned and controlled by a handful of corporations and banks, in turn owned and controlled by the "blockholder oligarchy" formed by figures such as J.P. Morgan, Andrew Carnegie, and John D. Rockefeller (Gourevitch and Shinn 2005: 244). Table 1, which depicts the evolution of the U.S. investment chain, highlights the hallmarks of this "finance capitalism" (Hilferding 1985 [1910]). Share ownership was concentrated in the hands of a few oligarchs who exercised direct control as owner-managers. Their portfolios were, by today's standards, undiversified, giving them a strong stake in the economic fortunes of their corporate empires.[4]

Table 1: Stock ownership, corporate governance regimes, and macro regimes

Dominant Owners	**Robber barons**	**Households**	**Pension funds**	**Asset managers**
Concentration of **ownership**	High	Low	Medium	High
Control of shareholders	Strong	Weak: exit	Medium: exit or voice	Potentially strong: voice, no exit
Portfolio **diversification**	Low	Low	Medium	High (indexed)
Interest in firms	High	High	Medium	Low
Corp Gov Regime	Finance capitalism	Managerialism	Shareholder primacy	Asset manager capitalism
Macro Regime	Monopoly capitalism	Fordism	Knowledge economy	

Several factors contributed to the dissolution of the concentrated ownership structure of the Gilded Age: robber barons issuing new shares to finance their takeover drives; Progressive Era anti-trust laws; war-related federal taxes forcing robber barons to sell more shares; and, finally, the stock market boom of the 1920s, which turned millions into the stockholders (Means 1930; Ott 2011). Stock ownership became dispersed. By 1945, households held 94 per cent of U.S. corporate equity (Figure 2 below).[5] The weakness of these dispersed shareholders concentrated power in the hands of the managers of increasingly large corporations. Together with strong trade unions, a Keynesian economic policy paradigm, and the Bretton Woods system,

[4] Gourevitch and Shinn (2005: 243) note that this "blockholder trust model … made the United States look rather like Germany at the turn of the last century". What Morgan and Carnegie were to the former, Deutsche Bank and Allianz were to the latter (Windolf and Beyer 1996).

[5] Note that U.S. share ownership is highly skewed towards the top of the wealth distribution (Figure 5 below).

the corporate governance regime of "managerialism" was a key pillar of Fordism (Chandler 1977; Fligstein 1990; Hacker and Pierson 2016; Schwartz forthc.).

While prescient in their warning of excessive corporate power, Berle and Means were wrong about the longevity of dispersed stock ownership. Their failure to foresee the Great Re-Concentration is hardly surprising, however. Whereas the late 19th-century concentration was the result of owner-managers seeking monopoly, 20th-century concentration was driven by developments *within the investment chain.* The first development was the emergence and growth of capital-pooling institutional investors (Fichtner 2020), notably pension funds, whose direct equity holdings reached an all-time high of 27 per cent in 1985 (Figure 2). This stock ownership regime was dubbed "investor capitalism" (Useem 1996) or "pension fund capitalism" (Clark 2000). Its hallmarks were moderately dispersed stock ownership; institutional investors large enough to be heard (voice) yet small enough for their ownership stakes to be liquid (exit); and moderate diversification among not-for-profit institutional investors with enough 'skin in the game' to take a strong interest in their portfolio companies.

The investment chain lengthened again when, starting in the 1980s, institutional investors increasingly invested via outside asset managers.[6] This category comprises providers of hedge, private equity, and venture capital funds, but the bulk of capital is invested via mutual funds and exchange-traded traded funds, which are the focus of this paper.[7] U.S. stock ownership has shifted from dispersed to concentrated due to the sheer size of a few mutual fund and ETF providers, which today act as strong minority shareholders in virtually every major listed corporation. The political economy of this emerging asset manager capitalism is complicated by the facts – discussed in section four below – that these newly dominant shareholders combine

[6] 'Asset management company' here refers to pure asset managers such as BlackRock (publicly listed) and Vanguard (mutually owned by the shareholders of its funds), as well as to the asset management arms of insurers (such as Allianz) and of banks (such as J.P. Morgan Chase).

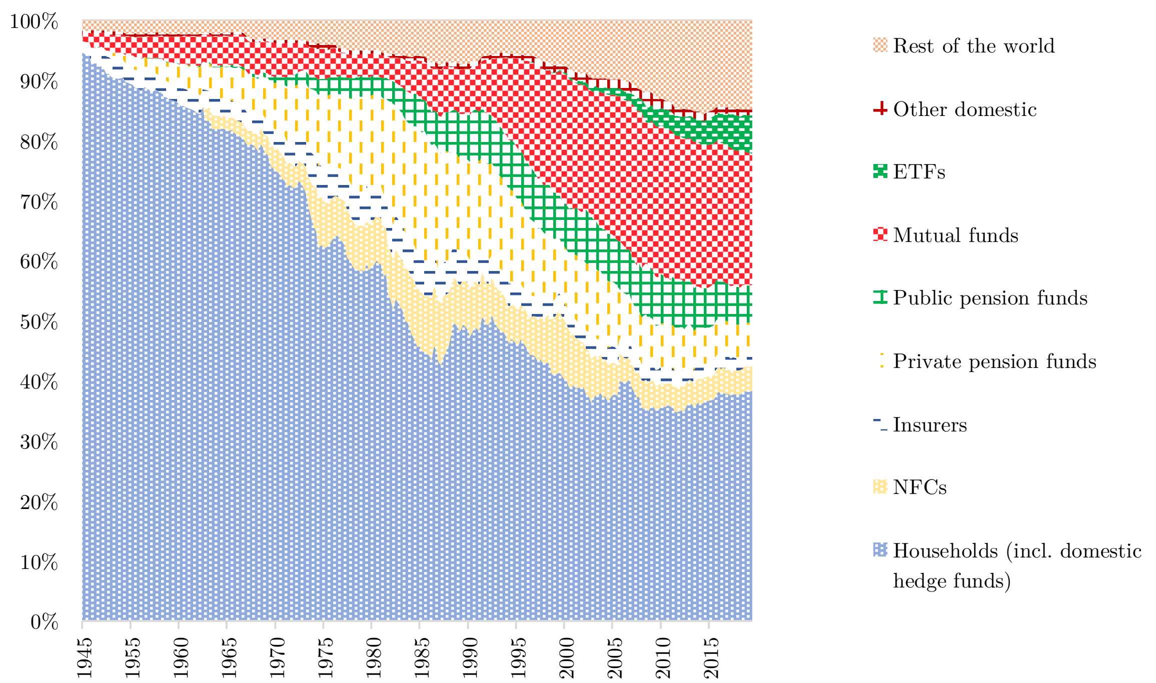
[7] Private equity and venture capital funds are excluded by this paper's focus on holdings in *listed* companies. The hedge fund sector, which does invest in listed companies, is small by comparison, managing USD 3.2 trillion globally (BarclayHedge 2020). However, hedge funds multiply that into assets several times larger via leverage. For comparison, BlackRock alone manages more than USD 7 trillion.

large stakes with full diversification, and that they operate on a for-profit, fee-based business model geared towards maximizing assets under management.

3. The Great Re-Concentration

The 'Great Re-Concentration' is depicted in Figure 2 – a seven-decade period during which shareholdings shifted from households to pension funds and, more recently, to asset management companies. During the first phase of the Great Re-Concentration (1936–2000), tax rules for mutual funds, retirement legislation, and financial regulation fed the growth of asset management in general. Since 2000, the dominant dynamic has been consolidation *within* the asset management sector.

Figure 2: The structure of U.S. corporate equity ownership, 1945–2019



Source: Financial accounts of the United States (Z.1).

Note on types of equity: The data comprises equity issued by U.S.-listed foreign corporations (21 per cent of the total) and closely held equity (15 per cent of the remaining *domestic* equity). The total dollar value of U.S. corporate equity by year-end 2019 was USD 55 trillion.

Note on holders of equity: The recent expansion of the categories 'rest of the world' and 'households' hides the growth of private equity funds and hedge funds. (1) Closely held equity has increasingly become dominated by private equity funds, subsumed here under 'households'. By a rough estimate, private equity funds hold 2-3 per cent of U.S. corporate equity. (2) Hedge fund holdings (roughly 10 per cent of the total) are displayed as assets of households (for domestic hedge funds) or of the rest of the world (for foreign hedge funds, including U.S. funds registered in offshore jurisdictions) (see www.federalreserve.gov/releases/Z1/z1_technical_qa.htm).

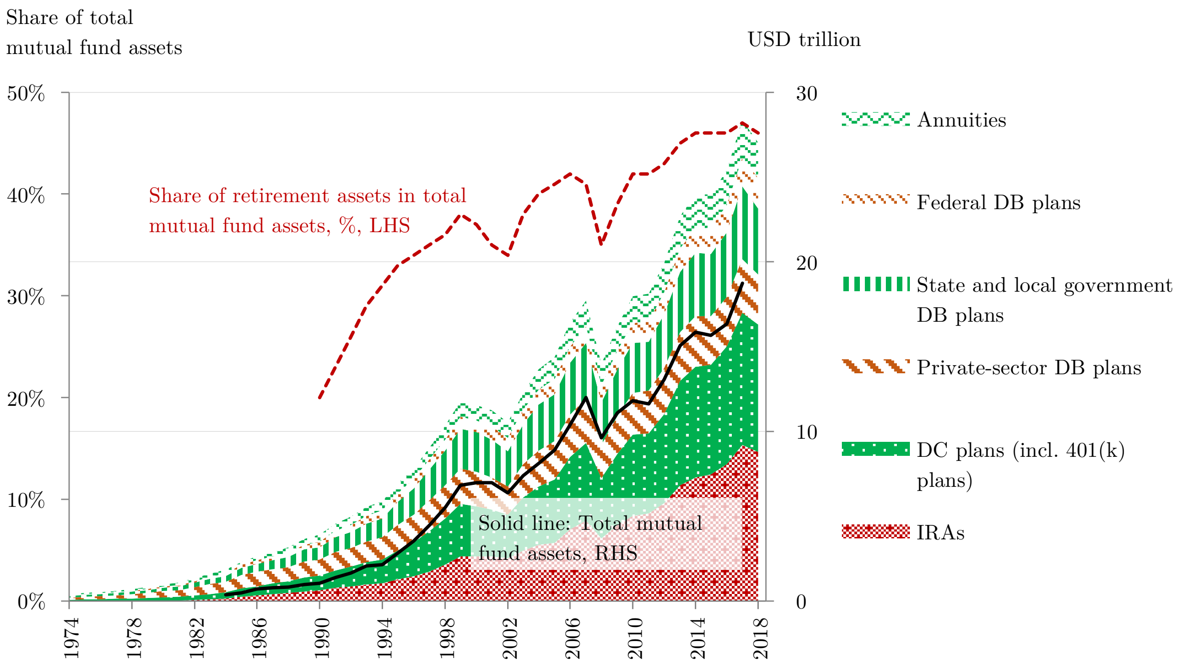
Feeding the growth of asset management, 1936–2000

Between the end of World War II and the turn of the 20th century, the share of corporate equity held directly by households declined steadily, falling below 40 per cent after the bursting of the dotcom bubble in 2000. This decline was the flipside of the pooling of savings via collective investment vehicles, which increased their share of equity holdings from virtually zero in 1945 to 42 per cent in 2000. While there is no lack of histories of this development, existing accounts tend to downplay the difference between not-for-profit institutional investors such as pension funds and endowments on one hand, and for-profit asset management companies on the other. Comparative political economists, focused on the political coalitions between owners, managers, and workers, have largely treated the investment chain as a black box (Gourevitch and Shinn 2005; Goyer 2011).[8]

This section focuses on how and why the growth of retirement assets spurred the growth of the asset management sector. The big picture can be read off Figure 3. Total mutual fund assets (solid black line) have grown in lockstep with retirement assets since 1984. That growth accelerated when defined contribution (DC) plan and individual retirement account (IRA) assets took off in the mid-1990s. The share of retirement assets in total mutual fund assets doubled over the course of the 1990s, from 20 to 40 per cent (dotted red line). This share has recently plateaued at 45 per cent, whereas mutual fund assets have continued to rise, indicating the growing importance of (non-retirement) household savings as well as foreign investment in U.S. mutual fund shares.

[8] As a result of this black boxing, comparative political economists interpreted the sell-off of European (and Japanese) blockholdings to Anglo-American investors in terms of Europe moving towards the liberal-market-economy model of dispersed ownership (Beyer and Höpner 2003; Deeg 2009). This obscured the simultaneous, countervailing LME trend of *growing* ownership concentration associated with the rise of asset managers.

Figure 3: Retirement assets and their share of mutual fund assets, 1974–2018



Sources: Investment Company Institute; Department of Labor.

The explosive growth of mutual fund assets was not preordained. Mutual funds are legal constructs built, over a long period, on regulatory statutes and on various pieces of tax and retirement legislation. The first such piece was the *Revenue Act* of 1936, which allowed mutual funds to pass dividends on to investors untaxed, thus ensuring that fund shareholders were not disadvantaged vis-à-vis direct stock investors (Fink 2008: 28). Congress made this tax privilege conditional on mutual funds owning no more than 10 per cent of the voting stock of any corporation, with the explicit goal of preventing them from acquiring controlling stakes (Fink 2008: 28). Today, the tax exemption lives on in the Internal Revenue Code (Coates 2009: 596).[9]

Fund size continued to be key issue in the run-up to the *Investment Company Act* of 1940. While mutual funds supported the idea of legislation, they opposed certain provisions in the original bill drafted by the Securities and Exchange Commission (SEC). Arguing that investment companies selling securities into a falling market had been one of the sources of the 1929 crash and seeking to avoid such “runs” on

[9] This rule applies at the level of the *individual* fund. Breaches of this threshold by fund *families* – an imminent scenario for BlackRock or Vanguard – thus fall within the letter of the 1936 law but may conflict with its spirit.

mutual funds in the future, the SEC was proposing to limit their size to USD 150 million. The mutual fund lobby strongly opposed the size limitation and, rejecting the bank run analogy, succeeded in keeping it out the final version of the bill (Fink 2008: 39). Section 14(b) of the Investment Company Act, which authorized the SEC to re-examine future increases in fund size, was never activated.

The Revenue Act and the Investment Company Act established the legal foundation for the existence of mutual funds without, however, doing much to feed their business.[10] The tide of retirement assets that ultimately flooded the asset management sector was the cumulative effect of four subsequent pieces of retirement legislation: Taft-Hartley (1947), ERISA (1974), the 401(k) provision (1978), and universal IRAs (1981). Long before Peter Drucker warned of "pension fund socialism" coming to America (Drucker 1976), the anti-labor *Taft-Hartley Act* of 1947 prohibited employers from contributing to union-controlled pension funds (McCarthy 2017: 95-100). The *Employment Retirement Income Security Act (ERISA)* of 1974, which brought the riskiness of private pension promises – hitherto negotiated between employers, unions, and employees – under federal government regulation (Wooten 2004: 3), further weakened labor control over the investment of retirement assets. It did so by tightening a fiduciary requirement originally introduced by Taft-Hartley. Whereas the latter had stipulated merely that pension assets be invested to the "exclusive benefit" of plan beneficiaries, ERISA's "prudent person rule" (drawing on rules developed by the New York State legislature during the 1950s) required that fiduciaries act "with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use" (McCarthy 2017: 110-11). In 1979, the Department of Labor specified that prudence was a matter not of individual securities but of portfolio construction, thus tying fiduciary duty to the prescriptions of modern portfolio theory (Montagne 2013: 53). By narrowing the prudent person rule down to best practice as it prevailed in the financial sector, ERISA created a

[10] Defined benefit plans, which then did not invest in mutual funds, prevailed in the corporate retirement market, while the small market for defined contribution plans was dominated by banks and insurers (Fink 2008: 113).

strong incentive for retirement plan managers to share fiduciary responsibility with professional, external asset managers (Montagne 2013; van der Zwan 2017).[11]

For all of the mutual fund industry's legislative victories, its growth had stalled amidst the 1970s bear market (Clowes 2000: 192). Growth resumed in a big way with the addition of section 401(k) to the Internal Revenue Code in 1978 and the Economic Recovery Tax Act of 1981. Although the mutual fund industry had not lobbied for the 401(k) provision – the DC-plan implications of which were 'discovered' only in 1980 by Ted Benna, and confirmed by the IRS in 1981 (Hacker 2019: 110) – it proved a godsend for the industry. In contrast to the "mostly inadvertent" birth of the 401(k) provision (ibid.), the "universal IRA" – which allowed annual tax-deductible IRA contributions of up to USD 2000 – had been invented by, and lobbied for, the Investment Company Institute (Fink 2008: 125). In the 1980s, IRA and DC assets became the fastest-growing segments of the retirement market, and today account for two thirds of all retirement assets, and for an even larger share of retirement assets invested in mutual fund and ETF shares.[12]

By the year 2000, a series of tax rules, retirement laws, and financial regulations had helped create a USD 7 trillion mutual fund sector that managed USD 2.6 trillion of retirement assets (Figure 3). The *dominant shareholders*, however, were still the public pension funds, which campaigned aggressively for the corporate governance reforms that institutionalized the shareholder primacy regime, including independent directors, destaggered boards, and proxy voting (Davis and Thompson 1994; Webber 2018: 45-78). However, even the largest holdings of the largest public pension funds barely reached 1 per cent of a corporation's market capitalization in the 1990s. Dispersed share ownership thus remained a hallmark of pension fund capitalism.

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[11] The case of fiduciary duty under ERISA shows that new legislation did not always benefit the mutual fund sector. On the basis of diversification rules under the Investment Company Act, ERISA provided that mutual funds did not automatically become fiduciaries when retirement plans invested with them. While advantageous for mutual funds in the first analysis, it turned out that trustees of smaller DB pension plans *wanted* to share their fiduciary responsibility with their asset managers and therefore avoided mutual funds (Clowes 2000: 192).

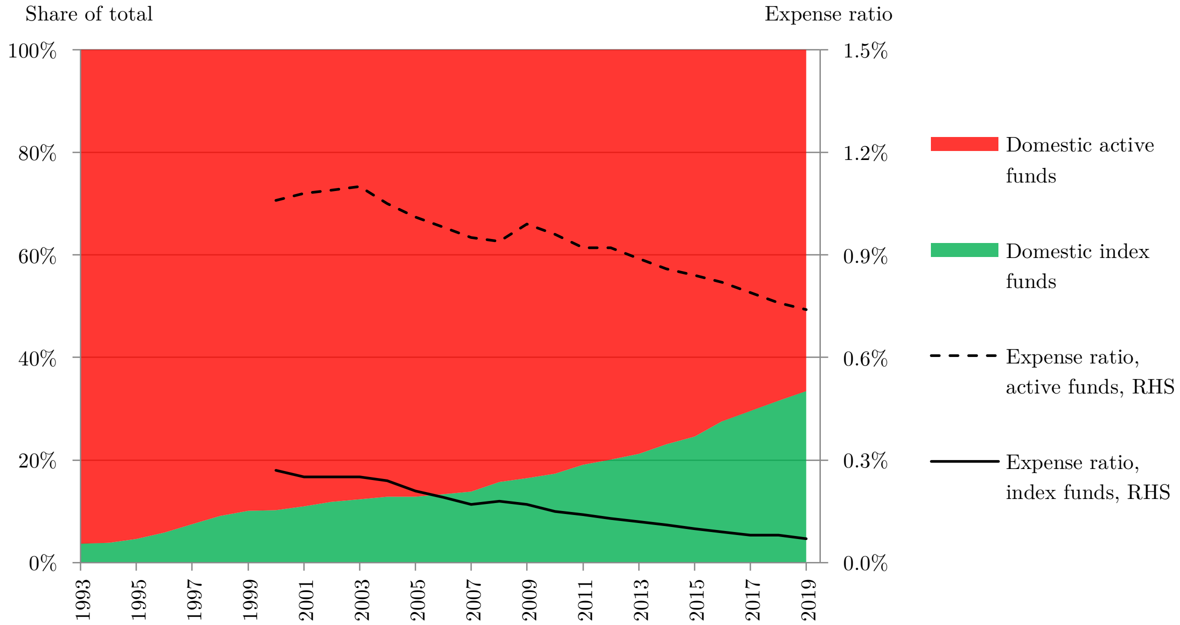
[12] The "risk shift" (Hacker 2019) from employers to employees was crucial not least because modern portfolio theory prescribed conservative, bond-based investment strategies for corporations running DB pension plans. Fischer Black, the father of portfolio theory, travelled across the country in the 1970s warning corporate treasurers of the risks of moving DB plan assets into equities (Mehrling 2005: 222).

Consolidation within the asset management sector, 2000 – present

The aggregate stock ownership data in Figure 2 suggests that little has changed over the last twenty years, bar a modest expansion of foreign ownership, continued growth of mutual funds, and the emergence and growth of exchange-traded funds. In reality, the share of equities held by institutional investors has risen significantly above the 50 per cent level displayed in Figure 2 (see notes beneath Figure 2). For S&P 500 companies, the institutional ownership share stands at 80 per cent, up from 60 per cent in 2000 (Backus, Conlon, and Sinkinson 2019: 15). This continued growth of the *overall* asset management sector cannot, however, explain the jump in the largest asset managers' average ownership stakes from 1 per cent in the 1990s to almost 10 per cent today. Indeed, in contrast to the slow growth of the underlying asset pool in the late 20th century, the crucial dynamic in the 21st century has been *concentration within* the asset management sector. The ETF market today is a global oligopoly in which three firms – BlackRock (39%), Vanguard (25%) and SSGA (16%) – have a combined market share of 80 per cent (Kim 2019). By another metric, the largest one per cent of asset managers control 61 per cent of the assets managed by the sector – 243 times that of the bottom 50 per cent of asset managers, more than a two-fold increase since 2010 (Riding 2020).

While the contingency of the 2008 financial crisis played an important role, concentration in the financial sector has been driven by some of the same forces as concentration in labor and product markets (Ansell and Gingrich forthc.; Naidu forthc.; Rahman and Thelen forthc.; Schwartz forthc.). Although asset managers compete on performance and cost, the cost of investing via for-profit asset managers is high. Between 1980 and 2007, asset management revenues (mutual, money market, and exchange-traded funds) quintupled from about 0.2 per cent to just under 1 per cent of GDP (Greenwood and Scharfstein 2013: 9).. Casting a bright light on remuneration in the financial sector generally, the financial crisis of 2008 accelerated the shift from expensive active funds into low-cost index funds, which had been underway since the early 1990s (Figure 4) (Braun 2016). The cost difference between active equity funds and index equity funds (traditional and ETFs) is significant, and has increased over time. The expense ratio of active funds was four times higher than that of index funds in 2000 and is nearly ten times higher today (Figure 4). In the United States, this cost advantage has been reinforced by a tax loophole for ETFs (Poterba and Shoven 2002).[13] In addition, the financial crisis dealt a heavy blow to the banking sector. While asset managers benefitted indirectly from distrustful investors moving money out of the banking sector, BlackRock in particular gained from its June 2009 acquisition of the asset management arm of Barclays, which included iShares, then the world's leading ETF brand (Mooney and Smith 2019).

Figure 4: Domestic active equity funds versus domestic index equity funds (incl. ETFs), relative market share (1993–2019) and expense ratios (2000–2019)



Source: Investment Company Institute.

Note: Expense ratios are asset-weighted averages.

If the contingency of the financial crisis made investors more cost-sensitive, structural forces have helped translate that focus on cost into accelerated concentration. Generally speaking, as in other sectors of the knowledge economy, intellectual property rights have become more important for financial sector firms

[13] The key financial innovation that allows for ETFs shares to be traded continuously throughout the trading day (unlike traditional index funds) is an "in-kind" share creation and redemption mechanism. By using stocks that have appreciated for in-kind redemptions, fund providers have been able to significantly reduce the distribution of capital gains to investors, thus avoiding capital gains taxes. Taking this one step further, Vanguard has used its ETFs to 'launder' the capital gains even of its regular mutual funds and even holds a patent on this technique (Mider, Massa, and Cannon 2019).

(Schwartz 2017). More specifically, asset management has much in common with digital platform industries, where network effects and scale economies drive monopolization (Kenney and Zysman 2016; Rahman and Thelen 2019; Srnicek 2017).

Three elements underpin the "almost unlimited scale economies" of these "digital asset management platforms" (Haberly et al. 2019: 169). First, the fixed cost structure of ETFs – a relatively expensive financial infrastructure on the back-end combined with constant marginal costs – creates conventional scale economies. The SEC recently changed the rules governing the share creation and redemption mechanism at the heart of ETFs in an explicit attempt to lower barriers to entry and enhance competition (SEC 2019: 197-98). Second, unlike active mutual funds, whose transaction costs tend to increase beyond a certain size threshold, ETFs benefit from network effects – more investors make the shares of an ETF more liquid. Third, asset management companies have increasingly benefitted from data-based returns to scale. This trend is epitomized by BlackRock's Aladdin, a risk-management system so widely used in the asset management industry that BlackRock's CEO has described it as "the Android of finance" (Haberly et al. 2019: 172). Indeed, BlackRock's immediate rivals, Vanguard and SSGA, are users of Aladdin, suggesting that the scale economies of data platforms are even greater than those of index-based asset management (Henderson and Walker 2020).

Capturing the ETF market has made the Big Three the largest asset managers in the world (Fichtner, Heemskerk, and Garcia-Bernardo 2017). Vanguard and BlackRock currently hold an average 9 and 7 per cent, respectively, in the average S&P 500 company (Backus, Conlon, and Sinkinson 2019: 19). (How) do these firms wield their new power?

4. Diversified and disinterested

The comparative political economy and corporate finance literatures used to consider it "one of the best established stylized facts" that "ownership of large listed companies is dispersed [...] in the U.S. and concentrated in most other countries" (Franks, Mayer, and Rossi 2008: 4009). By contrast, as shown above, the rise of asset managers has transformed the U.S. from a dispersed-ownership economy with weak shareholders into a concentrated-ownership economy with strong shareholders. Beyond these obvious targets, the empirical reality of asset manager capitalism also undercuts two additional tenets of the BM-JM ontology, namely that institutional investors are speculators making targeted bets and that their primary economic interest is in the performance of their portfolio firms.

Diversified: The promise of universal ownership

Political economists have long equated LME-type institutional investors (a catch-all category comprising both pension funds and mutual funds) with 'impatient' capital, in contrast to the 'patient' capital provided by banks and other strategic blockholders in coordinated market economies (Culpepper 2005; Goyer 2011; Hall and Soskice 2001; Höpner 2003). Concentration and the rise of indexing, however, have effectively eliminated 'exit' as an option for the largest asset managers (Jahnke 2019). This scenario was not anticipated. In an otherwise clear-eyed survey of the changing U.S. shareholder landscape, Davis still highlighted a "surprising combination of concentration *and liquidity*" as the core features of what he termed – referencing Hilferding – the "new finance capitalism" (Davis 2008: 20, my emphasis). Index fund providers such as Vanguard did not yet show up in the list of blockholders with multiple stakes above 5 per cent. Analyzing data up to 2005, Davis noted that index funds "typically end up with smaller ownership positions in a larger number of companies" (ibid.: 15). By the time Davis' article was published, BlackRock's *average* S&P 500 shareholding had already surpassed the 5 per cent threshold. Vanguard followed in 2012 and today holds an average stake of 9 per cent (Backus, Conlon, and Sinkinson 2019: 19). This was a watershed moment – full diversification and large blockholdings ceased to be mutually exclusive.

Today, large asset management companies are quintessential "universal owners" (Hawley and Williams 2000; Monks and Minow 1995). The promise associated with this concept is enormous (Condon 2020). As holders of the market portfolio, universal owners should, in principle, internalize all externalities arising from the conduct of individual portfolio companies. The concept of the universal owner conjures the image of a utilitarian social planner curbing economic activities – above all: carbon emissions – whose aggregate monetary cost exceeds their aggregate monetary value (Azar et al. 2020). While the concept is not new, it has become more compelling in that the growth of index funds and ETFs has deprived the largest universal owners of the option of exit (reinforcing the internalization of externalities), while the size of their blockholdings affords them considerable power through voice (Fichtner and Heemskerk 2019; Jahnke 2019).[14] Besides carbon emissions, asset managers calling on pharma companies to set competition aside and cooperate in the search for a Covid-19 vaccine offers a striking example of universal ownership in action (Mooney and Mancini 2020). The example also illustrates the close conceptual link between externality-reducing universal ownership and competition-reducing common ownership (see section 5).

The Big Three have been quick to harness the promise of universal ownership to shape their public image as long-term shareholders whose interests are fundamentally aligned with environmental, social, and governance (ESG) sustainability. BlackRock CEO's Larry Fink's annual letters to CEOs and to investors exemplify this rhetoric (Condon 2020: 54), which seeks to replace shareholder value as the dominant corporate governance ideology with a 'stewardship' model. Whereas the shareholder value regime made good corporate governance a matter of corporate accountability to shareholders, in recent years the latter – i.e., asset managers – have themselves faced demands for accountability from *their* principals. The global spread of stewardship codes illustrates this ideological and regulatory shift (Hill 2017). Investors increasingly expect asset managers to act as stewards of their capital in ways that go beyond maximizing short-term returns, above all in the context of global warming (Christophers 2019). In theory, the logic of universal ownership is compelling. In practice, it is counteracted by the causes of diversification – indexing and size – and by the economic incentives faced by asset managers.

[14] Capital invested via index funds is "steered" not by individual fund managers but by index providers such as MSCI or S&P, which often exercise considerable discretionary power (Petry, Fichtner, and Heemskerk 2019).

Disinterested: The separation of legal and economic ownership

The deepest and most long-lasting effect of the BM-JM ontology has been the notion that shareholders 'own' the corporation. In large part due to the work of Lynn Stout (2012), it is increasingly recognized that U.S. corporate law does not actually assign ownership rights to shareholders (see also, Ciepley 2013).[15] Asset manager capitalism has added an important twist to this – the separation of the legal ownership of a stock from the economic interest in the return from that stock.

Berle and Means' (1932: 119) defined ownership as "having interests in an enterprise" and control as "having power over it". The separation of the two, they noted, reduced "the position of the owner … to that of having a set of legal and factual interests in the enterprise" (ibid.). Agency theorists sought to re-unite ownership and control by strengthening shareholder protection and by aligning the incentives of managers with those of shareholders (Jensen and Meckling 1976). Indeed, giving managers "interests in the enterprise" via stock options and other forms of incentive pay during the 1990s merged the interests – and, by implication, the class position – of the two groups, strengthening shareholder control at the expense of labor (Boyer 2005; Goldstein 2012). Since Jensen and Meckling, the concentration of stock ownership has further increased shareholder power, thus seemingly perfecting the re-unification of ownership and control. The rise of asset management companies, however, has perfected a different separation – that between the "legal interest" and the "factual interest" in the enterprise. Indeed, the separation of ownership and control has been joined by the "separation of ownership from ownership" (Strine Jr 2007: 7).

Agency theory rests on the assumption that shareholders have more 'skin in the game' than managers or workers.[16] While that was always questionable, what agency theorists ignored entirely is the shareholder without any skin in the game at all – one that holds the legal title (shares and the attached voting rights) but not the economic interest. Today, the dominant shareholders are 'disinterested' in this way.

[15] Hence the use of 'stock ownership' rather than 'corporate ownership' in the present paper.

[16] In their article 'Separation of ownership and control', Fama and Jensen (1983: 301) conceptualized corporations as "organizations in which important decision agents do not bear a substantial share of the wealth effects of their decisions."

While mutual funds and ETFs legally own stocks, they pass on any returns to the fund's investors, the ultimate 'asset owners' (retail or institutional investors).[17] For revenue, asset managers rely on fees. Unlike alternative investment vehicles such as hedge funds, whose fee structure usually includes a large performance-based component, mutual funds and ETFs typically charge their investors fees that amount to a fixed percentage of the assets invested (this 'expense ratio' is displayed in Figure 4 above).

The economic interests of asset managers thus are different from the economic interests ascribed to shareholders in the BM-JM ontology. Simply put, asset managers are incentivized to maximize assets under management. For actively managed funds, adequate relative returns matter, but only to the extent that they cause clients to switch to competitors. For indexed funds, the return equals the benchmark return (minus a 'tracking error' that index funds seek to minimize), which eliminates even the indirect nexus between returns and revenue.

From an agency theory perspective, the implications of this "double-agency society" – a phrase coined by the late founder of Vanguard (Bogle 2012: 29) – are analogous to the separation of ownership and control.[18] Asset owners (the principal) hiring asset managers (the agent) must fear that the latter's incentives are not aligned with their interests. In the standard investment chain configuration, this agency problem repeats itself at least once, between the asset owner (a pension fund) and the ultimate beneficiaries (the plan members). Thus, the supposed principals in the shareholder-manager relationship are themselves agents to a chain of principals, namely asset owners and ultimate beneficiaries (Arjaliès et al. 2017; Bebchuk, Cohen, and Hirst 2017; Kay 2012). The result of this proliferation of agency relationships is a proliferation of conflicts of interest.

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[17] On hedge fund strategies to disentangle legal ownership from the risk of the underlying asset, see Ringe (2016).

[18] The spread of outsourcing and franchising described by Schwartz (forthc.) points to the proliferation of agency relationships also on the production side. Indeed, economic activity in the platform economy is increasingly coordinated via arms-length, market-based relationships rather than outright control (Davis 2016; Kenney and Zysman 2016; Rahman and Thelen 2019; Srnicek 2017).

5. The political economy of asset manager capitalism

Shareholder primacy refers to a corporate governance regime in which the interests of shareholders – in close alliance with corporate managers – dominate over those of workers and society at large. While the jury is out over whether this power structure will be shaken by the rise of asset managers, the latter is certainly transforming corporate governance. This section discusses the political economy of asset manager capitalism at the firm, sectoral, and macroeconomic levels, as well as in politics.

Firm level: The cost of engagement

In the BM-JM imaginary, shareholders as principals have a vital interest in the performance of their portfolio companies. By monitoring these companies, they perform what agency theorists consider a vital economic function. Nevertheless, a tension has always existed in U.S. securities and corporate law, between the need for shareholder monitoring and engagement and the desire to keep powerful mutual funds out of corporate governance in general, and the boardroom in particular (Roe 1994: 102). This tension continues to play out today, as illustrated by the ongoing conflicts between the Securities and Exchange Commission and business groups over proxy access rules (Rahman and Thelen forthc.). With the rise of index-tracking asset managers, by contrast, the issue for regulators has shifted from too much engagement to too little engagement.

Monitoring and engaging with portfolio companies is costly, and asset managers do not directly benefit from the returns to such stewardship activities. Some argue that competition solves this problem – investors increasingly demand stewardship services from their asset managers, and failure to monitor and engage with firms diminishes returns, driving investors away (Fisch, Hamdani, and Solomon 2019; Jahnke 2019). For index funds, this is doubtful from a purely theoretical perspective – any performance gains they achieve by engaging with a specific company are reaped disproportionately by active funds with bets on that specific company (Lund 2017). Empirically, studies of voting and other stewardship-related activities shows that index funds are less likely than other funds to engage with portfolio firms (Heath et al. 2019), even on negative externalities that universal owners should, in theory, seek to curb (Briere, Pouget, and Ureche 2019). This is reflected by their stewardship teams, which remain far too small to monitor thousands of portfolio companies: the ratios of stewardship personnel to portfolio companies worldwide are 45/11,246 for BlackRock, 21/13,225 for Vanguard, and 12/12,191 for SSGA (Bebchuk and Hirst 2019: 2077).

The problem of the direct cost of engagement is exacerbated by the indirect cost of alienating corporate managers – portfolio firms are often also *clients* of asset managers. As a consequence, the asset management arms of large banks, for instance, tilt their equity investments towards the clients of their parent banks (Ferreira, Matos, and Pires 2018). For pure asset managers, 401(k) plan assets are an important source of revenue that provides a strong incentive to not alienate corporate management. For the Big Three, the proportion of U.S. client assets coming from 401(k) plans in 2017 ranged from 14 to 20 percent (Bebchuk and Hirst 2019: 2062). Proxy voting data shows that the largest asset managers overwhelmingly vote with management, especially on controversial issues (Bubb and Catan 2019; Heath et al. 2019). Out of almost 4000 shareholder proposals submitted to companies in the Russell 3000 index between 2008 and 2017, not a single one came from one of the Big Three (Bebchuk, Cohen, and Hirst 2017: 48).

As the Big Three have grown in size and (potential) power, regulators across the world have become increasingly concerned by their lack of monitoring and engagement. The global diffusion of so-called ‘stewardship codes’ (Hill 2017) should be seen in that light – as an attempt to ward off more heavy-handed forms of regulatory intervention. By signing on to stewardship codes, asset managers commit, for instance, to voting their shares and to make (aggregate) disclosures about their engagements with individual portfolio firms. Whereas stewardship codes aim at getting asset managers more involved in corporate governance, other policy proposals focus on “disintermediating” voting by giving asset owners (such as pension funds), or even ultimate beneficiaries (individual savers), the right to decide how their shares should be voted (Griffin forthc.).

Sector level: Common ownership

The concentration of corporate ownership among a small number of very large asset managers gives rise to the phenomenon of "common ownership" (Azar, Schmalz, and Tecu 2018; Backus, Conlon, and Sinkinson 2019; Elhauge 2016). If all major firms in a given sector have the same (large) shareholders, the theory goes, shareholder returns are maximized if these firms engage in monopolistic pricing. The agenda-setting study on the anti-competitive effects of common ownership in the airline industry highlighted four potential causal mechanisms: "voice, incentives, and vote – as well as doing nothing, that is, simply not pushing for more aggressive competition" (Azar, Schmalz, and Tecu 2018: 1557). The potential implications are grave. From an "antitrust as allocator of coordination rights" perspective, by allowing common ownership, antitrust rules grant the largest asset managers coordination power unavailable to any other actors in the economy (Paul 2020). In the extreme case of all shareholders being fully diversified, shareholder value maximization implies "an economy-wide monopoly" (Azar 2020: 275).

The theory that common ownership has anti-competitive effects has rapidly gained traction among national (Federal Trade FTC 2018) and international (OECD 2017) policymakers. The stakes are extremely high for the asset management sector, which has contested the underlying research, while opposing regulatory initiatives (Fox 2019). Policy proposals are necessarily radical. One group of authors has suggested enforcing §7 of the 1914 Clayton Act, which outlawed competition-reducing corporate mergers that – in reaction to the 1890 Sherman Act – had become the prevalent strategy to build monopolies. The proposal would prohibit asset managers from owning more than one percent in more than a single firm in oligopolistic industries (Posner, Scott Morton, and Weyl 2017).

Macro level: Shareholders are not the economy

The micro-level interactions between shareholders and firms are one aspect of the political economy of corporate governance regimes. It is crucial, however, to also consider system-level dynamics. From a political economy perspective, one key question is distribution, namely the capital-labor split. The shareholder primacy regime relentlessly pursued an agenda of strengthening the protection of (minority) shareholder rights while weakening the power of labor (Hertel-Fernandez forthc.; Naidu forthc.). The negative externalities – for public health and the cohesion of the social fabric – were not priced in by institutional investors with shareholdings in individual companies. Do truly universal owners price these externalities differently?

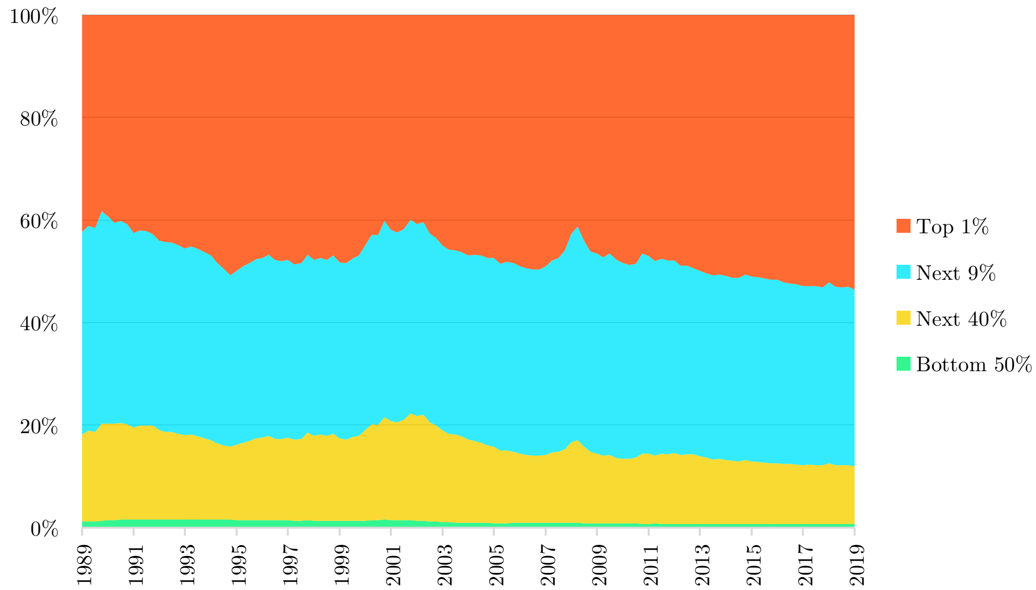
Phrased in this way, the question points towards a fundamental problem with the promise of universal ownership. While asset managers are universal shareholders, the distribution of share ownership in society is extremely unequal. Figure 5 shows that the top 1 per cent of the wealth distribution own 50 per cent of the corporate equity and mutual fund shares (versus 35 per cent of total wealth), while the top 10 per cent own 86 per cent. This massive concentration of share ownership at the top counteracts the benign logic of universal ownership – shareholders may be fully diversified, but only half of the population owns any shares at all.[19] The test case for this argument are corporate strategies whose profits are outweighed by negative externalities that are, however, borne primarily by those who own few or no shares. Consider the example of worker pay at the lower end of the wage scale. Wage stagnation for the bottom 50 per cent of the wealth distribution (those without shares) certainly has some negative externalities for the economy as a whole, notably in the form of lower aggregate demand. For shareholders, however, these externalities may be outweighed by higher corporate profits and thus higher returns. In other words, a negative externality for the poor can be a positive externality for the rich. Given the highly unequal distribution of shareholdings, even truly universal owners – such as the Big Three asset managers – should be expected to push the economy towards the lowest sustainable labor share.

Short of equalizing the distribution of shareholdings across households, proposals to address this problem generally aim at improving the representation of the interests

[19] Note that Figure 5 does not include retirement assets, which in 2018 stood at just over US 25 trillion, equivalent to roughly 50 per cent the market value of U.S. corporate equity. A large share of that capital is invested in stocks, via pension funds. Compared to direct equity and mutual fund holdings, the distribution of retirement assets is less skewed towards the top 1 per cent but still almost entirely passes by the bottom 50 per cent.

of workers in the corporate governance process. One way to achieve this is by wielding "labor's last best weapon", namely its pension funds (Webber 2018). However, pension fund activism has been fighting an uphill battle against existing rules and investment norms, notably those instituted by Taft-Hartley and ERISA (McCarthy, Sorsa, and van der Zwan 2016). Another proposal aims at adopting a German system of 'co-determination' to bring worker representation to the boardroom (Palladino 2019).

Figure 5: Distribution of equity and mutual fund holdings by wealth group, 1989–2019, USD trillion, share of total



Source: Federal Reserve, US distributional financial accounts.

The politics of maximizing assets under management

The most powerful actors in the equity investment chain are no longer the asset owners but their agents, the asset managers. While this further consolidation of the interests of asset owners at the point of asset management may well strengthen the structural power of asset owners, their interests are not fully aligned with those of asset managers. The latter's business model is geared towards maximizing (the value of) assets under management. This crucial aspect of the political economy of asset manager capitalism plays out in the realm of politics.

While competition for existing savings is zero sum, the size of the pie – accumulated wealth – is a function of policy (Chwieroth and Walter 2019). Social policy in general, and retirement policy in particular, determine how and how much people save. With retirement assets accounting for the biggest chunk of the asset management pie – 46% of U.S. mutual fund assets, see Figure 3 – asset managers have a strong vested interest in retirement policy (Naczyk 2013; 2018). The scope of this interest is global. When the Group of Thirty published a report on "Fixing the pension crisis", the six-member working group included representatives of BlackRock and UBS (Group of Thirty 2019). When protests erupted in France against President Macron's planned pension reforms, protesters targeted BlackRock, which had published a white paper in favor of pension privatization, and whose CEO had been photographed with the President at the Élysée Palace (Alderman 2020; BlackRock 2019b).

Whereas social policy has the power to mobilize more of the base ingredient (savings), macroeconomic policy has the power to inflate the pie (asset prices).[20] Asset management fees are charged as a percentage of the current value of a client's assets, meaning that from a revenue point of view, fund inflows and increasing asset prices are substitutes. This gives asset managers a strong vested interest in monetary policy – other things equal, lower interest rates imply higher asset prices. BlackRock's efforts to forge deep ties with the Federal Reserve illustrate the point. When, during the 2008 financial crisis, the New York Fed bundled the assets of AIG into the so-called 'Maiden Lane' portfolios, it awarded the contract to manage them to BlackRock. Since then, BlackRock has hired several senior central bankers: Philipp Hildebrand (former chairman of the Swiss National Bank – hired in 2012), Jean Boivin (deputy governor of the Bank of Canada – 2014), and Stanley Fischer (vice-chairman of the Fed – 2019). In 2019, these three co-authored a paper titled "Dealing with the next downturn", which called on central banks to be audacious in their monetary easing measures (BlackRock Investment Institute 2019). The paper

[20] In addition to lobbying for specific macroeconomic policies, corporate governance also offers ways to push up aggregate stock market valuations. Diversified asset managers calling on pharma companies to adopt a cooperative approach to developing a Covid-19 vaccine – instead of maximizing pharma profits from individual patents – can be understood in this manner (Levine 2020).

was discussed, alongside the research of the world's most recognized economists, at the Fed's annual Jackson Hole symposium. When, in the early phase of the coronavirus pandemic, the Fed announced unprecedented corporate bond purchases, it hired BlackRock to manage the program. In a stark display of the infrastructural power of finance (Braun 2018), the largest asset manager has effectively transitioned from being a monetary policy taker to acting as a monetary policy maker.

Conclusion

Comparative political economy has long conceptualized the U.S. as a liberal market economy defined, in the sphere of corporate finance, by dispersed ownership, weak owners, and impatient capital. By holding on to the Berle-Means-Jensen-Meckling ontology too long, CPE missed fundamental changes in the shareholder structure and corporate governance regime of the U.S. economy. While in the early 2000s traditional ownership networks had already largely dissolved in coordinated market economies, which in that regard increasingly resembled the U.S. system, the latter was perceived as stable and durable. However, the Great Re-Concentration and the growth of asset managers have transformed the U.S. into a concentrated-ownership liberal market economy with strong minority shareholders and a large amount of indexed, and thus patient, capital. These changes have largely been driven by developments within the investment chain rather than by the interaction between financial and non-financial institutions such as labor market or welfare state regimes.

At first blush, the new shareholder structure resembles that of the late 19th century: the equity of a concentrated corporate sector is concentrated in the hands of only a handful of financial firms. Two crucial features, however, distinguish the new asset manager capitalism from the Gilded Age money trust (as well as from corporatist 'Germany, Inc.' prior to the 1990s). First, unlike their robber baron predecessors, today's dominant owners are fully diversified across the entire stock market. In the case of the largest asset managers, which overwhelmingly are invested in corporate equity via index-tracking funds, this increasingly holds for the global stock market. Second, asset managers are economically disinterested intermediaries – they lack skin in the corporate game. Unlike the U.S. robber barons in (and to a significantly greater extent than Deutsche Bank and Allianz in Germany), their business model is to compete for capital from investors and to extract managements fees from them. The returns from their shareholdings are relevant in that competition, but the largest asset managers in particular only own the legal title, not the economic interest in the corporations whose stock they hold. At closer inspection, therefore, asset manager capitalism is without historical precedent.

This paper has sought to clear a path for political economists to move beyond the BM-JM ontology. I will highlight two insights from my – necessarily preliminary – analysis of the political economy of asset manager capitalism that may help open up promising avenues for future research. The first insight relates to the stakeholder coalition perspective that has dominated the CPE literature on corporate governance (Aguilera and Jackson 2003; Gourevitch and Shinn 2005; Höpner 2003). This literature has interpreted the shareholder primacy regime in LMEs as an alliance of shareholders and workers – embodied in powerful public pension funds – against corporate managers. Like other aspects of the CPE literature, this interpretation reflected early-1990s pension fund capitalism but was largely obsolete by the early 2000s, when shareholders had closed ranks with managers, in terms of both ideology and class (Boyer 2005; Duménil and Lévy 2011; Goldstein 2012). However, these accounts still conceptualize shareholders as owners. As the discussion of the incentives of today's asset management conglomerates shows, what has come to pass is an alliance between managers and asset managers. One interpretation of asset managers' lax approach to corporate governance is that it shifts power back to corporate managers, at the expense of shareholders. Equally plausible, however, is the argument that power shifts to other types of investors (Deeg and Hardie 2016). For instance, the initiative for engagements with individual companies now often comes from activist hedge funds that then seek the support of the Big Three (Aguilera, Federo, and Ponomareva 2019). Another empowered shareholder category are sovereign wealth funds, the largest of which are also universal owners but without some of the business-model related conflicts of interest (Babic, Garcia-Bernardo, and Heemskerk 2020). In order to map the distribution of power between these various actors, future research will need to examine more closely the dynamics playing out within the increasingly complex investment chain.

Secondly, the above analysis challenges the notion, widespread in CPE, that stock ownership regimes are relatively stable institutions rooted in national institutional and ideological legacies. CPE continued to see the U.S. as a liberal market economy defined by dispersed ownership, weak owners, and impatient capital, missing fundamental changes in the shareholder structure and corporate governance regime. As Roe (1994: xv) has noted, corporate governance "is partly just the tail to the larger kite of the organization of savings" – that is, of the investment chain. However, whereas in Roe's theory the investment chain is shaped by policies conditioned by history and political ideology – in the U.S. case: mistrust of concentrated financial power – this paper argues that the investment chain is *also* the tail to the larger kites of wealth accumulation, inequality, and financial globalization. Fostering private wealth accumulation – a U.S. policy priority for the last seven decades – and restricting concentrated financial power in the asset management sector are likely two inconsistent policy goals. The ease with which the latter goal has recently been abandoned supports the view that the investment chain is, in fact, subject to relatively sudden and dramatic regime shifts. Moreover, in a globalized financial system, the investment chain of any individual country – and thus the domestic stock ownership regime – is also a function of the organization of savings in the rest of the world. 40 per cent of BlackRock's assets are managed for clients outside of the United States (BlackRock 2019a: 1). The political economy of American corporate governance is thus embedded not only in the American political and economic system but also – and to a greater extent than in the past – in the global financial system.

References

Aguilera, Ruth V., Ryan Federo, and Yuliya Ponomareva. 2019. "Gone Global: The International Diffusion of Hedge Fund Activism Outside the United States." *Available at SSRN 3402966.*

Aguilera, Ruth V., and Gregory Jackson. 2003. "The Cross-National Diversity of Corporate Governance: Dimensions and Determinants." *The Academy of Management Review* 28 (3): 447-65. http://www.jstor.org/stable/30040732.

Alderman, Liz. 2020. "BlackRock Becomes a Symbol for Anticapitalist Fervor in France." *New York Times*, February 14. Accessed 05/15/2020. https://www.nytimes.com/2020/02/14/business/france-blackrock-protests.html.

Ansell, Ben, and Jane Gingrich. forthc. "Concentration and Commodification: The Political Economy of Postindustrialism in America and Beyond".

Arjaliès, Diane-Laure, Philip Grant, Iain Hardie, Donald MacKenzie, and Ekaterina Svetlova. 2017. *Chains of finance: How investment management is shaped.* Oxford: Oxford University Press.

Azar, José. 2020. "The Common Ownership Trilemma." *The University of Chicago Law Review* 87 (2): 263-96.

Azar, José, Miguel Duro, Igor Kadach, and Gaizka Ormazabal. 2020. "The Big Three and Corporate Carbon Emissions Around the World." *Available at SSRN 3553258.*

Azar, José, Martin C Schmalz, and Isabel Tecu. 2018. "Anticompetitive Effects of Common Ownership." *The Journal of Finance* 73 (4): 1513-65. doi:doi:10.1111/jofi.12698.

Babic, Milan, Javier Garcia-Bernardo, and Eelke M. Heemskerk. 2020. "The rise of transnational state capital: state-led foreign investment in the 21st century." *Review of International Political Economy* 27 (3): 433-75. doi:10.1080/09692290.2019.1665084.

Backus, Matthew, Christopher Conlon, and Michael Sinkinson. 2019. Common Ownership in America: 1980-2017. NBER Working Paper 25454. Cambridge, MA: National Bureau of Economic Research.

BarclayHedge. 2020. *Hedge Fund Industry Assets Under Management.* Accessed 05/15/2020. www.barclayhedge.com/solutions/assets-under-management/hedge-fund-assets-under-management/.

Bebchuk, Lucian A., Alma Cohen, and Scott Hirst. 2017. "The agency problems of institutional investors." *Journal of Economic Perspectives* 31 (3): 89-102.

Bebchuk, Lucian A., and Scott Hirst. 2019. "Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy." *Columbia Law Review* 119 (8): 2029-145.

Berle, Adolf A., and Gardiner C. Means. 1932. *The modern corporation and private property.* New York: Macmillan.

Beyer, Jürgen, and Martin Höpner. 2003. "The disintegration of organised capitalism: German corporate governance in the 1990s." *West European Politics* 26 (4): 179-98.

BlackRock. 2019a. "Annual Report 2018." Accessed 02/05/2020. https://s24.q4cdn.com/856567660/files/doc_financials/2018/ar/2018-Annual-Report.pdf.

BlackRock. 2019b. "Loi Pacte: Le bon plan Retraite." Accessed 05/15/2020. https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-loi-pacte-le-bon-plan-retraite-juin-2019.pdf.

Bogle, John C. 2012. *The clash of the cultures: Investment vs. speculation*. John Wiley & Sons.

Boyer, Robert. 2005. "From Shareholder Value to CEO Power: The Paradox of the 1990s." *Competition & Change* 9 (1): 7-47. doi:10.1179/102452905X38623.

Braun, Benjamin. 2016. "From performativity to political economy: index investing, ETFs and asset manager capitalism." *New Political Economy* 21 (3): 257-73. doi:10.1080/13563467.2016.1094045.

Braun, Benjamin. 2018. "Central banking and the infrastructural power of finance: The case of ECB support for repo and securitization markets." *Socio-Economic Review*. doi:10.1093/ser/mwy008.

Briere, Marie, Sebastien Pouget, and Loredana Ureche. 2019. Do universal owners vote to curb negative corporate externalities? An empirical analysis of shareholder meetings. Available at SSRN: 3140043.

Bubb, Ryan, and Emiliano Catan. 2019. The party structure of mutual funds. Available at SSRN 3124039.

Chandler, Alfred D. 1977. *The visible hand. The Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press.

Christophers, Brett. 2019. "Environmental beta or how institutional investors think about climate change and fossil fuel risk." *Annals of the American Association of Geographers* 109 (3): 754-74.

Chwieroth, Jeffrey M., and Andrew Walter. 2019. *The Wealth Effect: How the Great Expectations of the Middle Class Have Changed the Politics of Banking Crises*. Cambridge: Cambridge University Press.

Ciepley, David. 2013. "Beyond Public and Private: Toward a Political Theory of the Corporation." *American Political Science Review* 107 (01): 139-58. doi:10.1017/S0003055412000536.

Clark, Gordon. 2000. *Pension fund capitalism*. Oxford: Oxford University Press.

Clowes, Michael J. 2000. *The money flood: how pension funds revolutionized investing*. Vol. 78 of.: Wiley.

Coates, John C., IV. 2009. "Reforming the Taxation and Regulation of Mutual Funds: A Comparative Legal and Economic Analysis." *Journal of Legal Analysis* 1 (2): 591-689.

Condon, Madison. 2020. "Externalities and the Common Owner." *Washington Law Review* 95 (1-81).

Culpepper, Pepper D. 2005. "Institutional Change in Contemporary Capitalism: Coordinated Financial Systems since 1990." *World Politics* 57 (2): 173-99. doi:10.1353/wp.2005.0016.

Davis, Gerald F. 2008. "A new finance capitalism? Mutual funds and ownership re-concentration in the United States." *European Management Review* 5 (1): 11-21.

Davis, Gerald F. 2016. *The vanishing American corporation: Navigating the hazards of a new economy*. Oakland, CA: Berrett-Koehler Publishers.

Davis, Gerald F., and Tracy A. Thompson. 1994. "A social movement perspective on corporate control." *Administrative Science Quarterly* 39 (1): 141-73.

Deeg, Richard. 2009. "The rise of internal capitalist diversity? Changing patterns of finance and corporate governance in Europe." *Economy and Society* 38 (4): 552-79.

Deeg, Richard, and Iain Hardie. 2016. "What is patient capital and who supplies it?" *Socio-Economic Review* 14 (4): 627–45. doi:10.1093/ser/mww025.

Drucker, Peter F. 1976. *The unseen revolution: How pension fund socialism came to America*. New York: Harper & Row.

Duménil, Gérard, and Dominique Lévy. 2011. *The crisis of neoliberalism*. Harvard University Press.

Elhauge, Einer. 2016. "Horizontal Shareholding." *Harvard Law Review* 129: 1267-317.

Fama, Eugene F., and Michael C. Jensen. 1983. "Separation of ownership and control." *The Journal of Law and Economics* 26 (2): 301-25.

Ferreira, Miguel A, Pedro Matos, and Pedro Pires. 2018. "Asset management within commercial banking groups: International evidence." *The Journal of Finance* 73 (5): 2181-227.

Fichtner, Jan. 2020. "The Rise of Institutional Investors." In *The Routledge International Handbook of Financialization*, edited by Philip Mader, Daniel Mertens and Natascha van der Zwan. London: Routledge.

Fichtner, Jan, and Eelke M. Heemskerk. 2019. The New Permanent Universal Owners: Index Funds, (Im)patient Capital, and the Claim of Long-termism. Available at SSRN: 3321597.

Fichtner, Jan, Eelke M. Heemskerk, and Javier Garcia-Bernardo. 2017. "Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk." *Business and Politics* 19 (2): 298-326. doi:10.1017/bap.2017.6.

Fink, Matthew P. 2008. *The rise of mutual funds: an insider's view*. New York: Oxford University Press.

Fisch, Jill E., Assaf Hamdani, and Steven Davidoff Solomon. 2019. "The New Titans of Wall Street: A Theoretical Framework for Passive Investors." *University of Pennsylvania Law Review* Forthcoming.

Fligstein, Neil. 1990. *The transformation of corporate control*. Cambridge, MA: Harvard University Press.

Fourcade, Marion, and Rakesh Khurana. 2017. "The Social Trajectory of a Finance Professor and the Common Sense of Capital." *History of Political Economy* 49 (2): 347-81. doi:10.1215/00182702-3876505.

Fox, Brooke. 2019. "Asset managers fight to prevent limits on company ownership." *Financial Times*. Accessed 04/20/2019. https://www.ft.com/content/af19e6ca-2f02-11e9-ba00-0251022932c8?shareType=nongift.

Franks, Julian, Colin Mayer, and Stefano Rossi. 2008. "Ownership: Evolution and regulation." *The Review of Financial Studies* 22 (10): 4009-56.

Federal Trade Commission. 2018. *FTC Hearing #8: Common Ownership*. Washington, DC. Accessed 04/20/2019. https://www.ftc.gov/policy/public-comments/2018/12/initiative-789.

Goldstein, Adam. 2012. "Revenge of the managers: Labor cost-cutting and the paradoxical resurgence of managerialism in the shareholder value era, 1984 to 2001." *American Sociological Review* 77 (2): 268-94.

Gourevitch, Peter A., and James Shinn. 2005. *Political power and corporate control: The new global politics of corporate governance*. Princeton, NJ: Princeton University Press.

Goyer, Michel. 2011. *Contingent capital: Short-term investors and the evolution of corporate governance in France and Germany*. Oxford: Oxford University Press.

Greenwood, Robin, and David Scharfstein. 2013. "The growth of finance." *The Journal of Economic Perspectives* 27 (2): 3-28.

Griffin, Caleb N. forthc. "We Three Kings: Disintermediating Voting at the Index Fund Giants." *Maryland Law Review*.

Haberly, Daniel, Duncan MacDonald-Korth, Michael Urban, and Dariusz Wójcik. 2019. "Asset management as a digital platform industry: A global financial network perspective." *Geoforum* 106: 167-81.

Hacker, Jacob S. 2019. *The great risk shift: The new economic insecurity and the decline of the American dream*. Expanded & fully revised 2nd ed. New York: Oxford University Press.

Hacker, Jacob S., and Paul Pierson. 2016. *American amnesia: How the war on government led us to forget what made America prosper*. New York: Simon and Schuster.

Hall, Peter A., and David Soskice. 2001. "An Introduction to Varieties of Capitalism." In *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage*, edited by Peter A. Hall and David Soskice, 1-68. Oxford: Oxford University Press.

Hansmann, Henry, and Reinier Kraakman. 2001. "The End of History for Corporate Law." *Georgetown Law Journal* 89: 439-68.

Hawley, James P., and Andrew T. Williams. 2000. *The rise of fiduciary capitalism: How institutional investors can make corporate America more democratic*. Philadelphia: University of Pennsylvania Press.

Heath, Davidson, Daniele Macciocchi, Roni Michaely, and Matthew Ringgenberg. 2019. Do Index Funds Monitor? Research Paper 19-08. Zurich: Swiss Finance Institute.

Henderson, Richard, and Owen Walker. 2020. "BlackRock's black box: the technology hub of modern finance." *Financial Times*, 24 February. Accessed 02/24/20. https://www.ft.com/content/5ba6f40e-4e4d-11ea-95a0-43d18ec715f5.

Hertel-Fernandez, Alexander. forthc. "Collective Action and the Past and Future Development of the American Labor Movement".

Hilferding, Rudolf. 1985 [1910]. *Finance capital: a study of the latest phase of capitalist development.* Routledge.

Hill, Jennifer G. 2017. "Good Activist/Bad Activist: The Rise of International Stewardship Codes." *Seattle University Law Review* 41: 497-524.

Höpner, Martin. 2003. *Wer beherrscht die Unternehmen? Shareholder Value, Managerherrschaft und Mitbestimmung in Deutschland.* Campus Verlag.

BlackRock Investment Institute. 2019. *Dealing with the next downturn: From unconventional monetary policy to unprecedented policy coordination.* .

Jahnke, Patrick. 2019. "Ownership concentration and institutional investors' governance through voice and exit." *Business and Politics* Online First. doi:10.1017/bap.2019.2.

Jensen, Michael C., and William H. Meckling. 1976. "Theory of the firm: Managerial behavior, agency costs and ownership structure." *Journal of Financial Economics* 3 (4): 305-60. doi:10.1016/0304-405x(76)90026-x.

Jung, Jiwook, and Frank Dobbin. 2015. "Agency theory as prophecy: How boards, analysts, and fund managers perform their roles." *Seattle University Law Review* 39: 291-320.

Kay, John. 2012. The Kay Review of UK Equity Markets and Long-Term Decision Making. Review commissioned by the Secretary of State for Business, Innovation and Skills

Kenney, Martin, and John Zysman. 2016. "The rise of the platform economy." *Issues in Science and Technology* 32 (3): 61-69.

Kim, Crystal. 2019. "The ETF Business Is Dominated by the Big Three. The SEC Is Suddenly Concerned." *Barron's*, 5 April. Accessed 04/15/2019. https://www.barrons.com/articles/etfs-are-dominated-by-blackrock-vanguard-and-state-street-the-sec-is-concerned-51554512133.

Knafo, Samuel, and Sahil Jai Dutta. 2020. "The myth of the shareholder revolution and the financialization of the firm." *Review of International Political Economy* 27 (3): 476-99. doi:10.1080/09692290.2019.1649293.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny. 2000. "Investor protection and corporate governance." *Journal of Financial Economics* 58 (1): 3-27. doi:https://doi.org/10.1016/S0304-405X(00)00065-9.

Lazonick, William, and Mary O'Sullivan. 2000. "Maximizing shareholder value: a new ideology for corporate governance." *Economy and Society* 29 (1): 13-35.

Levine, Matt. 2020. "Investors Want a Cure, Not a Winner." *Bloomberg*, April 24. Accessed 06/01/2020. https://www.bloomberg.com/opinion/articles/2020-04-24/investors-want-a-cure-not-a-winner?sref=1kJVNqnU.

Lund, Dorothy S. 2017. "The case against passive shareholder voting." *Journal of Corporation Law* 43: 493-536.

McCarthy, Michael A. 2017. *Dismantling Solidarity: Capitalist Politics and American Pensions Since the New Deal*. Ithaca, NY: Cornell University Press.

McCarthy, Michael A., Ville-Pekka Sorsa, and Natascha van der Zwan. 2016. "Investment preferences and patient capital: financing, governance, and regulation in pension fund capitalism." *Socio-Economic Review* 14 (4): 751-69.

Means, Gardiner C. 1930. "The diffusion of stock ownership in the United States." *The Quarterly Journal of Economics* 44 (4): 561-600.

Mehrling, Perry. 2005. *Fischer Black and the revolutionary idea of finance*. Hoboken, NJ: John Wiley & Sons.

Mider, Zachary R., Annie Massa, and Christopher Cannon. 2019. "Vanguard Patented a Way to Avoid Taxes on Mutual Funds." *Bloomberg*, May 1. Accessed 02/05/2020. https://www.bloomberg.com/graphics/2019-vanguard-mutual-fund-tax-dodge/.

Monks, Robert A. G., and Nell Minow. 1995. *Corporate Governance*. Malden, MA: Basil Blackwell.

Montagne, Sabine. 2013. "Investing prudently: How financialization puts a legal standard to use." *Sociologie du Travail* 55 (Supplement 1): 48-66.

Mooney, Attracta, and Donato Paolo Mancini. 2020. "Drugmakers urged to collaborate on coronavirus vaccine." *Financial Times*, April 24. Accessed 06/01/2020. https://www.ft.com/content/b452ceb9-765a-4c25-9876-fb73d736f92a.

Mooney, Attracta, and Peter Smith. 2019. "Larry Fink, Barclays and the deal of the decade." *Financial Times*, May 6. Accessed 02/05/2020. https://www.ft.com/content/48e703d8-6d87-11e9-80c7-60ee53e6681d.

Naczyk, Marek. 2013. "Agents of privatization? Business groups and the rise of pension funds in Continental Europe." *Socio-Economic Review* 11 (3): 441-69. doi:10.1093/ser/mws012.

Naczyk, Marek. 2018. "When finance captures labor's capital: Dominant personal pensions, resurgent occupational provision in Central and Eastern Europe." *Social Policy & Administration* 52 (2): 549-62. doi:doi:10.1111/spol.12383.

Naidu, Suresh. forthc. "American labor politics via labor market power".

OECD. 2017. *Hearing on Common ownership by institutional investors and its impact on competition - Summaries of Contributions*. Accessed 04/20/2019. http://www.oecd.org/competition/common-ownership-and-its-impact-on-competition.htm.

Ott, Julia C. 2011. *When Wall Street Met Main Street*. Cambridge, MA: Harvard University Press.

Palladino, Lenore. 2019. Worker Representation on U.S. Corporate Boards. Available at http://dx.doi.org/10.2139/ssrn.3476669.

Paul, Sanjukta. 2020. “Antitrust as Allocator of Coordination Rights.” *UCLA Law Review* 67 (2): 1-64.

Petry, Johannes, Jan Fichtner, and Eelke Heemskerk. 2019. “Steering capital: the growing private authority of index providers in the age of passive asset management.” *Review of International Political Economy*: 1-25. doi:10.1080/09692290.2019.1699147.

Posner, Eric A., Fiona M. Scott Morton, and E. Glen Weyl. 2017. “A proposal to limit the anti-competitive power of institutional investors.” *Antitrust Law Journal* 81 (3): 669-728.

Poterba, James M, and John B Shoven. 2002. “Exchange-traded funds: A new investment option for taxable investors.” *American Economic Review* 92 (2): 422-27.

Rahman, Sabeel K., and Kathleen Thelen. 2019. “The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism.” *Politics & Society* Advance Online Publication.

Rahman, Sabeel K., and Kathleen Thelen. forthc. “The Role of the Law in the American Political Economy”.

Riding, Siobhan. 2020. “Trillion-dollar club tightens grip on fund market during crisis.” *Financial Times*, May 10. Accessed 05/14/2020. https://www.ft.com/content/a6aa1010-3dff-4521-af52-fbadb496c89d.

Ringe, Wolf-Georg. 2016. *The deconstruction of equity: activist shareholders, decoupled risk, and corporate governance*. Oxford: Oxford University Press.

Roe, Mark J. 1994. *Strong Managers, Weak Owners. The Political Roots of American Corporate Finance*. Princeton, NJ: Princeton University Press.

Schwartz, Herman Mark. 2017. “Club goods, intellectual property rights, and profitability in the information economy.” *Business and Politics* 19 (2): 191-214. doi:10.1017/bap.2016.11.

Schwartz, Herman Mark. forthc. “Mo’ patents, mo’ problems: Corporate strategy, structure and profitability in America’s political economy”.

SEC 2019. *Release No. 33-10695 on Exchange-Traded Funds*. Securities and Exchange Commission. Accessed 05/02/2020. https://www.sec.gov/rules/final/2019/33-10695.pdf.

Srnicek, Nick. 2017. *Platform capitalism*. Cambridge: Polity.

Stout, Lynn A. 2012. *The shareholder value myth: How putting shareholders first harms investors, corporations, and the public*. San Francisco, CA: Berrett-Koehler Publishers.

Strine Jr, Leo E. 2007. “Toward common sense and common ground-reflections on the shared interests of managers and labor in a more rational system of corporate governance.” *The Journal of Corporation Law* 33 (1): 1-20.

Group of Thirty. 2019. *Fixing the pension crisis: Ensuring Lifetime Financial Security*. Washington, DC. Accessed 05/15/2020. https://group30.org/images/uploads/publications/G30_Pensions.pdf.

Useem, Michael. 1996. *Investor capitalism: How money managers are changing the face of corporate America*. Basic Books.

van der Zwan, Natascha. 2017. "Financialisation and the pension system: Lessons from the United States and the Netherlands." *Journal of Modern European History* 15 (4): 554-84.

Veblen, Thorstein. 1923. *Absentee Ownership: Business Enterprise in Recent Times-The Case of America*. New York: B.W. Huebsch.

Webber, David. 2018. *The rise of the working-class shareholder: Labor's last best weapon.* Cambridge, MA: Harvard University Press.

Windolf, Paul, and Jürgen Beyer. 1996. "Co-operative capitalism: corporate networks in Germany and Britain." *British Journal of Sociology*: 205-31.

Wooten, James. 2004. *The Employee Retirement Income Security Act of 1974: A Political History*. Vol. 11 of. Berkeley, CA: University of California Press.