

Investing in Innovation: A Policy Framework for Attaining Sustainable Prosperity in the United States

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ABSTRACT

“Sustainable prosperity” denotes an economy that generates stable and equitable growth for a large and growing middle class. From the 1940s into the 1970s, the United States appeared to be on a trajectory of sustainable prosperity, especially for white-male members of the U.S. labor force. Since the 1980s, however, an increasing proportion of the U.S. labor force has experienced unstable employment and inequitable income, while growing numbers of the business firms upon which they rely for employment have generated anemic productivity growth.

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Stable and equitable growth requires innovative enterprise. The essence of innovative enterprise is investment in productive capabilities that can generate higher-quality, lower-cost goods and services than those previously available. The innovative enterprise tends to be a business firm—a unit of strategic control that, by selling products, must make profits over time to survive. In a modern society, however, business firms are not alone in making investments in the productive capabilities required to generate innovative goods and services. Household units and government agencies also make investments in productive capabilities upon which business firms rely for their own investment activities. When they work in a harmonious fashion, these three types of organizations—household units, government agencies, and business firms—constitute “the investment triad.”

The Biden administration’s Build Back Better agenda to restore sustainable prosperity in the United States focuses on investment in productive capabilities by two of the three types of organizations in the triad: government agencies, implementing the Infrastructure Investment and Jobs Act, and household units, implementing the yet-to-be-passed American Families Act. Absent, however, is a policy agenda to encourage and enable investment in innovation by business firms. This gaping lacuna is particularly problematic because many of the largest industrial corporations in the United States place a far higher priority on distributing the contents of the corporate treasury to shareholders in the form of cash dividends and stock buybacks for the sake of higher stock yields than on investing in the productive capabilities of their workforces for the sake of innovation. Based on analyzes of the “financialization” of major U.S. business corporations, I argue that, unless Build Back Better includes an effective policy agenda to encourage and enable corporate investment in innovation, the Biden administration’s program for attaining stable and equitable growth will fail.

Drawing on the experience of the U.S. economy over the past seven decades, I summarize how the United States moved toward stable and equitable growth from the late 1940s through the 1970s under a “retain-and-reinvest” resource-allocation regime at major U.S. business firms. Companies retained a substantial portion of their profits to reinvest in productive capabilities, including those of career employees. In contrast, since the early 1980s, under a “downsize-and-distribute” corporate resource-allocation regime, unstable employment, inequitable income, and sagging productivity have characterized the U.S. economy. In transition from retain-and-reinvest to downsize-and-distribute, many of the largest, most powerful corporations have adopted a “dominate-and-distribute” resource-allocation regime: Based on the innovative capabilities that they have previously developed, these companies dominate market segments of their industries but prioritize shareholders in corporate resource allocation.

The practice of open-market share repurchases—aka stock buybacks—at major U.S. business corporations has been central to the dominate-and-distribute and downsize-and-distribute regimes. Since the mid-1980s, stock buybacks have become the prime mode for the legalized looting of the business corporation. I call this looting process “predatory value extraction” and contend that it is the fundamental cause of the increasing concentration of income among the richest household units and the erosion of middle-class employment opportunities for most other Americans.

I conclude the paper by outlining a policy framework that could stop the looting of the business corporation and put in place social institutions that support sustainable prosperity. The agenda

includes a ban on stock buybacks done as open-market repurchases, radical changes in incentives for senior corporate executives, representation of workers and taxpayers as directors on corporate boards, reform of the tax system to reward innovation and penalize financialization, and, guided by the investment-triad framework, government programs to support “collective and cumulative careers” of members of the U.S. labor force. Sustained investment in human capabilities by the investment triad, including business firms, would make it possible for an ever-increasing portion of the U.S. labor force to engage in the productive careers that underpin upward socioeconomic mobility, which would be manifested by a growing, robust, and hopeful American middle class.

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1. Productive Capabilities and Sustainable Prosperity

“Sustainable prosperity” denotes an economy that generates stable and equitable growth for a large and growing middle class. From the 1940s into the 1970s, the United States appeared to be on a trajectory of sustainable prosperity, especially for white-male members of the U.S. labor force.¹ Since the 1980s, however, an increasing proportion of the U.S. labor force has experienced unstable employment and inequitable income, while growing numbers of the business firms upon which they rely for employment have generated anemic productivity growth.²

Stable and equitable growth requires innovative enterprise. The essence of innovative enterprise is investment in productive capabilities that can generate higher-quality, lower cost goods and services than those previously available. The innovative enterprise tends to be a business firm—a unit of strategic control that, by selling products, must make profits over time to survive. In a modern society, however, business firms are not alone in making investments in the productive capabilities required to generate innovative goods and services. Household units and government agencies also make investments in productive capabilities upon which business firms rely for their own investment activities. When they work in a harmonious fashion, these three types of organizations—household units, government agencies, and business firms—constitute “the investment triad.”

The Biden administration’s Build Back Better agenda to restore sustainable prosperity in the United States focuses on investment in productive capabilities by two of the three types of organizations in the triad: government agencies, implementing the Infrastructure Investment and Jobs Act,³ and household units, implementing the as-yet-to-be-passed American Families Act.⁴ Absent, however, is a policy agenda to encourage and enable investment in innovation by business firms. This gaping lacuna is particularly problematic because many of the largest industrial corporations in the United States place a far higher priority on distributing the contents of the corporate treasury to shareholders in the form of cash dividends and stock buybacks for the sake of higher stock yields than on investing in the productive capabilities of their workforces for the sake of innovation. Based on analyses of the “financialization” of major U.S. business

¹ William Lazonick, Philip Moss, Hal Salzman, and Öner Tulum “Skill Development and Sustainable Prosperity: Collective and Cumulative Careers versus Skill-Biased Technical Change,” Institute for New Economic Thinking Working Group on the Political Economy of Distribution Working Paper No. 7, December 2014, <https://www.ineteconomics.org/research/research-papers/skill-development-and-sustainable-prosperity-cumulative-and-collective-careers-versus-skill-biased-technical-change>; William Lazonick, “Labor in the Twenty-First Century: The Top 0.1% and the Disappearing Middle Class,” in Christian E. Weller, ed., *Inequality, Uncertainty, and Opportunity: The Varied and Growing Role of Finance in Labor Relations*, Cornell University Press, 2015: 143-192; William Lazonick, Philip Moss, and Joshua Weitz, “How the Disappearance of Unionized Jobs Obliterated an Emergent Black Middle Class,” Institute for New Economic Thinking Working Paper No. 1255, June 15, 2021, <https://www.ineteconomics.org/research/research-papers/how-the-disappearance-of-unionized-jobs-obliterated-an-emergent-black-middle-class>.

² William Lazonick, “‘The New Normal is ‘Maximizing Shareholder Value’: Predatory Value Extraction, Slowing Productivity, and the Vanishing Middle Class,” *International Journal of Political Economy*, 46, 4, 2017: 217-226; William Lazonick and Jang-Sup Shin, *Predatory Value Extraction: How the Looting of the Business Corporation Became the US Norm and How Sustainable Prosperity Can Be Restored*, Oxford University Press, 2020, ch. 1; William Lazonick, Philip Moss and Joshua Weitz, “‘Build Back Better’ Needs an Agenda for Upward Mobility,” Institute for New Economic Thinking, January 25, 2021, <https://www.ineteconomics.org/perspectives/blog/build-back-better-needs-an-agenda-for-upward-mobility>.

³ U.S. House of Representatives, “H.R. 3684 – Infrastructure Investment and Jobs Act,” 117th Congress (2021-2022), *Congress.gov*, <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

⁴ U.S. House of Representatives, “H.R. 928 – American Family Act of 2021,” 117th Congress (2021-2022), *Congress.gov*, <https://www.congress.gov/bill/117th-congress/house-bill/928/text?q=%7B%22search%22%3A%5B%22HR+1%22%5D%7D&r=24&s=1>.

corporations, I argue that unless Build Back Better includes an effective policy agenda to encourage and enable corporate investment in innovation, the Biden administration's program for attaining stable and equitable economic growth will fail.

What does the investment triad do?

- *Household units* invest in the education of the young with a view toward providing them with the knowledge and aptitudes that they will need to function as productive adults. Later, these younger adults may use the income from productive employment to raise families of their own. Critical determinants of household investments in productive capabilities are the employment incomes earned by parents, their provision of household services, the quality of education available to the young, and the number of years over which they receive their education. Household units also invest in critical physical infrastructure in the form of homes. A productive society requires these investments by the *supportive family*.
- *Government agencies* support investments in productive capabilities made by household units by providing schooling that households could not afford on their own. A well-financed primary, secondary, and tertiary education system is a necessary condition for society to embark on a path of sustained development that can enable most of the population to attain a higher standard of living.⁵ By supporting basic and applied research, government agencies can also be charged with investing in the creation of new scientific and engineering knowledge that would otherwise not come into existence. As a critical component of investment in productive capabilities, government agencies are involved in providing services for public and personal health. In addition, we rely on government agencies to invest in physical infrastructure such as transportation systems, communication systems, energy systems, and water and waste systems. Government investments in productive resources, both human capabilities and physical infrastructure, manifest the presence of the *developmental state*.
- *Business firms* make use of the capabilities and infrastructure provided by government and household investments as foundations for further in-house investment in human resources in combination with expenditure on plant and equipment. Their purpose is the generation of goods and services to be sold in product markets at prices that exceed costs. In high-tech fields, business firms may need to make specialized in-house investments in capabilities to absorb the advanced knowledge resulting from investments by government agencies. In many cases, government agencies make strategic investments in knowledge-creation through business firms in the form of research contracts, procurement contracts, and financial subsidies. It is typically through on-the-job experience in business firms and government agencies that individuals build on their formal educations and accumulate the productive capabilities that enable them to contribute to the innovation process. The development and utilization of these productive capabilities are the essence of *innovative enterprise*.

The fundamental weakness of the neoclassical theory of the market economy, which dominates the conventional view of how an advanced economy should function to achieve superior economic

⁵ William Lazonick, *Sustainable Prosperity in the New Economy? Business Organization and High-tech Employment in the United States*, W. E. Upjohn Institute for Employment Research, 2009, ch. 5, <https://doi.org/10.17848/9781441639851>.

performance, is that it lacks a theory of innovative enterprise.⁶ Indeed, the conventional “theory of the firm” that posits “perfect competition” as the ideal, even if unattainable, foundation for superior economic performance is based on the obviously absurd argument that the more unproductive the firm, the more efficient the allocation of the economy’s resources.⁷ This view of the world promotes government policies that seek to make the “market” omnipotent and “the firm” impotent in the resource-allocation process.⁸

If we want to attain higher living standards, we need highly productive, and powerful, firms that transform technologies and access markets to generate higher-quality, lower-cost products—the definition of innovative enterprise. The most successful of these firms inevitably gain substantial power over the allocation of the economy’s resources and the operation of its markets. If left unchecked, these powerful corporations can fall prey to “predatory value extraction,” as certain parties, including senior executives and shareholder activists who extract far more value from the firm than they contribute to value creation by the firm, exercise strategic control over the allocation of the corporation’s vast resources.⁹ For the sake of attaining stable and equitable growth, these large and powerful firms must be governed for the common good. The centrality of the investment triad to innovative enterprise provides an economic as well as moral basis for the implementation of institutions of corporate governance for achieving these social objectives.¹⁰

With appropriate governance institutions in place, the investment triad enables innovative enterprise to function as a foundation for sustainable prosperity. Stable and equitable growth occurs when the investment strategies of households, governments, and businesses interact as supportive families, developmental states, and innovative enterprises. Households and governments interact through investments in education. Governments and businesses interact in the development of the high-tech knowledge base. Businesses and households interact through the employment relationship.

Business firms provide adults in household units with employment that, with sufficient productivity, should enable them to support their families. Through formal and on-the-job training, business firms also invest in the capabilities of people whom they employ. A firm has an incentive to retain the people whom it has trained. It generally does so through pay increases and promotions to jobs that require superior functional capabilities and greater hierarchical responsibilities. Indeed, households’ living standards increase over time primarily through in-house pay increases and promotions for valued employees in stable employment relations at innovative enterprises. It is through the employment relations of innovative enterprises, not labor-market supply and demand,

⁶ See William Lazonick, *Business Organization and the Myth of the Market Economy*, Cambridge University Press, 1991; William Lazonick and Mary O’Sullivan, eds., *Corporate Governance and Sustainable Prosperity*, Palgrave, 2002; Lazonick, *Sustainable Prosperity in the New Economy?*; Lazonick and Shin, *Predatory Value Extraction*.

⁷ William Lazonick, “Is the Most Unproductive Firm the Foundation of the Most Efficient Economy? Penrosian Learning Confronts the Neoclassical Fallacy,” *International Review of Applied Economics*, 36, 2, 2022: 1-32.

⁸ William Lazonick, “The Theory of the Market Economy and the Social Foundations of Innovative Enterprise,” *Economic and Industrial Democracy*, 24, 1, 2003: 9-44.

⁹ Lazonick and Shin, *Predatory Value Extraction*.

¹⁰ See William Lazonick, “Maximizing Shareholder Value as an Ideology of Predatory Value Extraction,” in Knut Sogner and Andrea Colli, eds., *The Emergence of Corporate Governance*, Routledge, 2021: 170-186.

that a nation such as the United States can generate the stable and equitable growth that supports a thriving middle class.¹¹

In short, the investment triad puts in place the productive resources that are essential to a prosperous economy. Investments in human capabilities and physical infrastructure by household units, government agencies, and business firms must be financed. Investments in educating the labor force and the housing stock in which families reside are generally funded by some combination of after-tax household incomes supplemented by household debt, along with government tax revenues supplemented by debt issues at the local, state, and federal levels. To some extent, business firms finance the education of the labor force through corporate taxes, philanthropic contributions, and direct payments to employees for their own educations or their children's schooling as part of employment benefits. Corporate taxes can also be important for funding government investments in physical infrastructure.

Ultimately, the ability of household units and government agencies to afford investments in productive resources requires business firms to utilize and further develop those investments in human capabilities and physical infrastructure. These business firms must produce and sell competitive—high-quality, low-cost—products to survive. The innovative enterprise generates these competitive products, making it central to the triadic investment system that can put a society on a path to sustainable prosperity.

The business firms that dominate the U.S. economy are large corporations. Table 1 shows the distribution of U.S. business-sector civilian employment by firm size for 2017 (the latest data available that includes business revenues).¹² Business-sector employment is about 84 percent of total civilian employment in the U.S. economy. In 2017, 2,156 firms with five thousand or more employees in the United States, with an average of 20,859 people on the payroll, accounted for 35.0 percent of all business-sector employees, 40.0 percent of payrolls, and 45.2 percent of revenues. Just 514 firms with twenty thousand or more employees, with an average of 57,428, represented 23.0 percent of all business-sector employees, 25.1 percent of all payrolls, and 27.5 percent of all revenues. In 2017, there were 1,514 business firms with \$2.5 billion or more in revenues, which accounted for 27.4 percent of business-sector employment, 35.4 percent of payrolls, and 48.2 percent of revenues.¹³

¹¹ Lazonick, "Labor in the Twenty-First Century"; Lazonick, "Is the Most Unproductive Firm the Foundation of the Most Efficient Economy?"

¹² The U.S. Census Bureau collects data on business revenues in years ending in 2 and 7. For employment data without revenues for 2018, see U.S. Census Bureau, "2018 SUSB Annual Data Tables by Establishment Industry," May 20, 2021, <https://www.census.gov/data/tables/2018/econ/susb/2018-susb-annual.html>.

¹³ U.S. Census Bureau, "2017 SUSB Annual Data Tables by Establishment Industry," March 2020, last revised May 28, 2021; <https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html>. In 2018, firms with 5,000 or more employees had 35.3 percent of all business-sector employees and 40.5 percent of payrolls, while firms with 20,000 or more employees, having increased from 514 in 2017 to 537 in 2018, had 23.4 percent of employees and 26.0 percent of payrolls.

Table 1. Business firms in the U.S. economy, by establishments, employees, payrolls, and revenues, 2017

2017	Firms	Establishments	Paid employees	Annual payroll	Annual revenues	No. of firms	Ave. no. of employees
	No.	No.	No.	\$ billions	\$ billions		
All firms	5,996,900	7,860,674	128,591,812	6,725	37,414	5,996,900	21
Percent of all firms	%	%	%	%	%		
<5 employees	61.67	47.1	4.6	4.1	4.1	3,698,086	1.6
5-19 employees	27.38	21.5	11.8	8.8	7.5	1,641,832	9.2
20-99 employees	9.08	9.4	16.6	13.8	11.7	544,485	39
100-499 employees	1.54	4.9	14.1	13.6	12.2	92,358	196
500+ employees	0.34	17.1	52.9	59.7	64.4	20,139	3,378
5,000+ employees	0.04	11.5	35.0	40.0	45.2	2,156	20,859
10,000+ employees	0.02	9.8	29.3	33.2	37.0	1,100	34,308
20,000+ employees	0.01	7.7	23.0	25.1	27.5	514	57,428

Source: U.S. Census Bureau, “2017 SUSB Annual Data Tables by Establishment Industry.”

The resource-allocation decisions of these large firms have a preponderant influence on the operation and performance of the U.S. economy, including investment in the productive capabilities of the labor force that are integral to the investment triad. In the next section of this paper, drawing on the experience of the U.S. economy over the past seven decades, I summarize how the United States moved toward stable and equitable growth from the late 1940s through the 1970s under a “retain-and-reinvest” corporate resource-allocation regime at major U.S. business firms. Companies retained a substantial portion of their profits to reinvest in the productive capabilities of their companies, including employees, who had the realistic expectation of a career with one company.

In contrast, since the early 1980s, under a “downsize-and-distribute” corporate resource-allocation regime, unstable employment, inequitable income, and sagging productivity have characterized the U.S. economy.¹⁴ As will also be discussed, in transition from retain-and-reinvest to downsize-and-distribute, many of the largest, most powerful firms adopt a “dominate-and-distribute” regime: Based on the innovative capabilities that they have previously developed, they dominate their industries but prioritize shareholders in the allocation of corporate resources.

The practice of open-market share repurchases—aka stock buybacks—at major U.S. business corporations has been central to the dominate-and-distribute and downsize-and-distribute regimes. Since the mid-1980s, stock buybacks have become the prime mode for the legalized looting the business corporation. I call this looting process “predatory value extraction”¹⁵ and contend that it is the fundamental cause of the increasing concentration of income among the richest household units and the erosion of middle-class employment opportunities for most Americans.

I conclude the paper by outlining a policy framework that could stop the looting of the business corporation and put in place social institutions that support sustainable prosperity. The agenda includes a ban on stock buybacks done as open-market repurchases, radical changes in incentives

¹⁴ William Lazonick and Mary O’Sullivan, “Maximizing Shareholder Value: A New Ideology for Corporate Governance,” *Economy and Society*, 29, 1, 2000: 13–35, <https://doi.org/10.1080/030851400360541>.

¹⁵ Lazonick and Shin, *Predatory Value Extraction*.

for senior corporate executives, representation of workers and taxpayers as directors on corporate boards, reform of the tax system to reward innovation and penalize financialization, and, guided by the investment-triad framework, government programs to support “collective and cumulative careers” of members of the U.S. labor force. Sustained investment in human capabilities by the investment triad, including business firms, would make it possible for an ever-increasing portion of the U.S. labor force to engage in productive careers that underpin upward socioeconomic mobility, manifested by a growing, robust, and hopeful American middle class.

2. Innovative Enterprise

An economy cannot attain stable and equitable growth unless its major business firms focus on investing in productive capabilities for the sake of generating higher-quality, lower-cost—that is, innovative—products. Innovative enterprise is a necessary condition for a nation’s population to attain higher living standards on a sustainable basis. The innovation process that can generate a higher-quality, lower-cost product is uncertain, collective, and cumulative, and, hence, a theory of innovative enterprise must comprehend these characteristics of the innovation process.¹⁶

- **Uncertain:** When investments in transforming technologies and accessing markets are made, the product and financial outcomes cannot be known in advance. If they were, the result would not be innovation. Hence the need for *strategy*.
- **Collective:** To generate higher-quality, lower-cost products, the firm must integrate the skills and efforts of large numbers of people with different hierarchical responsibilities and functional capabilities into the learning processes that are the essence of innovation. Hence the need for *organization*.
- **Cumulative:** Collective learning today enables collective learning tomorrow. These organizational-learning processes must be sustained continuously over time until financial returns can be generated through the sale of innovative products. Hence the need for *finance*.

Strategy, organization, and finance are generic activities in the operation of any business firm. But it is the social content of these generic activities, embodied in distinctive social relations, that can transform the interaction of strategy, organization, and finance into innovative performance. Even a relatively small firm is a highly complex social organization. What I call the “social conditions of innovative enterprise” framework provides a conceptual guide to empirical company-level investigation of how a business firm operates and performs over time. Specifically, given the three generic activities of the firm, strategic control, organizational integration, and financial commitment are social conditions that can enable the firm to manage the uncertain, collective, and cumulative character of the innovation process.

- **Strategic control:** For innovation to occur in the face of technological, market, and competitive uncertainties, executives who control corporate resource allocation must have the abilities and incentives to make strategic investments in innovation. Their abilities depend on their

¹⁶ William Lazonick, “The Theory of Innovative Enterprise: Foundations of Economic Analysis,” in Thomas Clarke, Justin O’Brien, and Charles R. T. O’Kelley, eds., *The Oxford Handbook of the Corporation*, Oxford University Press, 2019: 490-514, <https://doi.org/10.1093/oxfordhb/9780198737063.013.12>.

knowledge of how strategic investments in new productive capabilities can enhance the firm's existing capabilities. Their incentives depend on alignment of their personal interests with the firm's purpose of generating innovative products.

- **Organizational integration:** Implementation of an innovation strategy requires integration of people working in a complex division of labor into collective and cumulative learning processes. Work satisfaction, promotion, remuneration, and benefits are important instruments in a reward system that motivates and empowers employees to engage in collective learning over a sustained period of time.
- **Financial commitment:** For collective learning to accumulate over time, the sustained commitment of "patient capital" must keep the learning organization intact. For a young company that, because it is a "start-up," has not yet been able to turn a profit, various forms of "venture capital" can provide financial commitment. For a going concern that has achieved sustained profitability, retained earnings—leveraged, if need be, by debt issues—are the foundation of financial commitment.

The uncertainty of an innovation strategy is embodied in the fixed-cost investments required to develop the productive capabilities that may, if the strategy is successful, result in a higher-quality product. Fixed cost derives from both the size and the duration of the innovative investment strategy. If the size of investment in physical capital tends to increase the fixed cost of an innovation strategy, so too does the duration of the investment required for an organization to engage in the collective and cumulative—or organizational—learning that, by transforming technologies and accessing markets, can result in innovative products.

But an innovation strategy that may eventually enable the firm to develop a higher-quality product may place that firm at a competitive disadvantage if it only attains low levels of output. The high fixed cost of an innovation strategy creates the firm's need to attain a high level of utilization of the productive resources it has developed—that is, "economies of scale." Given its existing productive capabilities, the innovating firm may experience increasing cost to maintain the productivity of variable inputs it buys as needed on the market to expand production. To overcome the constraint on its innovation strategy posed by reliance on the market to supply an input that results in increasing cost, the innovating firm integrates the production of the supply of that input into its internal operations. The development of the productive capability of this newly integrated input, however, adds to the fixed cost of the innovation strategy. The innovating firm is now under even more pressure to expand its sold output to transform high fixed cost into low unit cost.

In effect, to restate Adam Smith's first principle of economics enunciated in *The Wealth of Nations*,¹⁷ economies of scale are limited by the extent of the market. The firm's higher-quality product enables it to access a larger portion of the market than its competitors. The fixed cost of the innovation strategy depends, however, on investments in not only transforming technology but also accessing markets. Besides distribution facilities, accessing a larger market share may entail fixed costs for branding, advertising, distribution channels, and a salaried sales force. Learning

¹⁷ Adam Smith, "On the Division of Labour," in *An Inquiry into the Nature and Causes of the Wealth of Nations*, 5th ed., ed. Edwin Cannan, Methuen, 1904, first published in 1776.

about what potential buyers want, and convincing potential buyers that the firm's product is actually "higher quality," add to the fixed cost of the innovation strategy.

Indeed, in some industries, the fixed cost of accessing a larger market share is greater than the fixed cost of investing in the transformation of product and process technologies. An increase in fixed cost of accessing the market requires an even larger extent of the market to convert high fixed cost into low unit cost. A potent way for an innovating firm to attain a larger extent of the market is for the firm to share some of the gains of this cost transformation with its customers in the form of a lower product price.

Along with investment in plant and equipment, investment in productive resources entails training and retaining employees. When a company enhances an employee's productive capability, through either formal or on-the-job training, the employee's enhanced capability represents a fixed-cost asset that can improve the quality of the innovating firm's product, which in turn can enable the firm to attain a larger extent of the market to transform the increased fixed cost of its investment in human resources into low unit cost. When the firm succeeds in generating a higher-quality, lower-cost product, innovation drives the firm's growth.

To retain and motivate the employees whom the firm has hired and trained, the innovating firm can offer them higher pay, more employment security, superior benefits, and more interesting work, all of which add to the fixed cost of the asset that an employee's labor represents. If these rewards to employees result in innovative products, the gains of employees may result in an even more profitable firm. The innovating firm shares the gains of innovation with its employees by making investments in what I have called their "collective and cumulative careers." Individuals develop their own productive capabilities as members of collectivities organized by the firm (in some cases in collaborations with other firms or with government agencies). And the specialized knowledge that enables individuals to become more productive over time cumulates through their ongoing involvement in collective learning processes. Over the course of their careers, individuals may change employers, making it necessary for them to engage in collective and cumulative learning, in a coherent and continuous manner, across a series of organizations.

Career employees, therefore, can become more productive because of their sustained involvement in processes of collective and cumulative learning.¹⁸ In rewarding employees for this engagement, the innovating firm makes its employees better off. It can afford, and indeed profit from, the increased labor expense when the employee's productive capability enables the firm to gain a competitive advantage by generating higher-quality, lower-cost products than had previously been available. Under such circumstances, increases in labor income and increases in labor productivity tend to show a highly positive correlation.

When the innovating firm is successful, it may come to dominate its industry. The firm's output is far larger and its unit cost, and hence potentially its product price, are far lower than would be the case if a large number of small firms, with lower-quality products and lesser scale economies,

¹⁸ Lazonick et al., "Skill Development and Sustainable Prosperity"; Matt Hopkins and William Lazonick, "Who Invests in the High-Tech Knowledge Base?," Institute for New Economic Thinking, Working Group on the Political Economy of Distribution Working Paper No. 14, May 2014, <http://ineteconomics.org/ideas-papers/research-papers/who-invests-in-the-high-tech-knowledge-base>.

populated the industry. The overall gains from innovation depend on the relation between the innovating firm's cost structure and the industry's demand structure, while the distribution of those gains among the firm's various stakeholders depends on their relative power to appropriate portions of these gains.¹⁹

It is theoretically possible (although by no means inevitable) for the gains of an innovative enterprise to permit, simultaneously, higher pay, more stable employment, and better work conditions for its employees; a stronger balance sheet for the firm; more secure paper for creditors; higher dividends and stock prices for shareholders; more tax revenues for governments; and higher-quality products at lower prices for consumers. To some extent, what is theoretically possible was historical reality. In the rise of the United States to global industrial leadership during the twentieth century, a retain-and-reinvest resource-allocation regime enabled a relatively small number of business enterprises in a wide range of industries to grow to employ tens of thousands, or even hundreds of thousands, of people and attain dominant product-market shares.²⁰

The 50 largest U.S. industrial corporations by revenues in 1957 averaged 87,080 employees worldwide in 1957, 117,393 in 1967, and 119,093 in 1977. In total, these 50 companies employed 4.4 million people worldwide (equivalent to 6.4 percent of the U.S. civilian labor force) in 1957, 5.9 million (7.5 percent) in 1967, and 6.0 million (5.8 percent) in 1977. Table 2 shows the changes in employment over this period for the 20 largest employers in 1957 and in 1977.

¹⁹ William Lazonick, *Competitive Advantage on the Shop Floor*, Harvard University Press, 1990; Lazonick, "The Theory of Innovative Enterprise."

²⁰ Alfred D. Chandler, Jr., *The Visible Hand: The Managerial Revolution in American Business*, Harvard University Press, 1977; Alfred D. Chandler, Jr., *Scale and Scope: The Dynamics of Industrial Capitalism*, Harvard University Press, 1990; William Lazonick, "Corporate Restructuring," in Stephen Ackroyd, Rose Batt, Paul Thompson, and Pamela Tolbert, eds., *The Oxford Handbook of Work and Organization*, Oxford University Press, 2004: 577-601; Lazonick, *Sustainable Prosperity in the New Economy?* chs. 2 and 3.

Table 2. Worldwide corporate employment, 1957-1977, 20 largest U.S.-based industrial employers in 1957 and 1977

<i>Company</i>	<i>Rank 1957</i>	<i>1957</i>	<i>1962</i>	<i>1967</i>	<i>1972</i>	<i>1977</i>	<i>Rank 1977</i>
General Motors	1	588,160	604,278	728,198	759,543	797,000	1
General Electric	2	282,029	258,174	375,000	369,000	384,000	3
U.S. Steel	3	271,037	194,044	197,643	176,486	165,845	8
Ford Motor	4	191,759	302,563	394,323	442,607	479,000	2
Bethlehem Steel	5	166,859	122,089	131,000	109,000	94,000	22
Standard Oil (NJ)/Exxon ¹	6	160,000	150,000	150,000	141,000	127,000	14
Western Electric	7	144,055	151,174	169,700	205,665	162,000	9
Chrysler	8	136,187	77,194	215,907	244,844	250,833	6
Westinghouse Electric	9	128,572	109,966	132,049	183,768	141,394	11
ITT	10	128,000	157,000	236,000	428,000	375,000	4
Goodyear Rubber and Tire	11	101,386	95,740	113,207	145,201	159,890	10
Boeing	12	94,998	104,100	142,700	58,600	66,900	42
Sperry Rand	13	93,130	103,545	101,603	85,574	85,684	28
General Dynamics	14	91,700	84,500	103,196	60,900	73,268	36
Du Pont (E.I.) de Nemours	15	90,088	93,159	111,931	111,052	131,317	13
Firestone Tire & Rubber	16	88,323	83,909	95,500	109,000	115,000	18
Douglas/McDonnell Douglas ³	17	78,400	44,000	140,050	86,713	61,577	47
RCA	18	78,000	87,000	128,000	122,000	111,000	20
Socony Mobil Oil/Mobil Oil/Mobil ⁴	19	77,000	74,900	75,800	75,400	200,700	7
Swift/Esmark ⁵	20	71,900	54,200	48,300	33,600	44,700	85
OTHER COMPANIES AMONG TOP 20 EMPLOYERS IN 1977							
IBM	26	60,281	81,493	221,866	262,152	310,155	5
United Aircraft/United Technologies ⁶	24	61,688	63,461	78,743	63,849	138,587	12
Eastman Kodak	37	50,300	47,800	105,600	114,800	123,700	15
Gulf & Western Industries ⁷	na	na	na	46,000	65,000	116,600	16
North Amer. Aviation/Rockwell Int'l. ⁸	30	54,660	97,728	115,326	80,045	115,162	17
Union Carbide	23	64,247	58,798	99,794	98,114	113,669	19

Notes: ¹Standard Oil of New Jersey (Esso) changed its name to Exxon from 1972. ²U.S. employment only. ³Douglas Aircraft merged with McDonnell Aircraft in 1967 to form McDonnell Douglas. ⁴Socony Mobil Oil changed its name to Mobil Oil in 1966, and then to Mobil in 1976. ⁵Swift became the core company of Esmark in 1977. ⁶United Aircraft changed its name to United Technologies in 1975. ⁷Originating as a Michigan autoparts distributor, Gulf & Western Industries acquired Paramount Pictures in 1966 and became a major conglomerate. ⁸The 1967 merger of North American Aviation and Rockwell-Standard created North American Rockwell, renamed Rockwell International in 1973

Sources: Fortune 500 lists, *Fortune*, June 1958, July 1963, 15 June 1968, May 1973, 8 May 1978.

These 20 companies employed 3.1 million people worldwide in 1957, 3.8 million in 1967, and 4.0 million in 1977. The sectors with the largest employers included automobiles, tires, steel, electrical machinery and electronics, aerospace, and oil refining, and chemicals. Over this period, as it became the world's dominant computer company, IBM increased its employment five-fold, rising from the 24th largest employer in 1957 to the 5th largest in 1977.

Not all the top 20 companies in 1957 increased their employment over the subsequent two decades. The two steel companies in the list downsized substantially from the 1950s to the 1970s, while the two aircraft manufacturing companies had highly cyclical employment, with Douglas having a huge increase its labor force when it merged with McDonnell in 1967. On the list as well are two companies, ITT and Gulf & Western, that grew to be very large during the 1960s conglomerate

movement, which in historical retrospect represented the first important stage in the financialization of the U.S. corporate economy, with corporate growth being driven by acquisition of companies in industries that were unrelated to one another by technologies or markets.²¹

Notwithstanding conglomeration, most of the companies listed in Table 2 were in retain-and-reinvest mode during these two decades. Companies retained corporate profits and reinvested them in productive capabilities, including processes of collective and cumulative learning. Companies integrated personnel into learning processes through career employment. Into the 1980s, the norm of a “career with one company” (CWOC) prevailed at major U.S. corporations.²² A steady stream of dividend income out of profits and the prospect of higher future stock prices based on the next generation of innovative products gave shareholders an interest in retain-and-reinvest.

In the immediate post-World War II decades, the beneficiaries of a retain-and-reinvest corporate resource-allocation regime, with its CWOC norm, were mainly white males, be they high-school-educated blue-collar workers or college-educated white-collar workers. At the blue-collar level, the presence of industrial unions helped to ensure that employees would experience employment stability and income equity. At the white-collar level, when a company trained employees at an early stage in their careers, it sought to retain them by offering the promise of a career with the company, topped off with a company-funded and nonportable defined-benefit pension based on the employee’s years of service.

For minorities and women, who had been largely left out of this postwar CWOC bargain, access to more stable employment and more equitable income was supported by the Civil Rights Act of 1964 and the launch of the Equal Employment Opportunity Commission (EEOC) the following year. At that point, it was assumed that the surest path to upward socio-economic mobility for both high-school-educated blue-collar and college-educated white-collar workers was through career employment in one of the major business corporations that dominated the U.S. economy.²³ This career-with-one-company norm was, for example, the point of departure for a 31-volume study, *The Racial Policies of American Industry* (RPAI), carried out at Wharton in the last half of the 1960s and early 1970s, on the implementation of equal employment opportunity, with a focus on upward mobility along hierarchical job structures within major business corporations.²⁴

In a project supported by the Institute for New Economic Thinking, Philip Moss, Joshua Weitz, and I have documented in detail how by the 1970s hundreds of thousands of African Americans with no more than high-school diplomas were attaining middle-class status through employment in unionized semi-skilled jobs in mass-production industries such as automobile, steel, and

²¹ Lazonick, “Corporate Restructuring”

²² Lazonick, *Sustainable Prosperity in the New Economy?*, ch. 3.

²³ William Lazonick, Philip Moss, and Joshua Weitz, “The Equal Employment Opportunity Omission,” Institute for New Economic Thinking Working Paper No. 53, December 5, 2016, <https://www.ineteconomics.org/research/research-papers/the-equal-employment-opportunity-omission>; William Lazonick, Philip Moss, and Joshua Weitz, “How the Disappearance of Unionized Jobs Obliterated an Emergent Black Middle Class,” Institute for New Economic Thinking Working Paper No. 125, June 15, 2020, <https://doi.org/10.36687/inetwp125>.

²⁴ For the thinking underpinning the RPAI study, see Herbert R. Northrup and Richard L. Rowan, *The Negro and Employment Opportunity: Problems and Practices*, The University of Michigan, 1965, pp. v-x. For a summary of its arguments and evidence, supplemented by employment data from the EEOC, company reports, and other studies, see Joshua Weitz, William Lazonick, and Philip Moss, “Employment Mobility and the Belated Emergence of the Black Middle Class,” Institute for New Economic Thinking Working Paper No. 143, January 2021, <https://www.ineteconomics.org/research/research-papers/employment-mobility-and-the-belated-emergence-of-the-black-middle-class>.

electronics manufacturing. As a result, a Black blue-collar middle class began to emerge.²⁵ During this period, however, white males maintained privileged access to intergenerational upward mobility from blue-collar jobs to white-collar jobs as the sons of blue-collar workers obtained higher educations followed by CWOC employment in business corporations.

In the 1970s, females with college educations (disproportionately white) also gained significantly increased access to career employment in business corporations. Their upward mobility was obstructed, however, by the persistence of the “glass ceiling,” set in place by the ideology that they would give up or interrupt their careers when children arrived in order to assume the traditional middle-class “stay-at-home-mother” role.²⁶ Thus, even women who chose not to have children, or who had household arrangements for childcare that enabled them to devote themselves to careers in business firms or government agencies, continued to face gender discrimination based on presumptions concerning the household division of labor.

From the late 1970s and continuing to the present, however, for masses of Americans, including white males, the quantity and quality of employment opportunities that could support upward mobility within major business corporations have eroded, while the distribution of income within the companies has grown increasingly unequal.²⁷ By the first half of the 1980s, some acute observers of blue-collar employment relations perceived that the U.S. income distribution was taking a “great U-turn.”²⁸ In retrospect, we now know that since that change in direction in the early 1980s, the United States has continued down the road to extreme income inequality and the erosion of middle-class employment opportunity. The investment-triad framework provides insights into this historic change in the direction of U.S. economic performance—essentially the end of the national quest for sustainable prosperity—by focusing on the transformation of the dominant regime of resource allocation among major U.S. industrial corporations from retain-and-reinvest to downsize-and-distribute.

3. From Retain-and-Reinvest to Downsize-and-Distribute

Under a retain-and-reinvest regime, the corporation retains earnings and reinvests them in the productive capabilities embodied in its labor force. Under downsize-and-distribute, the corporation lays off experienced, often more expensive, workers and distributes corporate cash to shareholders.²⁹ Since the beginning of the 1980s, employment relations in U.S. industrial corporations have undergone three major structural changes, summarized as “rationalization,” “marketization,” and “globalization,” by means of which U.S. business corporations have

²⁵ Weitz et al., “Employment Mobility”; William Lazonick, Philip Moss, and Joshua Weitz, “The Unmaking of the Black Blue-Collar Middle Class,” Institute for New Economic Thinking Working Paper No. 159, May 20, 2021, <https://www.ineteconomics.org/research/research-papers/the-unmaking-of-the-black-blue-collar-middle-class>.

²⁶ For a controlled experiment on gender discrimination based on assumptions of household obligations as impediments to the corporate careers of women, see Benson Rosen and Thomas H. Jerdee, “Sex Stereotyping in the Executive Suite,” *Harvard Business Review*, March-April 1974: 45-58.

²⁷ William Lazonick, Philip Moss, and Joshua Weitz, “Equality Denied: Tech and African Americans,” Institute for New Economic Thinking Working Paper No. 177, February 18, 2022, <https://www.ineteconomics.org/research/research-papers/equality-denied-tech-and-african-americans>.

²⁸ Bennett Harrison and Barry Bluestone, *The Great U-Turn: Corporate Restructuring and the Polarizing of America*, Basic Books, 1986; Bennett Harrison, Chris Tilly, and Barry Bluestone, “Wage Inequality Takes a Great U-Turn,” *Challenge*, 29, 1, 1986: 26–32.

²⁹ Lazonick and O’Sullivan, “Maximizing Shareholder Value.”

downsized their U.S. labor forces, with downward rather than upward socioeconomic mobility as the result.³⁰

These changes in employment relations eliminated *existing* middle-class jobs in the United States. The failure of the U.S. economy to replace these jobs with new middle-class employment opportunities, however, cannot be attributed to these changes in employment relations alone. The financialization of the business corporation, manifested by massive distributions of corporate cash to shareholders in the form of dividends and stock buybacks, has exacerbated the rate of job loss and has limited investment in new career employment opportunities for American workers.

From the early 1980s, *rationalization*, characterized by plant closings, terminated the jobs of high school-educated blue-collar workers, most of them well-paid union members. From the early 1990s, *marketization*, characterized by the end of a career with one company as an employment norm, placed in jeopardy the job security of middle-aged white-collar workers, many of them college educated. From the early 2000s, *globalization*, characterized by the accelerated movement of even advanced employment opportunities offshore to lower-wage nations, especially China and India, left all members of the U.S. labor force vulnerable to displacement, whatever their educational credentials and work experience.³¹

As documented in my book, *Sustainable Prosperity in the New Economy?*, the offshoring of employment in the information-and-communication-technology (ICT) industries had begun in the 1960s and was operating on a large scale in the context of the microelectronics revolution of the 1980s and 1990s. Most of the offshoring through the 1980s was to gain access to low wage but literate female labor for testing and assembling of semiconductors and other electronics components in Hong Kong, Singapore, South Korea, Taiwan, and Malaysia. U.S. multinational electronics companies employed indigenous engineers and managers (all males) to run these Asian plants, thus launching many technology and management careers in those nations.

Large numbers of young Asians with undergraduate degrees, especially in science and engineering, also came to the United States for graduate education and work experience. During the 1990s, there was an enormous increase in the employment of college-educated Asians, particularly from India and China, in U.S. ICT companies under H-1B, L-1, and employment-based permanent-resident visas. By the 2000s, highly educated Asians had become central to the competitive capabilities of U.S.-based ICT companies.³² Large numbers of these personnel, however, also returned to their home nations, especially China and India, armed with more education and experience, to contribute to the upgrading of global value chains and engage in indigenous innovation.³³

³⁰ Lazonick, "Labor in the Twenty-First Century"; Lazonick et al., "The Equal Employment Opportunity Omission."

³¹ See William Lazonick, *Sustainable Prosperity in the New Economy?*, ch. 5.

³² Lazonick et al., "Equality Denied: Tech and African Americans."

³³ Qiwen Lu, *China's Leap into the Information Age: Innovation and Organization in the Computer Industry*, Oxford University Press, 2000; William Lazonick, "Indigenous Innovation and Economic Development: Lessons from *China's Leap into the Information Age*," *Industry & Innovation*, 11, 4, 2004: 273-298; Yu Zhou, William Lazonick, and Yifei Sun, eds., *China as an Innovation Nation*, Oxford University Press, 2016; Kaidong Feng, *Innovation and Industrial Development in China: A Schumpeterian Perspective in China's Economic Transformation*, Routledge, 2020; Yin Li and William Lazonick, "China's Development Path," Institute for New Economic Thinking Working Paper, forthcoming 2022.

Initially, structural changes in employment through rationalization, marketization, and globalization were business responses to changes in technologies, markets, and competition. During the onset of the rationalization phase in the early 1980s, plant closings as well as cost-cutting by offshoring parts production were reactions to the superior productive capabilities of Japanese competitors in consumer-durable and related capital-goods industries that employed significant numbers of unionized blue-collar workers. During the onset of the marketization phase in the early 1990s, the erosion of the norm of a career with one company among white-collar workers was a response to the dramatic technological shift from proprietary systems to open systems, integral to the microelectronics revolution. This shift favored younger workers, with the latest computer skills acquired through higher education and transferable across companies, over older workers with many years of firm-specific experience. During the onset of the globalization phase in the early 2000s, the sharp acceleration in the offshoring of high-end jobs was a response to the emergence of large supplies of highly educated but lower-wage labor in developing nations such as China and India. Linked to the United States through inexpensive communication and transportation systems, this alternative labor pool could perform increasingly sophisticated activities that had previously been carried out in the United States.³⁴

Once U.S. corporations transformed their employment relations, they often pursued rationalization, marketization, and globalization to cut current costs rather than to reposition their organizations to produce innovative products. Corporate profits ceased to provide funds for reinvesting in the growth of the firm and instead became “free cash flow” that could be distributed to shareholders to “maximize shareholder value.” Defining superior corporate performance as ever-higher quarterly earnings per share, companies turned to massive open-market stock repurchases to “manage” their own corporations’ stock prices. Trillions of dollars that could have been spent on investment in productive capabilities in the U.S. economy since the mid-1980s have been used instead to buy back corporate shares for the purpose of manipulating stock prices.³⁵

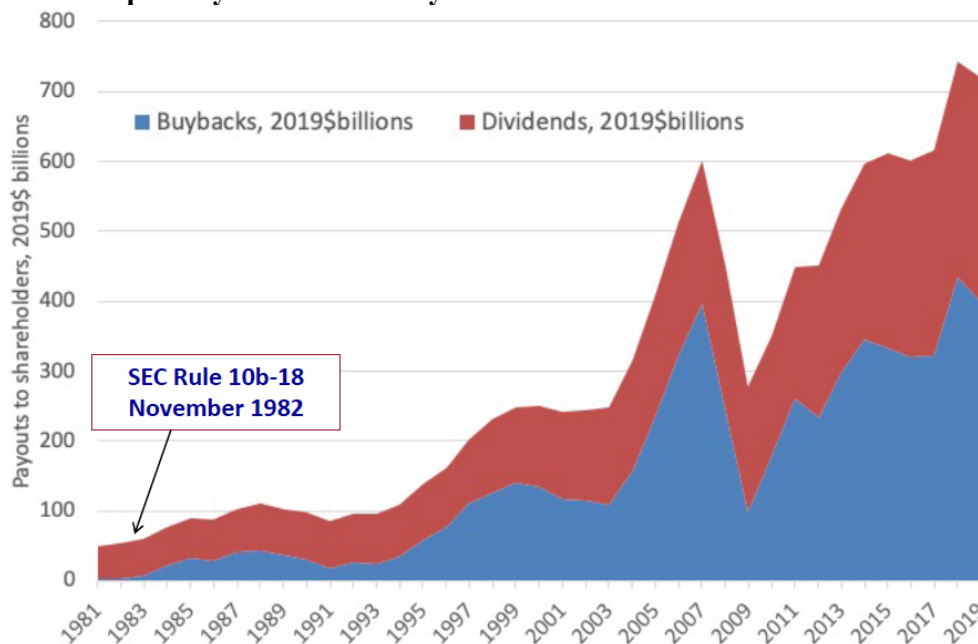
In 1997, buybacks first surpassed dividends in the U.S. corporate economy, and have far exceeded them in recent stock-market booms.³⁶ As a form of distribution to shareholders, buybacks done as open-market repurchases are much more volatile than dividends, with buybacks booming when stock prices are high. As Figure 1 shows, since the early 1980s, major U.S. corporations have been doing stock buybacks in addition to (not instead of) making dividend payments to shareholders. Figure 1 charts dividends and buybacks for the 216 companies included in the S&P 500 Index in January 2020 that were publicly listed from 1981 through 2019. Coming into the 1980s, buybacks were minimal, and from 1981 to 1983 buybacks for these 216 companies absorbed only 4.4 percent of net income, with dividends representing 49.7 percent. From 2017 to 2019, buybacks for the same 216 companies were 62.2 percent of net income and dividends 49.6 percent.

³⁴ Lazonick, *Sustainable Prosperity in the New Economy?*, ch. 5.

³⁵ William Lazonick, “Stock Buybacks: From Retain-and-Reinvest to Downsize-and-Distribute,” Center for Effective Public Management, Brookings Institution, April 2015, <https://www.brookings.edu/research/stock-buybacks-from-retain-and-reinvest-to-downsize-and-distribute/>; William Lazonick, “The Value-Extracting CEO: How Executive Stock-Based Pay Undermines Investment in Productive Capabilities,” *Structural Change and Economic Dynamics* 48, 2019: 53–68.

³⁶ Lazonick, “Stock Buybacks,” pp. 10–11,

Figure 1. Stock buybacks and cash dividends, 1981-2019, in 2019 \$billions, for the 216 business corporations in the S&P 500 Index in January 2020, publicly listed for all 39 years



Note: As discussed in the text below, SEC Rule 10b-18 refers to the rule adopted by the U.S. Securities and Exchange Commission in November 1982, which gives publicly listed business corporations a “safe harbor” against stock-price manipulation in doing large-scale stock buybacks as open-market repurchases.

Source: S&P Compustat database and company 10-K filings, compiled by Mustafa Erdem Sakinç and Emre Gömeç of the Academic-Industry Research Network.

Table 3 displays the data on buybacks and dividends in Figure 1 as percentages of net income for the 216 companies for 1981-1984 and then for five-year periods from 1985-1989 through 2015-2019. The proportions for 2005-2009 and 2015-2019 capture the surges in buybacks during years in which, except for 2008 and 2009, profits were high and the stock market was booming. From 2003 to 2007, the value of buybacks done by companies in the S&P 500 Index quadrupled. In general, these publicly listed companies have done buybacks when stock prices have been high and rising, as they have competed with one another to give manipulative boosts to their stock prices. These data also show that even as buybacks have absorbed a large proportion of net income, these companies have paid ample dividends. The half-decade 2015-2019 is particularly noteworthy for the extent of distributions to shareholders in the years preceding the onset of the Covid-19 pandemic.³⁷

³⁷ William Lazonick, Mustafa Erdem Sakinç, and Matt Hopkins, “Why Stock Buybacks are Dangerous for the Economy,” *Harvard Business Review*, January 7, 2020, [https://hbr.org/2020/01/why-stock-buybacks-are-dangerous-for-the-economy?ab=hero-subleft](https://hbr.org/2020/01/why-stock-buybacks-are-dangerous-for-the-economy?ab=hero-subleft;); William Lazonick and Matt Hopkins, “How ‘Maximizing Shareholder Value’ Minimized the Ventilators in the Strategic National Stockpile,” Institute for New Economic Thinking Working Paper No. 127, July 2020, <https://doi.org/10.36687/inetwp127>.

Table 3. Cash dividends (DV) and stock buybacks (BB) as percentages of net income (NI), 1981-2019, for the 216 business corporations in the S&P 500 Index in January 2020 that were publicly listed for all 39 years

	1981- 1984	1985- 1989	1990- 1994	1995- 1999	2000- 2004	2005- 2009	2010- 2014	2015- 2019
DV/NI%	48.3	50.3	53.9	37.0	40.5	40.7	35.7	50.5
BB/NI%	8.6	29.5	20.5	40.7	38.0	54.8	44.3	61.7
(DV+BB)/NI%	56.9	79.8	74.4	77.7	78.4	95.5	80.0	112.2

Source: S&P Compustat database and company 10-K filings, compiled by Mustafa Erdem Sakinç and Emre Gömeç of the Academic-Industry Research Network.

These distributions to shareholders come at the expense of rewards to employees in the form of higher pay, superior benefits, and more secure jobs as well as corporate investment in the new products and processes that can sustain a firm as an innovative enterprise in the future. These distributions to shareholders are a prime cause of the concentration of income among the richest households and the erosion of middle-class employment opportunities.³⁸ It is also the reason why U.S. corporations are falling behind global competitors in major technology sectors, including ICT, pharmaceuticals, and aviation, in which the United States was once the world leader.³⁹

As these data on distributions to shareholders show, since the mid-1980s, among corporations listed on U.S. stock markets—of which the New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotation (NASDAQ) exchange are by far the most important—trillions of dollars have been extracted from business corporations in the form of stock buybacks in addition to dividends. The two types of distributions to shareholders both drain corporate treasuries, but they differ in terms of how the gains from them are realized and the implications for corporate investment in productive resources. Shareholders who purchase shares of a company on the stock exchange can get a yield on that portfolio investment by *holding* shares. Open-market repurchases (which represent the vast majority of buybacks), in contrast, increase the gains of *sharesellers* who, as professional stock traders, are in the business of timing the buying and selling of shares, benefiting from access to nonpublic information on the precise days on which the company is executing buybacks. These privileged sharesellers include senior executives of the company doing the buybacks, Wall Street bankers, and hedge-fund managers.⁴⁰

Stable shareholders who buy corporate stocks for dividend yields should be opposed to buybacks. Instead, they should want corporate management to reinvest in the productive capabilities of the company as a basis for creating the next round of competitive products that can generate the profits out of which a stream of dividends can continue to be paid. If the firm is successful in making

³⁸ Lazonick, “Labor in the Twenty-First Century”; Lazonick, “The Value-Extracting CEO.”

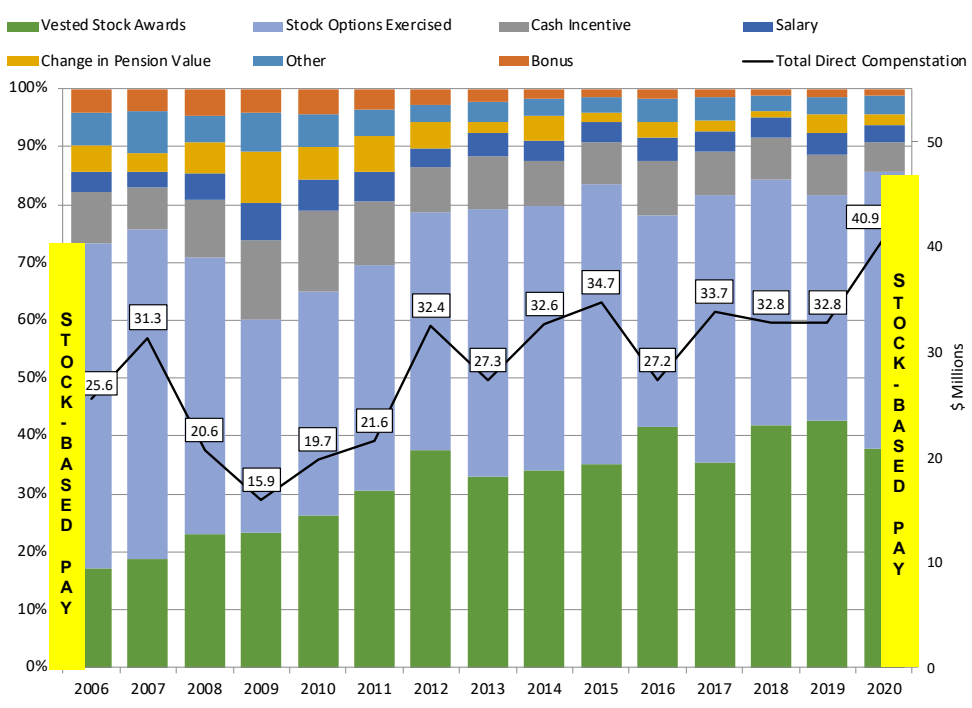
³⁹ See, for example, Marie Carpenter and William Lazonick, “Cisco: From Innovation to Financialization,” Academic-Industry Research Network, April 2022; Öner Tulum and William Lazonick, “Financialized Corporations in a National Innovation System: The US Pharmaceutical Industry,” *International Journal of Political Economy*, 47, 3-4, 2018: 281-316; William Lazonick and Mustafa Erdem Sakinç, “Make Passengers Safer? Boeing Just Made Shareholders Richer,” *The American Prospect*, May 31, 2019, <https://prospect.org/environment/make-passengers-safer-boeing-just-made-shareholders-richer/>; William Lazonick and Matt Hopkins, “Why the CHIPS Are Down: Stock Buybacks and Subsidies in the U.S. Semiconductor Industry,” Institute for New Economic Thinking Working Paper No. 165, November 2022, <https://www.ineteconomics.org/research/research-papers/why-the-chips-are-down-stock-buybacks-and-subsidies-in-the-u-s-semiconductor-industry>.

⁴⁰ Lazonick and Shin, *Predatory Value Extraction*.

these innovative investments, the shares of the company should rise in value, giving these shareholders a capital gain if and when they decide to sell some or all of their shares.

Why, then, are companies doing these massive distributions to shareholders? In my article “Profits Without Prosperity: Stock Buybacks Manipulate the Market and Leave Most Americans Worse Off,” published in *Harvard Business Review* in 2014,⁴¹ I argue that the stock-based remuneration of senior executives who exercise strategic control over resource allocation in these U.S. business corporations incentivizes them to manipulate their companies’ stock prices. Standard & Poor’s ExecuComp database provides the numbers needed to determine how much money the highest-paid corporate executives in the United States take home in total, as well as the proportion of their total compensation that is stock-based. As shown in Figure 2, the average total compensation of the 500 highest-paid executives in the United States in each year from 2006 to 2020 ranged from \$15.9 million in 2009, of which, even with the stock market depressed, stock-based pay was 60 percent of the total, to \$40.9 million in 2020, of which, with the stock market booming, stock-based pay was 86 percent of the total.

Figure 2. Average total remuneration, and its proportional components by percentages, of the 500 highest-paid executives of U.S. business corporations, 2006-2020



Note: Vested stock awards and stock options exercised are the realized gains from these two forms of stock-based compensation.
 Source: S&P ExecuComp database, calculations by Matt Hopkins of the Academic-Industry Research Network.

⁴¹ William Lazonick, “Profits Without Prosperity: Stock Buybacks Manipulate the Market and Leave Most Americans Worse Off,” *Harvard Business Review*, September 2014, 46–55, <https://hbr.org/2014/09/profits-without-prosperity>; see also Lazonick, “Stock Buybacks”; Lazonick, “The Value-Extracting CEO.”

Stock-based pay takes the form of stock options and stock awards. Stock options were much more widely used than stock awards in the 1990s. Since the mid-2000s, stock awards have increased in popularity, largely because it requires fewer shares in awards than in options to generate the same realized gains from stock-based pay.⁴² In 2006, with the average total compensation of the 500 highest-paid executives at \$25.6 million, realized gains from stock options represented 56 percent of the total, while realized gains from stock awards represented 17 percent. In 2020, the average total compensation of the 500 highest-paid executives was \$40.9 million, with realized gains from stock awards at 48 percent and realized gains from stock options at 38 percent. This stock-based pay incentivizes U.S. corporate executives to boost their companies' stock prices and amply rewards them for doing so. In stock buybacks, they have at their disposal an instrument to "maximize shareholder value" and, in the process, enrich themselves. In their massive and widespread use of this instrument, they have been participating in the looting of the U.S. business corporation.⁴³

Senior corporate executives have embraced shareholder-value ideology since the late 1980s, but they have not acted alone. In *Predatory Value Extraction*, Jang-Sup Shin and I classify senior executives as value-extracting *insiders*, asset managers (aka institutional investors) as value-extracting *enablers*, and shareholders (aka hedge-fund) activists as value-extracting *outsiders*.⁴⁴ As we detail in the book and as I summarize in the concluding section of this paper, there now exists in the United States a corrupt proxy-voting system that obliges asset-fund managers to vote the proxies for the shares in the securities portfolios that they manage, enabling shareholder activists with a stake of, say, one percent of a company's outstanding shares to assert immense pressure on corporate executives and directors to engage in downsize-and-distribute.

The stock-based pay of U.S. corporate executives is an important reason for the extreme concentration of income that has occurred since the 1980s among the richest households in the United States. Based on data from household federal tax filings, Figure 3 shows the share of income in the hands of the 0.1 percent of all households with the highest incomes, including capital gains, from 1916 to 2011. In 1975, the share of the top 0.1 percent was 2.56 percent of all U.S. incomes, the lowest proportion over the entire ninety-six-year period. The highest proportion was 12.28 percent in 2007, just before the financial crisis. During the 2008 stock market crisis, the share of the top 0.1 percent declined, but with the recovery their share bounced back. In 2012 (not included in Figure 3), the share of the top 0.1 percent was 11.33 percent, the fourth highest proportion recorded.⁴⁵ Clearly, from the late 1970s, on a dramatic scale, there was a reversal in the trend toward a somewhat falling share of income of the top 0.1 percent that had occurred in the decades after World War II.

Note that in Figure 3, a large part of the explosion of the share of the top 0.1 percent was in the form of "salaries," which includes *realized gains from stock-based pay* (stock options and stock awards) that appeared in the summary statistics of an executive's Form 1040 tax returns (the source of these data) as "Wages, salaries, tips, etc." Since 1976, virtually all realized gains from stock-

⁴² Matt Hopkins and William Lazonick, *Executive Pay: Analysis and Critique*, Cambridge Elements in Corporate Governance, forthcoming 2022.

⁴³ Lazonick, "The Value-Extracting CEO."

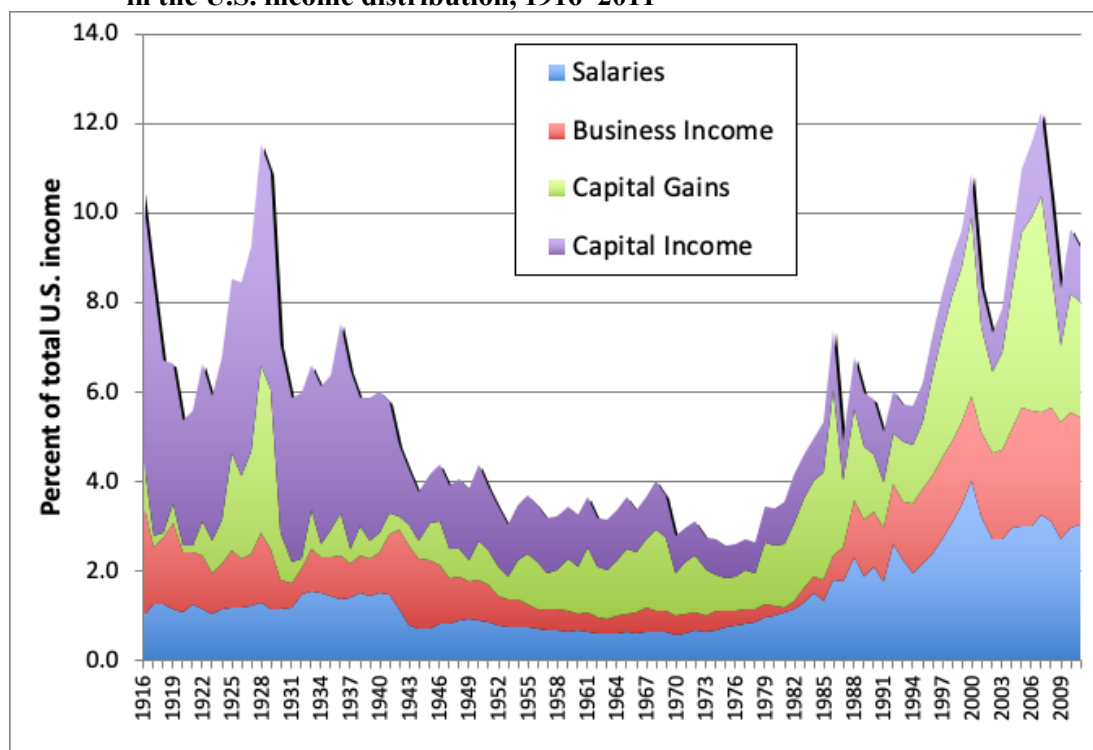
⁴⁴ Lazonick and Shin, *Predatory Value Extraction*.

⁴⁵ F. Alvaredo, T. Atkinson, T. Piketty, and E. Saez, "The World Top Incomes Database," <https://www.parisschoolofeconomics.eu/en/news/the-top-incomes-database-new-website/>.

based pay have been taxed at the ordinary income tax rates and hence are not included in the capital-gains portion of the incomes of the top 0.1 percent as shown in Figure 3.

Top executives of U.S. business corporations, both industrial and financial, are very well represented among the top 0.1 percent of the U.S. income distribution, with much, and often most, of their compensation coming from realized gains from exercising stock options and the vesting of stock awards. When this mode of compensating top executives is combined with the fact that Wall Street has, since the 1980s, judged the performance of corporations by their quarterly stock yields, the importance of stock-based pay in executive compensation is clear. Stock-based pay gives top executives powerful personal incentives to boost, from quarter to quarter, the stock prices of the companies that employ them. In stock buybacks, these executives have found a potent instrument for stock-market manipulation from which they can benefit personally, even if the stock-price boosts are only temporary.

Figure 3. Share of total U.S. incomes and its components of the top 0.1% of households in the U.S. income distribution, 1916–2011



Notes: The category “salaries” includes compensation from realized gains on exercising stock options and the vesting of stock awards. The data are not available in categories that permit the extension of this analysis of the components of the pay of the top 0.1 percent beyond

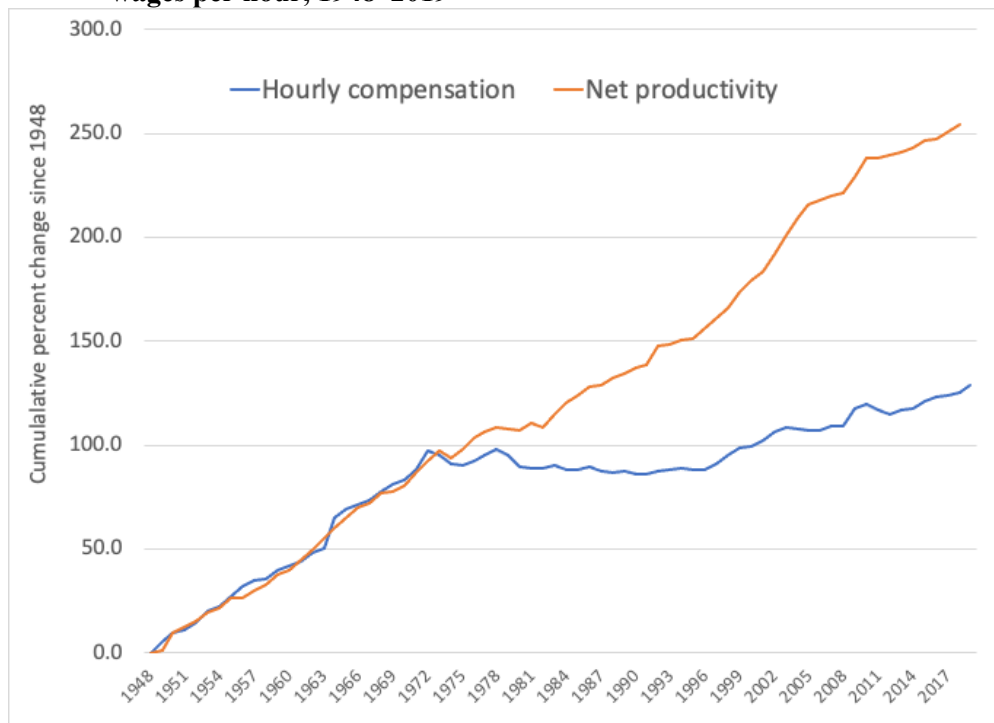
Source: “The World Top Incomes Database,” <https://www.parisschoolofeconomics.eu/en/news/the-top-incomes-database-new-website/> (top 0.1% income composition, 2011).

Most household income comes from working in paid employment, with the business sector accounting for about 84 percent of all U.S. civilian employment. Figure 4 shows the relation between the cumulative increase in hourly labor productivity and the cumulative increase in real hourly wages in the business sector of the U.S. economy from 1948 to 2019. From the late 1940s

to the mid-1970s, rates of increase in real wages kept up with rates of increase in labor productivity—an indicator of “shared prosperity.”⁴⁶

I contend that the prime reason for the trend toward more equality was the retain-and-reinvest regime of corporate resource allocation that prevailed in the post-World War II era, characterized by CWOC employment relations.⁴⁷ From the late 1970s, however, the productivity-growth rate began to outstrip the wage-growth rate, and over the ensuing decades the gap between the two grew wider and wider, as shown in Figure 4.

Figure 4. Cumulative annual percent changes in productivity per hour and real wages per hour, 1948–2019



Source: Data are from Economic Policy Institute, “The Productivity-Pay Gap,” May 2021, <https://www.epi.org/productivity-pay-gap/>.

In the late 1970s, the gap appeared as corporations looked for ways to suppress wage growth as profits were being eroded by inflation. During the following decades, as outlined above, the transformation of corporate employment relations through rationalization, marketization, and globalization served to widen the productivity-pay gap. In terms of the actual distribution of

⁴⁶ The Gini coefficient for U.S. households also shows a trend toward a somewhat more equal distribution of income in the post-World War II followed by a sharp reversal in the early 1980s, with persistent and ever-more extreme increases in income inequality to the present. U.S. Census Bureau, “Income Gini Ratio of Families by Race of Householder, All Races [GINIALLR],” retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/GINIALLR>, June 26, 2021. See also David Leonhardt, “Our broken economy, in one simple chart,” *New York Times*, August 7, 2017, <https://www.nytimes.com/interactive/2017/08/07/opinion/leonhardt-income-inequality.html>, which uses U.S. federal income-tax data to show that households lower in the income distribution in 1980 had higher gains income growth from 1946 to 1980 whereas the very richest households in the income distribution in 2014 had most of the gains in income growth from 1980 to 2014.

⁴⁷ Lazonick, “Labor in the Twenty-First Century”; Lazonick et al., “The Equal Employment Opportunity Omission.”

income, however, this gap was not only the result of the power of major corporations to suppress wages but also the siphoning of corporate productivity gains, amounting to trillions upon trillions of dollars, to shareholders in the form of dividends and buybacks.⁴⁸ As we shall see, of particular importance to the ways in which U.S. business corporations distribute income between employees and shareholders is SEC Rule 10b-18, adopted under the radar in November 1982 by the U.S. Security and Exchange Commission (SEC), transforming this federal government agency from a body that is supposed to mitigate stock-market manipulation to one that actively encourages it.⁴⁹

4. Shareholder-Value Ideology and the Looting of the U.S. Business Corporation

Stock buybacks incentivized by the stock-based pay of senior executives are the clearest manifestations of the financialization of the U.S. business corporation. This financialized mode of corporate resource allocation has been legitimized by the ideology that a business corporation should be run to “maximize shareholder value” (MSV). Through their stock options and stock awards, corporate executives who make the resource-allocation decisions to distribute cash to shareholders are themselves prime beneficiaries of the focus on rising stock prices, earnings per share, and total shareholder yield (dividends plus stock price gains) as the sole measures of corporate performance. As rationalization, marketization, and globalization have undermined stable and remunerative employment structures, the financialization of the U.S. corporation has entailed the distribution of corporate cash to shareholders through stock repurchases, usually in addition to generous cash dividends. Over the past two decades, at an accelerating rate, hedge-fund activists have joined senior corporate executives in the feeding frenzy in a process that can only be described as the legalized looting of the U.S. business corporation.⁵⁰

The dramatic change in trajectory from retain-and-reinvest to downsize-and-distribute that has occurred in the United States over the past four decades did not have to happen. Rather, it was imposed upon the U.S. labor force by the dominance of a highly damaging and fallacious ideology of the relation between corporate governance and economic performance. In the name of MSV, U.S. business executives have favored extracting value that workers have already created while also neglecting to invest in productive capabilities that can enable workers to create new sources of value in the future. In doing so, they have shifted, often dramatically, the distribution of income within the firm from workers to shareholders.

Fundamental to this reversal was the capture of the U.S. Securities and Exchange Commission (SEC) by free-market Chicago economists in 1981, following the election of Ronald Reagan as president of the United States. Reagan’s appointment of E. F. Hutton executive John Shad as chair

⁴⁸ In a 105-page paper on the evolution of wage suppression and wage inequality in the United States by the Economic Policy Institute, which is the originator of the “productivity-pay gap” metric, in Figure 4, there is no mention of stock buybacks as a cause of the gap. See Lawrence Mishel and Josh Bivens, “Identifying the Policy Levers Generating Wage Suppression and Wage Inequality,” Economic Policy Institute Report, May 13, 2021, at <https://www.epi.org/unequalpower/publications/wage-suppression-inequality/>.

⁴⁹ See Lazonick, “Profits Without Prosperity”; Lazonick, “Stock Buybacks”; Lenore Palladino, “The \$1 Trillion Question: New Approaches to Regulating Stock Buybacks,” *Yale Journal of Regulation*, 36, 2018: 89–105, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3274357; Ken Jacobson and William Lazonick, “License to Loot: Opposing Views of Capital Formation and the Adoption of SEC Rule 10b-18,” The Academic-Industry Research Network, forthcoming 2022; Lenore Palladino and William Lazonick, “Regulating Stock Buybacks: The \$6.3 Trillion Question,” *International Review of Applied Economics*, under revision 2022.

⁵⁰ Jacobson and Lazonick, “A License to Loot”; Lazonick and Shin, *Predatory Value Extraction*.

of the SEC put the agency that was supposed to eliminate fraud and manipulation from the nation's financial markets under the leadership of a Wall Street banker for the first time since Joseph Kennedy was the inaugural holder of that position in 1934–1935.

In the second year of Shad's chairmanship, the SEC promulgated Rule 10b-18, which gives a company a safe harbor against manipulation charges in doing open-market repurchases.⁵¹ Rule 10b-18 states that a company will not be charged with stock-price manipulation if, among other things, its buybacks on any single day are no more than 25 percent of the previous four weeks' average daily trading volume (ADTV). Under Rule 10b-18, moreover, there is no presumption of manipulation if the corporation's repurchases exceed the 25 percent ADTV limit.⁵² The adoption of Rule 10b-18 in 1982 was called a "regulatory about-face" from previous SEC views on the detection and prevention of manipulation of a company's stock price through open-market repurchases.⁵³ Under Rule 10b-18, many large publicly listed companies can do hundreds of millions of dollars of open-market repurchases per day, trading day after trading day, for the sole purpose of giving manipulative boosts to their stock prices (see Table 4).

Research undertaken by the Academic-Industry Research Network, supported by the Institute for New Economic Thinking, has analyzed the damage wrought by stock buybacks done by many of the companies listed in Table 4, which shows the top 20 repurchasers among industrial (or non-financial) corporations for 2010-2019.⁵⁴ Of these 20 companies, 13 distributed more than 100 percent of net income to shareholders over the decade while the other seven distributed 75 percent or more.

Coming into the pandemic, 12 companies on the list—Apple, Oracle, Microsoft, Cisco, Walmart, Intel, Home Depot, Johnson & Johnson, Amgen, Qualcomm, Disney, and Gilead—were in dominate-and-distribute mode, using the profits from their still-dominant market positions primarily to support their stock prices; while seven—Exxon Mobil, IBM, Procter & Gamble, General Electric, Merck, McDonald's, and Boeing—were in downsize-and-distribute mode, distributing corporate cash to shareholders as they downsized their labor forces. Pfizer had been in downsize-and-distribute mode through 2018, but, as discussed below, in 2019 began to eschew buybacks and augmented its labor force for the sake of investment in innovation.

⁵¹ U.S. Securities and Exchange Commission, "Purchases of Certain Equity Securities by the Issuer and Others; Adoption of Safe Harbor," November 17, 1982, *Federal Register* 47, 228, November 26, 1982: 53333–53341. See Palladino, "The \$Trillion Question."

⁵² U.S. Securities and Exchange Commission, "Division of Trading and Markets: Answers to Frequently Asked Questions Concerning Rule 10b-18 ('Safe Harbor' for Issuer Repurchases)," SEC Division of Trading and Markets, <http://www.sec.gov/divisions/marketreg/r10b18faq0504.htm>. For the safe harbor to be in effect, Rule 10b-18 also requires that the company refrain from doing buybacks at the beginning and end of the trading day, and that it execute all the buybacks through one broker only.

⁵³ Lloyd H. Feller and Mary Chamberlin, "Issuer Repurchases," *Review of Securities Regulation*, 17, 1, 1984: 993–998.

⁵⁴ See the references in note 43 above and the websites of the Institute for New Economic Thinking (<https://www.ineteconomics.org/research/experts/wlazonick>), the Academic-Industry Research Network (<https://theairnet.org/>), and *Harvard Business Review* (<https://hbr.org/search?term=william+lazonick>). Most recently, see William Lazonick, "Where Did You Go, Vice President Joe?" Institute for New Economic Thinking, March 4, 2022, <https://www.ineteconomics.org/perspectives/blog/where-did-you-go-vice-president-joe>.

Table 4. Twenty largest stock repurchasers, 2010-2019, among U.S. industrial corporations, their buybacks since fiscal 2020 through December 2021, and their SEC Rule 10b-18 safe-harbor average daily trading volume (ADTV) amounts for repurchases on October 19, 2019, and June 23, 2021

COMPANY	2010-2019				Since the end of fiscal 2019				ADTV amount	
	\$BB RANK	BB, \$b.	BB/NI%	(BB+DV)/NI%	BB, \$b.	last quarter for data	BB/NI%	(DV+BB)/NI%	October 21, 2019, \$m.	June 23, 2021, \$m.
APPLE	1	305.0	73	94	158.3	2021Q4	104	123	1,597	2,526
ORACLE	2	113.7	121	145	35.9	2021Q2	240	272	183	261
MICROSOFT	3	101.1	48	92	48.8	2022Q1	46	76	754	1,522
EXXON MOBIL	4	92.4	35	80	0.4	2021Q3	-5	-322	166	410
IBM	5	88.2	71	107	0.3	2021Q3	3	117	125	144
CISCO SYSTEMS	6	81.5	100	144	5.8	2022Q1	23	78	226	254
PFIZER	7	76.7	60	116	0.0	2021Q3	0	53	146	235
WALMART	8	70.2	50	91	10.0	2021Q3	42	88	141	259
INTEL	9	66.8	51	87	16.6	2021Q3	46	73	219	318
HOME DEPOT	10	64.4	93	137	11.2	2021Q3	43	88	188	299
JOHNSON & JOHNSON	11	62.1	49	110	5.7	2021Q3	18	79	267	280
PROCTER & GAMBLE	12	54.9	52	117	21.2	2022Q1	67	125	186	319
AMGEN	13	51.2	92	129	7.0	2021Q3	62	123	97	164
GENERAL ELECTRIC	14	50.3	135	314	0.0	2021Q3	0	38	94	197
QUALCOMM	15	49.4	119	178	5.8	2021Q4	51	102	116	241
DISNEY	16	47.8	61	85	0.0	2021Q4	0	-183	231	341
MERCK	17	45.8	81	172	2.1	2021Q3	13	81	144	265
MCDONALD'S	18	45.8	87	145	9.5	2021Q3	9	71	159	149
BOEING	19	43.4	87	137	0.0	2021Q3	0	-10	292	708
GILEAD SCIENCES	20	39.6	56	75	2.1	2021Q3	35	138	93	122

Notes: BB=stock buybacks; DV=cash dividends; NI=net income; ADTV=average daily trading volume limit to secure the safe harbor against stock-price manipulation charges under SEC Rule 10b-18.

Sources: Company 10-K and 10-Q filings with the SEC; Yahoo Finance daily historical stock prices. The table includes the latest quarterly data available for each company as of December 31, 2021.

Table 4 also shows the buybacks done by these 20 companies since the beginning of fiscal 2020, covering the period of the Covid-19 pandemic to the date of each company's latest financial report through December 2021. Apple, Oracle, Microsoft, Walmart, Intel, Home Depot, Procter & Gamble, Qualcomm, and Amgen spent 42 percent or more of net income on buybacks during this period. These nine companies benefited from very strong demand for their products and high profits during the pandemic.

The last two columns of the table show the generous ADTV "limits" for the 20 largest repurchasers among industrial companies, 2010-2019, at two points in time, one in advance of the pandemic and one in the midst of it. Except for McDonald's, the ADTV amounts had all risen, in many cases substantially, by June 2021 compared with October 2019, reflecting combinations of higher stock prices and higher trading volumes. Notwithstanding a sharp downturn in March 2020, when the World Health Organization declared the spread of SARS-CoV-2 a pandemic, the U.S. stock markets boomed. Of the companies that have done minimal or no buybacks since the onset of the pandemic, Exxon Mobil, IBM, General Electric, Merck, McDonald's, and Boeing had been in downsize-and-distribute mode as the pandemic began, and the financial condition of all these companies deteriorated further during part or all of the pandemic.

Three companies—Disney, Pfizer, and Intel—explicitly abandoned buybacks before or during the pandemic in order to invest in their companies. Disney, which came into the pandemic in

dominate-and-distribute mode, had already decided to cancel its stock repurchase program in August 2018 in anticipation of the heavy debt load that it would take on when it acquired 21st Century Fox.⁵⁵ The company did no buybacks in the fourth quarter of 2018 (ended September 29). The acquisition was completed in March 2019, and Disney's revenues rose substantially in the last half of that fiscal year, while its profits declined. Disney's buyback program remained in suspension in fiscal 2019 and the first quarter of 2020 (ended December 28, 2019), prior to any premonition of a viral pandemic and the damage that it would do to companies in the travel, leisure, and entertainment industries. With \$2.9 billion in losses in 2020, the company almost halved its dividend for that fiscal year and in 2021 and the first quarter of 2022 paid no dividends at all.

A highly financialized corporation from the late 1980s, Pfizer in early 2019 committed to doing \$8.9 billion in buybacks, to be completed by August 1 of that year.⁵⁶ Thereafter, the company ceased doing buybacks as it turned its strategic attention to conserving a portion of its profits to finance investment in its drug pipeline. Previously, Pfizer's strategy had been to acquire other companies with lucrative drugs on the market that had years of patent life left and to extract the profits to fund its distributions to shareholders. By 2019, however, with Big Pharma acquisition targets disappearing and the patents on a number of Pfizer's major drugs expiring, its board recognized that Pfizer itself could be acquired by another Big Pharma company unless it could develop high-revenue ("blockbuster") drugs internally.

Since August 2019, for the sake of internal drug development, Pfizer has done no buybacks. Indeed, in a rare move among U.S. corporations, in January 2020 Pfizer publicly announced its commitment to forego buybacks that year, and it did so again in January 2021. The company did, however, increase its dividend in 2019, 2020, and 2021. The implementation of this change in Pfizer's investment strategy followed the end of Ian Read's tenure as Pfizer CEO as of January 1, 2019, in favor of current CEO Albert Bourla. As CEO from 2011, Read had engaged in downsize-and-distribute.⁵⁷ In an earnings call with stock-market analysts in January 2020, Bourla made an extraordinary admission of the company's financialized past, declaring that Pfizer had stopped doing buybacks so that the company could invest in innovation:

The reason why in our capital allocation, we are allocating right now money [is] to increase the dividend and also to invest in our business...all the CapEx to modernize our facilities. The reason why we don't do right now share repurchases, it is because we want

⁵⁵ Emily Bary, "Disney buybacks may be in pause until 2023, Citi says," *MarketWatch*, April 21, 2020, <https://www.marketwatch.com/story/disney-buybacks-may-be-on-pause-until-2023-citi-says-2020-04-21>

⁵⁶ Pfizer's broker executed \$2.1 billion in open-market repurchases in the first quarter of 2019 (ended March 31) but none thereafter. In addition, on February 7, 2019, Pfizer entered into a \$6.8 billion "accelerated share repurchase" (ASR) agreement with Goldman Sachs. An ASR (which Pfizer had also done in February 2017 and March 2018) is a device for stock-price manipulation that enables a company to reduce its shares outstanding by the full number of shares in the agreement on the date on which it signs the ASR contract. This arrangement gives an immediate, i.e., "accelerated," boost to the company's earnings-per-share (EPS), without the company transgressing the ADTV limit under Rule 10b-18. The bank (in this case Goldman Sachs) borrows the shares specified in the ASR agreement from asset funds that are not seeking to sell the shares. Then, during the life of the ASR agreement, the bank purchases the company's shares on the stock market in smaller amounts at its discretion at various points in time and returns the borrowed shares to the asset funds. In the case of Pfizer's 2019 ASR, Goldman Sachs completed it on August 1, 2019.

⁵⁷ William Lazonick, Öner Tulum, Matt Hopkins, Mustafa Erdem Sakinç, and Ken Jacobson, "Financialization of the U.S. Pharmaceutical Industry," Institute for New Economic Thinking, December 2, 2019, <https://www.ineteconomics.org/perspectives/blog/financialization-us-pharma-industry>.

to make sure that we maintain very strong firepower to invest in the business. The past was a very different Pfizer. The past of the last decade had to deal with declining of revenues, constant declining of revenues. And we had to do what we had to do even if that was financial engineering, purchasing back ourselves. We couldn't invest them and create higher value. Now it's a very different situation. We are a very different company.⁵⁸

Bourla did not explain why the “old” Pfizer—which, less than 12 months before, had done \$8.9 billion in buybacks—“had to do what we had to do even if that was financial engineering, purchasing back ourselves.” But his rambling statement is a very rare recognition by a CEO of a major U.S. corporation that stock buybacks are the enemy of investment in innovation.

As the case of Pfizer clearly illustrates, even within business corporations that have become the leading repurchasers of their own stock, there is an ongoing tension between innovation and financialization, with the outcomes determined by specific sets of circumstances.⁵⁹ Intel, No. 9 in buybacks in Table 4 above, offers another example of a shift in corporate strategy from financialization to innovation in an advanced-technology industry, with cessation of buybacks as an important part of that strategy.

Once the world leader in chip fabrication, a financialized Intel found itself falling behind in the face of innovative global competition. Under new leadership, however, Intel is now seeking to invest in advanced nanometer fabrication facilities with the goal of catching up with industry frontrunners TSMC and Samsung Electronics.⁶⁰ Intel ceased doing stock buybacks from the second quarter of 2021 after replacing CEO Robert Swan, a finance expert, with Pat Gelsinger, a technology expert.⁶¹ In a *60 Minutes* interview, Gelsinger said that a condition of his taking the top Intel job was assurances from the company’s board that Intel would “not be anywhere near as focused on buybacks going forward as we have in the past.”⁶²

In a subsequent interview with *CNET* in November 2021, Gelsinger was much more expansive and emphatic.⁶³ He recounted how, before taking the CEO job, he had written a strategy paper for Intel’s board, for which he got their unanimous agreement. “I was concerned,” Gelsinger said in the interview, “about how we get the process roadmap back in shape.” He continued:

We underinvested in capital. I went to the board and said: “We’re done with buybacks. We are investing in factories.” And that is going to be the use of our cash as we go forward. And they aggressively supported that perspective; that we needed to just start investing, and those investments would start creating a cycle of momentum that would get our factory teams executing better.

⁵⁸ Pfizer Inc., “Event Brief of Q4 2019 Pfizer Inc Earnings Call – Final,” *CQ FD Disclosure*, January 28, 2020.

⁵⁹ See also Öner Tulum, Antonio Andreoni, and William Lazonick, *From Financialization to Innovation in UK Big Pharma: AstraZeneca and GlaxoSmithKline*, Cambridge Elements in Reinventing Capitalism, forthcoming 2022.

⁶⁰ William Lazonick and Matt Hopkins, “How Intel Financialized and Lost Leadership in Semiconductor Fabrication,” Institute for New Economic Thinking, July 7, 2021, <https://www.ineteconomics.org/perspectives/blog/how-intel-financialized-and-lost-leadership-in-semiconductor-fabrication>.

⁶¹ Lazonick and Hopkins, “Why the CHIPS Are Down.”

⁶² Lesley Stahl, “Chip shortage highlights U.S. dependence on fragile supply chain,” *60 Minutes*, May 2, 2021, <https://www.cbsnews.com/news/semiconductor-chip-shortage-60-minutes-2021-05-02/>.

⁶³ CNET, “Intel CEO Pat Gelsinger! (CNET’s full interview),” *CNET Highlights*, November 19, 2021, <https://www.youtube.com/watch?v=y-GWcsK6Ag&t=5s>

A key point of this overview of the shareholder payouts of the largest repurchasers is that individual companies make decisions concerning their level of buyback activity, and hence an analysis of the relation between stock buybacks and corporate performance must examine particular corporate trajectories, including changes in strategic control. The theory of innovative enterprise provides an analytical framework for conducting this firm-level research, while recognizing the importance of the institutional and industrial contexts within which the particular firm operates.

By the same token, analyses done at the industrial-sector level can be misleading because of, at times, large variation in distributions to shareholders among companies within the same sector. In semiconductors, for example, while Intel has been paying substantial dividends and has been among the largest repurchasers in the United States for the last two decades, its rival Advanced Micro Devices (AMD) has never paid a dividend in its 53-year history, and prior to 2020 the only open-market repurchases that it had done amounted to \$77 million in 2001, after its board authorized a \$300-million repurchase program. In 2020, AMD did \$78 billion in buybacks to cover employee withholding taxes on vesting of employee equity grants. On May 19, 2021, however, with its profits during the pandemic at about seven times its profits in each of 2018 and 2019 (which were good years for the company), AMD announced a \$4-billion repurchase program.⁶⁴ Then, for the sole purpose of giving a boost to its stock price, AMD did \$256 million in buybacks under its new program in the second quarter of 2021, another \$748 million in the third quarter, and \$758 million in the fourth quarter.

While stock prices can increase because of innovation and speculation, increasing numbers of companies, within and across industries, compete with one another in using stock buybacks to give manipulative boosts to their stock prices.⁶⁵ And, in the history of predatory value extraction, no company has set the manipulation bar as high as Apple, No. 1 in Table 4, whose buybacks over the past decade have been triple those of Oracle as No. 2 and Microsoft as No. 3. Note in Table 4, the extraordinarily high ADTV “limit” of Apple: \$1.5 billion per trading day in October 2019 and \$2.5 billion per day in June 2021. For March 1, 2022, it was \$3.5 billion. From October 2012 through December 2021, Apple threw away \$484 billion—92 percent of its enormous net income—on open-market repurchases, the sole purpose of which was to give boosts to the company’s stock price. In addition, Apple funneled \$118 billion in dividends to shareholders, sucking up another 23 percent of net income.

Apple calls these distributions to shareholders its “Capital Return Program.”⁶⁶ But how can Apple “return” cash to those who have never given the company anything? The only money that Apple raised from the public stock market in its 46-year history was the \$97 million realized from its

⁶⁴ Advanced Micro Devices, “AMD announces \$4 billion share repurchase program,” AMD press release, May 19, 2021, https://d1io3yog0oux5.cloudfront.net/_a1b35b0c2d1b56ad4b028627b0699c55/amd/news/2021-05-19_AMD_Announces_4_Billion_Share_Repurchase_1001.pdf.

⁶⁵ William Lazonick, “The Functions of the Stock Market and the Fallacies of Shareholder Value,” in Ciaran Driver and Grahame Thompson, eds., *What Next for Corporate Governance?* Oxford University Press, 2018: 117-151.

⁶⁶ William Lazonick, “Apple’s ‘Capital Return’ Program: Where Are the Patient Capitalist?” Institute for New Economic Thinking, November 13, 2018, <https://www.ineteconomics.org/perspectives/blog/apples-capital-return-program-where-are-the-patient-capitalists>.

initial public offering in 1980.⁶⁷ When, in the summer of 2013, corporate predator Carl Icahn purchased \$3.6 billion worth of Apple shares on NASDAQ and then, in the winter of 2016, sold that stake on NASDAQ for a \$2-billion gain, shares outstanding on the stock market simply passed from one stock trader to another. Not one cent of the \$3.6 billion that Icahn spent on acquiring these outstanding shares went to Apple. It would be ludicrous, therefore, to call Icahn an “investor” in Apple as a value-creating company. To the contrary, apparently succumbing to Icahn’s wealth, visibility, hype, and influence, Apple CEO Tim Cook and his board of directors helped the hedge-fund activist reap those financial gains by doing \$45.0 billion in buybacks in its fiscal 2014 (ended September 27) and \$35.3 billion in fiscal 2015—the two largest annual expenditures on buybacks ever executed by any company at that time.⁶⁸

Then, in the winter of 2016, as Icahn was dumping his Apple shares, Warren Buffett, using Berkshire Hathaway money, started buying Apple shares on NASDAQ until by September 2018 he had shelled out \$36.3 billion, giving him 5.1 percent of Apple’s shares outstanding. In May 2018, Buffett enthused in an interview: “I’m delighted to see [Apple] repurchasing shares. I love the idea of having our 5 percent, or whatever it is, maybe grow to 6 or 7 percent without our laying out a dime.”⁶⁹ After having repurchased \$32.9 billion in 2017, Apple granted the Oracle of Omaha his wish,⁷⁰ as the company’s buybacks were \$72.7 billion in 2018, \$66.9 billion in 2019, \$72.4 billion in 2020, and \$86.0 billion in 2021. Apple maintained the pace with \$20.4 billion in buybacks in the first quarter of 2022 (ended December 25, 2021).

By January 2022, Buffett’s Apple shares were valued at \$160 billion, even after he had sold 12 percent of his original stake for \$13 billion and had raked in another \$3 billion in dividends.⁷¹ He now held almost 5.6 percent of Apple’s stock outstanding, a figure that would have been 6.3 percent if Buffett had not sold some of his shares. While Buffett was remarkably candid in saying that he could increase his percentage held in Apple “without our laying out a dime,” he might have added “and without one cent of the \$36.3 billion that I paid to buy Apple’s shares on the market flowing into the company to invest in its productive capabilities or for any other purpose.”

With the help of \$374 billion in Apple buybacks since the winter of 2016, when Buffett began accumulating Apple stock, Berkshire Hathaway has profited immensely from the greatest treasury robbery in U.S. corporate history. The looting has, as far as we know, been perfectly legal because of SEC Rule 10b-18, adopted without public comment on November 17, 1982—the real birth date, in historical retrospect, of the pernicious and flawed ideology that, for the

⁶⁷ William Lazonick, “Numbers Show Apple Shareholders Have Already Gotten Plenty,” *Harvard Business Review*, October 16, 2014, <https://hbr.org/2014/10/numbers-show-apple-shareholders-have-already-gotten-plenty>.

⁶⁸ William Lazonick, Matt Hopkins, and Ken Jacobson, “What We Learn about Inequality from Carl Icahn’s \$2 Billion ‘No Brainer,’” Institute for New Economic Thinking, June 6, 2016, <https://www.ineteconomics.org/perspectives/blog/what-we-learn-about-inequality-from-carl-icahns-2-billion-apple-no-brainer>.

⁶⁹ Trevor Hunnicutt and Jonathan Stempel, “Warren Buffett is now Apple’s biggest shareholder—and he wants to own more,” *Financial Post*, May 17, 2018, <https://financialpost.com/investing/rpt-wrapup-3-buffett-craves-more-apple-shares-endorses-its-buybacks>.

⁷⁰ James Chen, “Who is the Oracle of Omaha?” *Investopedia*, May 5, 202, <https://www.investopedia.com/terms/o/oracleofomaha.asp>.

⁷¹ Anshui, “Warren Buffett’s stake in Apple makes over \$120 billion this week,” *CNBC TV*, January 5, 2022, <https://www.cnbc.com/business/a-job-that-satisfies-warren-buffetts-career-advice-to-students-12810362.htm>.

sake of economic efficiency, a business corporation should be run to “maximize shareholder value.”⁷²

This is not the first time that Apple’s top management has been guided by MSV as its corporate goal. In 1985, after founder Steve Jobs was ousted from the company, Apple CEO John Scully sought to drive up the company’s stock yield, and his own pay, with dividends and buybacks. By 1996 and 1997, Apple was taking huge losses and had to be bailed out by Microsoft in the form of a \$150-million purchase of preferred shares.⁷³ It was in this context that Jobs regained strategic control of Apple and reinstated a retain-and-reinvest regime—eschewing distributions to shareholders in order to reinvest profits in Apple’s productive capabilities—culminating in the launch of the iPhone in 2007.

Jobs passed away in October 2011. During his tenure as Apple CEO from September 1997 to August 2011, the company’s share price had risen by 7,000 percent. Innovation had amply rewarded loyal Apple shareholders, in part because Jobs invested in productive capabilities instead of doing buybacks to manipulate the company’s stock price. Tim Cook, Jobs’ successor as CEO, had previously been Apple’s chief supply-chain executive, with his most profound contribution to the company having been outsourcing its manufacturing to Foxconn in China. In the fourth quarter of fiscal 2012 (ended September 29), Apple paid dividends for the first time since 1996, and, in the first quarter of fiscal 2013, the current buybacks spree commenced.

In October 2014, as shareholder Icahn was pressuring CEO Cook to do \$100 million in buybacks, I wrote an article questioning Apple’s so-called “Capital Return Program,” which had been stepped up in April 2014 when the Apple board had authorized a total of \$90 billion in buybacks and \$40 billion in dividends by December 2015.⁷⁴ I also published an open letter to CEO Cook, suggesting ways in which, instead of doing buybacks, he could allocate Apple’s cash to innovative investments and support an equitable income distribution, including a) more compensation for tens of thousands of employees in Apple stores (not to mention hundreds of thousands of people working at companies in Apple’s global supply chain); b) more educational support to enhance the career opportunities for Apple employees, especially for those in dead-end jobs in Apple stores and call centers; c) collaboration with government agencies in social investments in knowledge and infrastructure; and d) collaboration with government agencies in social innovation to develop the technologies of the future to meet society’s needs.⁷⁵

Recently, Matt Hopkins and I published an INET working paper, “Why the CHIPS Are Down,”⁷⁶ in which we ask why the U.S. federal government should provide the U.S. semiconductor industry with \$52 billion in subsidies under the CHIPS for America Act,⁷⁷ when the tech companies,

⁷² Lazonick, “Is the Most Unproductive Firm the Foundation of the Most Efficient Economy?”

⁷³ William Lazonick, Mariana Mazzucato, and Öner Tulum, “Apple’s Changing Business Model: What Should the World’s Richest Company Do With All Those Profits?” *Accounting Forum*, 37, 4, 2013: 249-267.

⁷⁴ Lazonick, “Numbers Show Apple Shareholders Have Already Gotten Plenty.”

⁷⁵ William Lazonick, “What Apple Should Do With Its Massive Piles of Money,” *Harvard Business Review*, October 20, 2014, <https://hbr.org/2014/10/what-apple-should-do-with-its-massive-piles-of-money>.

⁷⁶ Lazonick and Hopkins, “Why the CHIPS Are Down.”

⁷⁷ Rob Portman, “Portman, Brown urge House & Senate leaders to swiftly pass revised legislation to invest in manufacturing and address global semiconductor shortage,” U.S. Sen. Rob Portman press release, January 7, 2022, <https://www.portman.senate.gov/newsroom/press-releases/portman-brown-urge-house-senate-leaders-swiftly-pass-revised-legislation>.

including Apple, that are lobbying for its passage⁷⁸ did about 17 times the requested subsidy in buybacks in 2011-2020. We also note that Apple's decisions to outsource the fabrication of its iPhone chips, first to Samsung Electronics and then, from 2015, exclusively to Taiwan Semiconductor Manufacturing Company (TSMC), has aided these two firms to become the world's leading chip foundries.

In our paper, Hopkins and I reference a 2010 article entitled "Apple should build a fab," addressed to Apple CEO Jobs, by a prominent electronics-industry journalist, Mark LaPedus.⁷⁹ At the time, Apple was reliant for chip fabrication on its emerging smartphone competitor, Samsung Electronics. LaPedus recognized that "in an age when real men go fabless, I concede it's an unconventional idea. You might think it's absurd. But an Apple A4 fab today could keep the iProduct franchise in hay—and Samsung at bay."

But in August 2011 Jobs passed the CEO torch to Cook, and Apple investing in its own fab was a road not taken. Now, under pressure from U.S. trade negotiators, Samsung and TSMC have begun building new state-of-the-art fabs in the United States, at a projected cost of \$17 billion and \$12 billion, respectively.⁸⁰ In comparison, the \$86 billion that Apple spent on buybacks in fiscal 2021 alone was three times the combined U.S. fab investments of Samsung and TSMC.

When, in May 2018, Cook was asked what he planned to do with the \$285 billion in cash which the company was repatriating from abroad as a result of tax breaks provided by the Republican Tax Cuts and Jobs Act of 2017, he replied:

We're going to create a new site, a new campus within the United States. We're going to hire 20,000 people. We're going to spend \$30 billion in capital expenditure over the next several years. Number one, we're investing, and investing a ton, in this country. We're also going to buy some of our stock, as we view our stock as a good value.⁸¹

The buybacks that Cook called "some of our stock" amounted to \$73 billion in 2018. And, we can ask: "Good value" for whom?

Apple's board authorizes the company's massive buybacks. The Apple director with the longest tenure is Arthur D. Levinson, who has been on the board since 2000 and its chair since late 2011. Levinson is a scientist who spent most of his career with the pioneering biopharmaceutical company Genentech, joining the firm in 1980 and serving as its CEO from 1995 to 2009 and as chairman of its board from 1999 to 2014.⁸² From 1990, Levinson and other Genentech employees

⁷⁸ Semiconductor Industry Association, "CHIPS for America Act & Fabs Act," <https://www.semiconductors.org/chips/> (accessed March 14, 2022); Semiconductors in America Coalition, "America's future depends on semiconductors," <https://chipsinamerica.org> (accessed March 14, 2022).

⁷⁹ Mark LaPedus, "Apple should build a fab," *EDN*, March 26, 2020, <https://www.edn.com/apple-should-build-a-fab/>.

⁸⁰ Anton Shilov, "Texas to get multiple new fabs as Samsung and TI to spend \$47 billion on new facilities," *AnandTech*, November 24, 2021, <https://www.anandtech.com/show/17086/texas-to-get-multiple-new-fabs-as-samsung-and-ti-to-spend-47-billion-on-new-facilities>; Katie Schoolov, "Inside TSMC, the Taiwanese chipmaking giant that's building a new plant in Phoenix," *CNBC*, October 16, 2021, <https://www.cnbc.com/2021/10/16/tsmc-taiwanese-chipmaker-ramping-production-to-end-chip-shortage.html>.

⁸¹ WRAL TechWire, "Apple CEO confirms commitment to build new campus, hire 20,000 new employees," *WRAL*, June 15, 2018, <https://wraltechwire.com/2018/06/15/apple-ceo-reaffirms-commitment-to-build-new-campus-hire-20000-new-employees/>.

⁸² Wikipedia, "Arthur D. Levinson," *Wikipedia*, https://en.wikipedia.org/wiki/Arthur_D._Levinson.

were protected from the pressures of predatory value extractors by the majority ownership of the company by F. Hoffmann-La Roche AG, a Swiss-based corporation better known simply as Roche, that is both the least financialized and, currently, the most innovative of the global Big Pharma companies.⁸³ Given his employment experience, Dr. Levinson could have advised Apple on how it might have invested a portion of the hundreds of billions of dollars that it has wasted on buybacks in supporting companies engaged in medicine innovation.

The Apple director with the second-longest tenure is Albert Arnold Gore Jr., who has been on its board since 2003. The former U.S. vice president and Democratic candidate for president in 2000 has been one of the world's leading activists for social awareness of the threat of global warming to human existence. In 2006 Gore released his documentary on climate change, *An Inconvenient Truth*, which went on to win an Oscar.⁸⁴ Mr. Gore could have advised Apple on how it might have invested even a portion of the hundreds of billions of dollars that it has wasted on buybacks to combat climate change.

Have Cook, Levinson, and Gore so thoroughly imbibed MSV ideology that they believe that Apple is actually “returning” corporate cash to people who just buy and sell shares outstanding on the stock market? Or are they so frightened by the possibility that they might lose their positions of strategic control at Apple to hedge-fund activists that they appease them with hundreds of billions of dollars in buybacks?

In either case, their actions as value-extracting insiders are provided academic cover by a species of professional economists known as “agency theorists,” whose rationale for distributing profits to shareholders in the form of not only dividends but also buybacks is that shareholders, and shareholders alone, make risky investments in the business firm, without a guaranteed return, and hence only shareholders have a claim on profits if and when they occur.⁸⁵ The theory assumes that other stakeholders in the firm, including workers, receive guaranteed prices (e.g., wages) for their productive contributions. Agency theory, however, overstates the risks borne by shareholders in making corporate investments, while ignoring risky investments in productive resources by not only workers but also taxpayers that can enable business firms to generate revenues and profits.

The fact is that public shareholders do not, as a rule, invest directly in the firm. Rather, once a firm is publicly listed, households or asset managers become shareholders by purchasing shares outstanding on the stock market. In placing their funds in shares listed on a highly liquid stock market such as NYSE or NASDAQ, public shareholders take little risk; they enjoy limited liability if they hold the shares and, given the liquidity of the stock market, at any instant and at a very low cost they can sell the shares at the going market price.

⁸³ Tulum and Lazonick, “Financialized Corporations in a National Innovation System: The US Pharmaceutical Industry.”

⁸⁴ Steve Gorman, “Gore’s ‘Inconvenient Truth’ wins documentary Oscar,” *Reuters*, February 25, 2007, <https://www.reuters.com/article/us-oscars-gore1/gores-inconvenient-truth-wins-documentary-oscar-idUSN2522150720070226>.

⁸⁵ William Lazonick, “Innovative Enterprise Solves the Agency Problem: The Theory of the Firm, Financial Flows, and Economic Performance, Institute for New Economic Thinking Working Paper No. 62, August 28, 2017, <https://www.ineteconomics.org/research/research-papers/innovative-enterprise-solves-the-agency-problem>; Lazonick, “Maximizing Shareholder Value as an Ideology of Predatory Value Extraction.”

In other words, public shareholders are value extractors, not value creators. The generation of innovative products, as described above, requires value-creating investment in productive capabilities, which are inherently illiquid, and hence the investment is risky. As we have seen, investments in innovation are uncertain, collective, and cumulative. An innovative enterprise requires strategic control to confront uncertainty, organizational integration to engage in collective learning, and financial commitment to sustain cumulative learning. When, as in the case of a start-up, financiers make equity investments in the absence of a liquid market for the company's shares, these early investors in the firm's value-creating capabilities face the risk that the firm will not be able to generate a competitive product. Even then, however, their risk is mitigated by the existence of a highly liquid stock market on which the firm can do an initial public offering (IPO), permitting these financial investors to reap financial returns, often before the firm has generated a commercial product.⁸⁶

To make such a speculative and liquid market available to private-equity investors, NASDAQ was launched in 1971 by electronically linking the previously fragmented, and hence relatively illiquid, over-the-counter markets. NASDAQ became an inducement to direct investment in start-ups precisely because it offered the prospect of a quick IPO taking place within just a few years after a firm was founded. For that reason, venture capitalists can use a quotation on NASDAQ as an *exit strategy*. In effect, owing to an IPO, they can exit an illiquid, high-risk direct investment by turning it into a liquid, low-risk portfolio investment. After an IPO, if the former direct investors decide to hold onto their shares, they are in the same portfolio-investor position as any other public shareholder: they can use the stock market to buy and sell shares at low transaction cost whenever they so choose.

As private shareholders, therefore, venture capitalists bear the risk of making direct investments in productive resources, but from the 1970s institutions evolved in the United States that could make that risk ephemeral by enabling them to transform their illiquid private equity holdings into liquid public shareholdings. In contrast, households as taxpayers, through government agencies, and as workers, through the business firms that employ them, also bear risk in making investments in productive resources, but without the availability of financial markets for monetizing the productive assets in which they have invested. From this perspective, households as both taxpayers and workers invest in innovation and have valid economic claims on the distribution of profits, if and when profits occur.

Through government investments in human capabilities and physical infrastructure, taxpayers regularly provide productive resources to companies without a guaranteed return. As an important example, but only one of many, the 2021 budget of the U.S. National Institutes of Health (NIH) was \$43 billion, part of a total NIH investment in life-sciences research spanning 1938-2021 that adds up to about \$1.3 trillion in 2021 dollars.⁸⁷ The funding request for 2022 is \$52 billion.⁸⁸

⁸⁶ See William Lazonick and Öner Tulum, "US Biopharmaceutical Finance and the Sustainability of the Biotech Business Model," *Research Policy*, 40, 9, 2011: 1170-118

⁸⁷ National Institutes of Health, "Budget", National Institutes of Health, <https://www.nih.gov/about-nih/what-we-do/budget> (accessed March 29, 2022). See also William Lazonick, Matt Hopkins, Ken Jacobson, Mustafa Erdem Sakiç, and Öner Tulum, "U.S. Pharma's Financialized Business Model," Institute for New Economic Thinking, Working Paper No. 60, July 13, 2017, revised September 8, 2017, <https://www.ineteconomics.org/research/research-papers/us-pharmas-financialized-business-model>.

⁸⁸ National Institutes of Health, Office of the Budget, <https://officeofbudget.od.nih.gov/> (accessed March 29, 2022).

Businesses that make use of NIH-sponsored research benefit from the public knowledge that it generates. As risk-bearers, taxpayers who fund investments in such research or in physical infrastructure such as roads, have a claim on resulting corporate profits, if and when they are generated. Through the tax system, governments, representing households as taxpayers, seek to extract this return from corporations that make profitable use of government spending.

No matter what corporate tax rate prevails, however, households as taxpayers face the uncertainty that changes in technological, market, and/or competitive conditions may prevent enterprises from generating profits and the related business tax revenues that serve as a return on the taxpayers' investments in infrastructure and capabilities. Moreover, tax rates are politically determined; households as taxpayers face the political uncertainty that predatory value extractors—financial interests who “take” far more than they “make”⁸⁹—may convince government policymakers that they will not be able to make value-creating investments unless they are given tax cuts or financial subsidies that will permit adequate profits. Households as taxpayers face the risk that politicians may be put in power who accede to these demands for predatory value extraction.

Through their skills and efforts, workers regularly make productive contributions to the companies for which they work that are beyond the levels required to lay claim to their current pay. However, they do so without guaranteed returns.⁹⁰ Any employer who is seeking to generate a higher-quality, lower-cost product knows the profound difference in the productivity levels of those employees who just punch the clock to get their daily pay and those who are committed to supporting the company's goals of generating products that can compete in terms of quality and cost. An innovative company wants workers who apply their skills and efforts to organizational learning so that they can make enduring productive contributions—including those that will enable the development of the firm's next generation of high-quality, low-cost products.

For their part, in making these productive contributions, workers expect that they will be able to build their careers within the firm, putting themselves in positions to reap future benefits at work and in retirement. Yet these potential careers and returns are not guaranteed. In fact, under the downsize-and-distribute resource-allocation regime that MSV ideology legitimizes, these careers and returns are generally undermined.

Workers, therefore, supply their skills and efforts to the process of generating innovative products that, if successful, could create value, but they take the risk that their endeavors could be in vain. Far from reaping expected gains in the form of higher remuneration, more job security, and better working conditions, employees could face cuts in pay and benefits, or even find themselves laid off if the firm's innovation investment strategy fails. Even if the innovation process is successful, workers face the possibility that the institutional environment in which MSV prevails will empower corporate executives to cut some workers' wages and lay off other workers—all so that the value they helped to create can be redirected to shareholders, including the senior executives themselves with their copious stock-based pay as well as hedge-fund managers whose stock-trading strategies count buybacks as money in the bank.⁹¹

⁸⁹ See Rana Foroohar, *Makers and Takers: The Rise of Finance and the Fall of American Business*, Crown Business, 2016; Lazonick and Shin, *Predatory Value Extraction*.

⁹⁰ Lazonick, *Competitive Advantage on the Shop Floor*; Lazonick, “The Theory of Innovative Enterprise.”

⁹¹ Lazonick and Shin, *Predatory Value Extraction*.

As risk-bearers, therefore, taxpayers whose money supports business firms and workers whose efforts generate productivity improvements have claims on corporate profits, if and when they occur. MSV ignores the risk-reward relation for households as both taxpayers and workers in the operation and performance of business corporations.⁹² MSV implies that public shareholders derive their gains by extracting value as a reward for taking the risk of contributing to processes that create value. Thus, as we have seen, when corporations pay dividends or do buybacks, MSV mischaracterizes these distributions as “returning” capital to shareholders. The irony of MSV is that public shareholders—whom agency theory deems to be the firm’s sole risk-bearers—typically never invest in the value-creating capabilities of the company at all. Rather, they purchase outstanding corporate equities with the expectation that dividend income will be forthcoming while they hold the shares and that the stock price will have risen to yield a financial gain if and when they decide to sell the shares.

Proponents of MSV may accept that a company needs to retain some cash flow to maintain the functioning of its physical capital, but they generally view labor as an interchangeable commodity that can be hired and fired as needed on the labor market. In addition, they typically ignore the contributions that households as taxpayers make to business value creation. Rooted in the neoclassical theory of the market economy, MSV assumes that markets, not organizations, allocate resources to their most efficient uses. But lacking a theory of innovative enterprise, agency theory cannot explain how the “most efficient uses” are created and transformed over time.⁹³

It is the triad of government agencies, household units, and business firms that invests in productive capabilities that underpin economic growth. These investments determine both the “most efficient” uses at a given point in time and the extent to which these “most efficient” uses become more productive over time.⁹⁴ Product markets, labor markets, and financial markets are outcomes, not causes, of this growth.⁹⁵

Once we debunk the myth that only shareholders take risks, the massive distributions that have been made to shareholders since the mid-1980s in the form of buybacks raise a significant question. How much of the cash flow that both shareholders and managers have deemed to be “free” has been a misappropriation of funds that should have gone to households as taxpayers and households as workers as returns on the money and effort their members invested in the productive capabilities that generated corporate revenues and profits?⁹⁶

As described above, for about three decades after World War II, the distribution of income became somewhat more equal, and a middle class of both high-school-educated blue-collar workers and college-educated white-collar workers thrived. In contrast, over the past four decades, the United

⁹² William Lazonick, “The Financialization of the U.S. Corporation: What Has Been Lost, and How It Can Be Regained,” *Seattle University Law Review*, 36, 2, 2013: 857-909; William Lazonick and Mariana Mazzucato, “The Risk-Reward Nexus in the Innovation-Inequality Relationship,” *Industrial and Corporate Change*, 22, 4, 2013: 1093–1128; Lazonick, Maximizing Shareholder Value as an Ideology of Predatory Value Extraction.”

⁹³ Lazonick, “Is the Most Unproductive Firm the Foundation of the Most Efficient Economy?”

⁹⁴ William Lazonick, “Innovative Enterprise or Sweatshop Economics? In Search of Foundations of Economic Analysis,” *Challenge* 59, 2, 2016: 65–114 and references therein.

⁹⁵ Lazonick, “The Theory of the Market Economy and the Social Foundations of Innovative Enterprise.”; Lazonick, “Innovative Enterprise or Sweatshop Economics?”.

⁹⁶ Lazonick, “Innovative Enterprise Solves the Agency Problem.”

States has experienced extreme concentration of income among the richest households and the erosion of middle-class employment opportunities for the vast majority of the population.⁹⁷ These two economic problems have been integrally related as business corporations have shifted from retain-and-reinvest to downsize-and-distribute, legitimized by the ideology that companies should be governed to maximize shareholder value.⁹⁸

5. Reforming Corporate Governance for Sustainable Prosperity

With the election of Joseph R. Biden Jr. as president of the United States, Americans got a leader whose stated objective as a candidate was to put the nation back on a path to stable and equitable growth.⁹⁹ Quite apart from the devastation wrought by the Covid-19 pandemic, that is a very tall order after four decades of income inequality and employment instability. The Biden administration's Build Back Better agenda includes investment in productive capabilities by two of the three types of organizations—government agencies and household units—that constitute the investment triad. On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act,¹⁰⁰ through which government agencies can invest in productive capabilities. Stalled in Congress is the American Families Act,¹⁰¹ announced as the American Families Plan in April 2021,¹⁰² to support household units to invest in productive capabilities.

Missing from the Build Back Better agenda, however, are reforms to ensure that the third type of organization in the investment triad—the nation's business firms—focus on investment in productive capabilities that can generate stable and equitable economic growth. The very first step in a policy agenda designed to engage major U.S. business corporations in that investment effort would be to put a halt to the trillions of dollars that they are spending on stock buybacks, at the expense of rewarding the U.S. labor force for its prior value-creating efforts and investing in the next round of innovative products that can support sustainable prosperity over the next generation. In addition to enabling the United States to confront the scourge of socioeconomic inequality, the investment triad is of fundamental importance to putting in place the productive capabilities required both for a transition to green energy and for effective responses to pathogen epidemics that will prevent them from becoming pandemics.

The investment triad cannot develop the productive capabilities required for stable and equitable growth if enhanced investment only by government agencies and household units is part of the policy agenda. Without the full participation of major U.S. business corporations in the Build Back Better agenda, the effort at recreating a diverse, robust, upwardly mobile American middle class cannot succeed.

As Vice President, Joe Biden understood that stock buybacks were undermining the productive capability of the U.S. economy.¹⁰³ In a *Wall Street Journal* op-ed in September 2016, Biden

⁹⁷ Ibid.

⁹⁸ Lazonick and O'Sullivan, "Maximizing Shareholder Value"; Lazonick, "Stock Buybacks."

⁹⁹ Biden Presidential Campaign, "Build Back Better: Joe Biden's Jobs and Economic Recovery Plan for Working Americans," Biden Harris website, <https://joebiden.com/build-back-better/> (accessed March 14, 2022).

¹⁰⁰ U.S. House of Representatives, "H.R. 3684 – Infrastructure Investment and Jobs Act."

¹⁰¹ U.S. House of Representatives, "H.R. 928 – American Family Act of 2021."

¹⁰² Alana Wise, "White House proposes \$1.8 trillion plan for children and families," *NPR*, April 28, 2021,

<https://www.npr.org/2021/04/28/991357190/white-house-proposes-massive-spending-on-children-and-families>.

¹⁰³ Lazonick, et al., "'Build Back Better' Needs an Agenda for Upward Mobility."

observed: “Ever since the Securities and Exchange Commission changed the buyback rules in 1982, there has been a proliferation in share repurchases. Today buybacks are the norm.” The result has been, as he put it, “a significant decline in business investment.” Biden concluded his article by making a forceful statement of the need for regulation of buybacks as an integral, and important, component of government economic policy:

The federal government can help foster private enterprise by providing worker training, building world-class infrastructure, and supporting research and innovation. But government should also take a look at regulations that promote share buybacks, tax laws that discourage long-term investment and corporate reporting standards that fail to account for long-run growth. The future of the economy depends on it.¹⁰⁴

In an interview with the *Las Vegas Sun* on January 11, 2020, Biden, as a candidate for the Democratic nomination for president, criticized buybacks because they shortchange R&D investment and workers’ wages. As a remedy, he said: “I’m going to reinstate (the policy) that changed under the Reagan administration, when the SEC suggested there’s not a limitation on buybacks.”¹⁰⁵ With the Covid-19 pandemic upon us, on March 20, 2020, candidate Biden tweeted:

I am calling on every CEO in America to publicly commit now to not buying back their company's stock over the course of the next year. As workers face the physical and economic consequences of the coronavirus, our corporate leaders cannot cede responsibility for their employees.¹⁰⁶

During the second quarter of 2020, buybacks by companies in the S&P 500 Index fell to about \$90 billion from over \$200 billion in the previous quarter. But by the second quarter of 2021, with President Biden in office, they bounced right back up to \$200 billion.¹⁰⁷ By the third quarter of 2021 buybacks had reached an all-time quarterly record of \$235 billion, surpassing the previous peak of \$220 billion in the fourth quarter of 2018,¹⁰⁸ when share repurchases had been fueled by the Republican tax cuts.¹⁰⁹ For all of 2021, at a record \$882 billion, S&P 500 buybacks easily outstripped the previous annual high of \$806 billion in 2018.¹¹⁰

Yet, in his first year in the White House, President Biden was virtually silent on stock buybacks.¹¹¹ In his first State of the Union Address, on March 1, 2022, there was absolutely no mention of

¹⁰⁴ Joe Biden, “How Short-Termism Saps the Economy,” *Wall Street Journal*, September 27, 2016, <https://www.wsj.com/articles/how-short-termism-saps-the-economy-1475018087>.

¹⁰⁵ Sun Staff, “Sun’s 2020 set-down with Joe Biden shines a light on how e will lead the country,” *Las Vegas Sun*, January 31, 2021, <https://lasvegassun.com/news/2021/jan/31/the-biden-interview-suns-2020-sit-down-with-candid/>.

¹⁰⁶ Joe Biden, @JoeBiden, March 20, 2020, <https://twitter.com/JoeBiden/status/1240998489498288129>.

¹⁰⁷ Edward Yardeni, Joe Abbott, and Mali Quintana, “Corporate Finance Briefing: S&P 500 Buybacks & Dividends,” Yardeni Research Inc., March 18, 2022, <https://www.yardeni.com/pub/buybackdiv.pdf>.

¹⁰⁸ S&P Global, “S&P 500 buybacks set a record high,” *PRNewswire*, December 21, 2021, <https://press.spglobal.com/2021-12-21-S-P-500-Buybacks-Set-A-Record-High>.

¹⁰⁹ Lazonick et al., “Why Stock Buybacks Are Dangerous for the Economy.”

¹¹⁰ Bob Pisani, “Buybacks are poised for a record year, but who do they help?” *CNBC*, December 30, 2021, <https://www.cnb.com/2021/12/30/buybacks-are-poised-for-a-record-year-but-who-do-they-help.html>.

¹¹¹ In White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth*, June 2021, citing Lazonick et al., “Why Stock Buybacks Are Dangerous for the Economy” on page 11, the Executive Summary states: “A focus on maximizing short-term capital returns has led to the private sector’s underinvestment in long-term resilience. For example, firms in the S&P 500 Index distributed 91 percent of net income to shareholders in either stock buybacks or dividends between 2009 and 2018. This has meant a declining share of corporate income going into

them.¹¹² It is only in the *Budget of the U.S. Government: Fiscal Year 2023*, released on March 28, 2022, that, as discussed below, the Biden administration has raised the issue of buybacks in relation to stock-based executive pay.¹¹³ But the *Budget* proposes no constraints on corporations executing buybacks. To repeat: If the leading U.S. industrial corporations devote all of their profits and more to distributions to shareholders, the Build Back Better agenda, even if enacted, cannot succeed.

The United States can start the transition from a value-extracting economy, characterized by extreme inequality, to a value-creating economy, characterized by stable and equitable growth, through a five-part corporate-governance reform agenda,¹¹⁴ with its intellectual rationale underpinned by the theory of innovative enterprise:

- Ban stock buybacks as open-market repurchases by rescinding SEC Rule 10b-18.
- Compensate senior executives for their contributions to value creation, and not for value extraction.
- Reconstitute corporate boards by including directors who are representatives of workers and taxpayers while excluding predatory value extractors.
- Reform the tax system so that it recognizes and supports the investment triad in enhancing productive capabilities.
- Deploy corporate profits and government taxes to launch and sustain collaborations between government agencies and business firms that support the “collective and cumulative” careers that can enable American workers and their families to contribute to and participate in an upwardly mobile society, arming tens of millions of household units with the productive capabilities to solve America’s existential climate, health, and security crises.

Here are brief summaries of what these policy proposals entail:

- ***Ban stock buybacks***

The stated mission of the SEC is to “protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation.”¹¹⁵ By adopting and implementing Rule 10b-18, the SEC has been failing in all three of these missions. Under Rule 10b-18, when the SEC permits massive manipulation of the stock market, it fails to protect “investors”—among which the SEC presumably includes households as savers. Households that allocate a portion of their savings to purchase the shares of publicly listed companies want those shares to yield an income stream from dividends (where available) while they are holding the shares, and they want to realize gains from stock-price increases if and when they decide to sell the shares. Only by generating innovative products can a company provide these stock yields on a sustainable basis. Payment of dividends

R&D, new facilities or resilient production processes.” But the report’s Recommendations make no mention of what to do about the buybacks problem. Yet, as a highly relevant current example, Lazonick and Hopkins, “Why the CHIPS Are Down,” documents, corporate financialization has been undermining U.S. semiconductor fabrication.

¹¹² White House, “Remarks by President Biden in State of the Union Address,” Briefing Room, March 2, 2022, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/03/02/remarks-by-president-biden-in-state-of-the-union-address/>. See Lazonick, “Where Did You Go, Vice President Joe?”, where, among other things, I suggest what President Biden could have said about stock buybacks at various points in his address.

¹¹³ White House, *Budget of the U.S. Government: Fiscal Year 2023*, Government Printing Office, 2022, p. 16

¹¹⁴ See Lazonick and Shin, *Predatory Value Extraction*, ch. 8.

¹¹⁵ U.S. Securities and Exchange Commission, “The Role of the SEC,” Investor.gov (U.S. Securities and Exchange Commission), <https://www.investor.gov/introduction-investing/basics/role-sec> (accessed November 21, 2019).

to shareholders should be determined after rewards, including wage increases, have been distributed out of profits to the real value creators and after the company's needs for reinvestment of profits to remain competitive have been met. If the firm invests in innovation and can generate higher-quality, lower-cost products, we can expect that its stock price will increase. There is no need to do stock buybacks to manipulate the company's stock price.

Stock buybacks done as open-market repurchases do not benefit households as savers, except by accident. Open-market repurchases carried out in accordance with Rule 10b-18 benefit stock market traders—including senior corporate executives, hedge-fund managers, and Wall Street bankers—who are in the business of timing the buying and selling of shares to reap gains from stock-price changes. These traders have access to real-time information on buyback activity that households do not possess.¹¹⁶ If the SEC wants to protect households that place some or all of their savings and retirement funds in outstanding corporate shares, it should rescind Rule 10b-18 and call for a ban on open-market repurchases by publicly listed corporations.¹¹⁷

When the SEC permits massive manipulation of the stock market under the aegis of Rule 10b-18, it fails in its second mission: to ensure “fair, orderly, and efficient” markets. The stock market is not fair when predatory value extractors are granted the right to manipulate stock prices for their own gain, often price gouging consumers, shortchanging suppliers, and laying off employees for the sake of increasing profits to be distributed to shareholders. The stock market is not orderly when stock prices are boosted by stock buybacks, often funded by debt as well as by profits that are increased by layoffs of workers and price-gouging of consumers.¹¹⁸ In a competitive process to keep up with the market in stock-price performance, companies escalate buybacks when stock prices are high, helping to set up the manipulated stock market for a precipitous fall. By enabling manipulation of stock prices and fomenting speculation in a surging stock market, stock buybacks contribute to disorderly markets.

Moreover, there is nothing efficient about a stock market that is manipulated by stock buybacks. For households as savers, the stock market cannot be an efficient way of enhancing the value of their savings when a small number of predatory value extractors benefit from rules of the game that give insiders most of the stock-market gains. If the SEC wants to use its regulatory power to make U.S. stock markets more fair, more orderly, and more efficient, it should rescind Rule 10b-18 and call for a ban on open-market repurchases by publicly listed corporations.

Far from facilitating capital formation, as the SEC claims they do, stock buybacks undermine investment in productive capabilities, including investments in human capabilities as well as capital expenditures. Earnings retained out of profits are the foundation of corporate finance for investment in productive capabilities, and stock buybacks, coming on top of ample dividends, have persistently depleted the retained earnings of U.S. business corporations. A significant portion of those distributions augments the war chests of hedge-fund activists, giving them even more power to engage in predatory value extraction.¹¹⁹

¹¹⁶ See, for example, letter from John Ramsay, Investors Exchange LLC, to Brent J. Fields, Securities Exchange Commission, March 27, 2018, <https://www.sec.gov/rules/petitions/2018/petn4-722.pdf>.

¹¹⁷ See Palladino and Lazonick, “Regulating Stock Buybacks.”

¹¹⁸ Lazonick, et al., “Why Stock Buybacks Are Dangerous for the Economy.”

¹¹⁹ For a detailed study, see Lazonick et al., “What We Learn about Inequality from Carl Icahn’s \$2 Billion ‘No Brainer’.”

For the SEC to be in a position to use its regulatory power for the purpose of encouraging capital formation—that is, investments in productive capabilities that, through innovation, can generate economic growth—the U.S. Congress should rescind Rule 10b-18 and call for a ban on open-market repurchases by publicly listed corporations. Indeed, U.S. Sen. Tammy Baldwin (D-WI) has proposed precisely this reform as part of the Reward Work Act, last introduced in the Senate by Baldwin with three co-sponsors in March 2019¹²⁰ and in the House by Reps. Jesús García (D-IL) and Ro Khanna (D-CA) in June 2019.¹²¹

- ***Redesign executive pay***

As we have seen, executive pay in the United States is made up of a number of different components, of which salary and bonus are *relatively* unimportant (but by no means unsubstantial) in comparison to its stock-based components, which take the form of stock options and stock awards (see Figure 2 above). From 1950 to 1976, stock options as a form of executive compensation were a tax dodge to enable senior corporate executives to pay the capital-gains tax rate rather than the ordinary rate (25 percent versus as high as 91 percent in the 1950s and 1960s) on a portion of their compensation.¹²²

In 1960, in an article in *Harvard Business Review*, “Are Stock Options Getting Out of Hand?,” the dean of Harvard Law School, Erwin Griswold, criticized the tax rules on stock options for favoring a special class of people who did not make investments that justified capital gains. He argued that option grants focused the minds of executives more on speculative price movements of the company’s stock than on the job of managing a large corporation.¹²³ Griswold’s intervention provoked a vigorous public debate, from which Sen. Albert Gore (D-TN) emerged as the foremost Congressional opponent of this tax dodge.¹²⁴ Subsequent revisions in the U.S. tax code culminated in the elimination, in the Tax Reform Act of 1976, of the capital-gains treatment for executive stock-option compensation.¹²⁵ In 1978, Graef Crystal—a compensation consultant who would later become a vocal critic of excessive executive pay—stated that qualified stock options, “once the most popular of all executive compensation devices,...have been given the last rites by Congress.”¹²⁶

In the 1980s, however, with the personal tax rate much reduced and with the help of compensation consultants—including Crystal, who, in a *mea culpa*, exposed the executive-pay scam in his 1991 book, *In Search of Excess*—stock options as a form of compensation proliferated, not only for

¹²⁰ Tammy Baldwin, “U.S. Senator Tammy Baldwin reintroduces legislation to rein in stock buybacks and give workers a voice on corporate boards,” Sen. Tammy Baldwin press release, March 27, 2019, <https://www.baldwin.senate.gov/newsroom/press-releases/reward-work-act-2019>.

¹²¹ Chuy García, “Representatives García and Khanna introduce legislation to boost jobs and wages,” Rep. Chuy Garcia press release, June 19, 2019, <https://chuygarcia.house.gov/media/press-releases/representatives-garc-khanna-introduce-legislation-boost-jobs-and-wages>.

¹²² Matt Hopkins and William Lazonick, “The Mismeasure of Mammon: Uses and Abuses of Executive Pay Data,” Institute for New Economic Thinking Working Paper No. 49, August 29, 2016, <https://www.ineteconomics.org/research/research-papers/the-mismeasure-of-mammon-uses-and-abuses-of-executive-pay-data>.

¹²³ Erwin N. Griswold, “Are Stock Options Getting Out of Hand?” *Harvard Business Review*, 39, 4, 1961: 52-58.

¹²⁴ “Gore bill would end stock option plans,” *Washington Post*, April 15, 1961; Albert Gore, “How to be rich without paying taxes,” *New York Times*, April 11, 1965.

¹²⁵ Hopkins and Lazonick, “The Mismeasure of Mammon,” pp. 11-12.

¹²⁶ Graef Crystal, *Executive Compensation: Money, Motivation, and Imagination*, American Management Association, 1978, p. 145; See Graef S. Crystal, *In Search of Excess: The Overcompensation of the American Executive*, Norton, 1991.

senior executives but also for a broad base of professional, technical, and administrative employees in the “New Economy” firms emanating from Silicon Valley.¹²⁷ In a socioeconomic process that I would call “contagious compensation,” the boards of Old Economy firms began lavishing stock-based compensation on senior executives, while these companies also began to use stock options to compete with New Economy companies for personnel, including scientists, engineers, and middle managers.¹²⁸

Agency theorists extolled the use of stock-based pay to incentivize senior executives to maximize shareholder value.¹²⁹ Indeed, the very existence of stock options and stock awards as components of executive pay is integral to corporate financialization. If a corporate CEO—occupying a position of strategic control that represents the pinnacle of a business career—does not have the ability and incentive to engage in innovation, no amount of stock-based compensation can induce that CEO to formulate, adopt, and implement an innovation strategy.

As stock-based executive compensation is designed in the United States, it incentivizes value extraction rather than value creation. Typically, a stock option will vest over four years, with one-quarter of the shares in the option vesting at the end of each year (although many other arrangements are possible, particularly for senior executives). Provided that executives stay with their companies, they have a vast window of anywhere from six years to nine years before the options expire, during which time they can choose the particular day or days on which to exercise the options. Anytime an executive thinks that the company’s stock price will be higher in, say, six months, then, provided the option is not expiring, he or she can wait to exercise the option in accordance with that expectation.

In the case of stock awards, which unlike options do not have an exercise price that the executive must pay to obtain the shares, executives receive shares specified in the award and realize the gains when the award vests. The least complicated stock awards simply vest after a stated period of time—for example, three years from the award date if the executive is still employed by the company. More complex stock awards vest when the company hits certain “performance” metrics such as stipulated stock-price increases or earnings-per-share targets. The attainment of these financial targets may also result in additional shares being added to the award. As in the case of stock options, executives can choose to sell the shares acquired by awards to lock in the realized gains. Alternatively, they can continue to hold the shares to collect dividends and possibly reap a future stock-price gain, but any such additional income after the vesting of stock awards does not constitute compensation.

The presence of a liquid stock market makes it quick and inexpensive for executives to sell the shares immediately when they exercise stock options or when they receive vested stock awards. Prior to 1991, however, under an SEC rule intended to prevent insiders from making short-swing

¹²⁷ Lazonick, *Sustainable Prosperity in the New Economy?*.

¹²⁸ William Lazonick, “Taking Stock: How Executive Pay Results in an Inequitable and Unstable Economy,” Franklin and Eleanor Roosevelt Institute White Paper, June 5, 2014, https://www.theairnet.org/v3/backbone/uploads/2014/08/Lazonick_Executive_Pay_White_Paper_Roosevelt_Institute.pdf; Susan Holmberg and Mark Schmitt, “The Overpaid CEO,” *Democracy*, Fall 2014, <http://democracyjournal.org/magazine/34/the-overpaid-ceo/>; Hopkins and Lazonick, “The Mismeasure of Mammon.”

¹²⁹ Michael C. Jensen and Kevin J. Murphy, “Performance Pay and Top Management Incentives” *Journal of Political Economy*, 98, 2, 1990: 225-264.

profits, senior executives were required to hold the shares obtained from exercising an option for six months after the exercise date before realizing the gains. In May 1991, however, the SEC changed the rule so that the six-month waiting period starts when the option is *granted*, not when it is exercised. Since it always takes at least a year from the grant date for an option to vest, this change permits the senior executive to sell the acquired shares immediately upon exercising the option, locking in the realized gains.

U.S.-style stock options, therefore, provide incentives for executives to take advantage of what they think may be short-term surges in the company's stock price. Since the timing of stock buybacks is controlled by these executives, repurchases are an ideal means for making these surges happen. Thus, by design, U.S.-style executive stock options incentivize value extraction, not value creation. Indeed, they are structured such that they encourage insider trading by senior executives, especially around the execution of stock buybacks.¹³⁰

Even with SEC Rule 10b5-1, adopted in 2000 to give corporate executives a safe harbor against insider-trading charges in stock sales by doing them according to a pre-announced plan, top executives can time their option exercises and stock sales to increase their pay.¹³¹ In any case, the SEC does not collect data on the dates on which stock buybacks are done, and in the more than three decades that Rule 10b-18 has provided a safe harbor against stock-market manipulation in doing large-scale repurchases, the SEC has not investigated any executives for trading on the material non-public information of the dates on which buybacks are carried out.¹³²

In the just-released 2023 *Budget*, President Biden takes aim at realized gains on executive pay as an incentive for senior management to do stock buybacks.

The President also supports legislation that would align executives' interests with the long-term interests of shareholders, workers, and the economy by requiring executives to hold on to company shares that they receive for several years after receiving them, and prohibiting them from selling shares in the years after a stock buyback. This would discourage corporations from using profits to repurchase stock and enrich executives, rather than investing in long-term growth and innovation.¹³³

¹³⁰ Robert L. Jackson, "Stock Buybacks and Corporate Cashouts." U.S. Securities and Exchange Commission, June 11, 2018, <https://www.sec.gov/news/speech/speech-jackson-061118>; Lenore Palladino, "Do Corporate Insiders Use Stock Buybacks for Personal Gain?" *International Review of Applied Economics*, 34, 2, 2020: 152–174, <https://www.tandfonline.com/doi/abs/10.1080/02692171.2019.1707787?journalCode=cira20>.

¹³¹ Allan Horwich, "The Origin, Application, Validity, and Potential Misuse of Rule 10b5-1," *The Business Lawyer*, 61, May 2007: 913-954; Alan B. Jagolinzer, "SEC Rule 10b5-1 and Insider's Strategic Trade," *Management Science*, 55, 2, 2009: 231-259; Jesse Eisinger, "Repeated good fortune in timing of CEO's stock sale," *New York Times*, February 19, 2014, <http://dealbook.nytimes.com/2014/02/19/repeated-good-fortune-in-timing-of-c-e-o-s-stock-sale/>.

¹³² See the letters by U.S. Sen. Tammy Baldwin to SEC Chair Mary Jo White of April 23, 2015, https://www.cii.org/files/Letter%20from%20Sen_%20Baldwin%20to%20SEC%20Chair%20White.pdf; and November 16, 2015, <https://www.baldwin.senate.gov/imo/media/doc/111615%20Letter%20to%20SEC.pdf>; and Chair White's responses of July 13, 2015, <https://www.documentcloud.org/documents/2272283-sec-response-to-baldwin-07132015>, and January 29, 2016 (copy in the possession of the author). See also David Dayen, "SEC admits it's not monitoring stock buybacks to prevent market manipulation," *The Intercept*, August 12, 2015, <https://theintercept.com/2015/08/13/sec-admits-monitoring-stock-buybacks-prevent-market-manipulation/>.

¹³³ White House, *Budget of the U.S. Government*, p. 16.

The implementation of the proposal would be a step forward, particularly because it recognizes that buybacks undermine investment in innovation. But it does not address the immense power of hedge-fund activists as value-extracting outsiders, discussed below in the agenda to reconstitute corporate boards, in demanding that corporate executives do buybacks as a condition of retaining their positions of strategic control. For example, I do not think that Apple did \$484 billion in buybacks from October 2012 to December 2021 because CEO Tim Cook wanted to inflate his pay. Apple spent a massive fortune on buybacks so that Carl Icahn and Warren Buffett, or potentially the likes of William Ackman, Daniel Loeb, Nelson Peltz, and Paul Singer, to name a few of the most prominent “value-extracting outsiders,” would not use the proxy-voting system to replace Cook and his board with top management that would do their bidding in distributing the company’s so-called “free cash flow” for the sake of MSV.

Nevertheless, if the Biden administration is intent on preventing corporate financialization from inflating executive pay, it should ask the SEC to institute the correct measurement of executives’ *realized gains* on their stock-based compensation. Since the 1990s, in collaboration with the Financial Accounting Standards Board, the SEC has mandated, in the Summary Compensation Table that each publicly listed company must include in its annual proxy statement (SEC Form DEF 14A), the use of estimated “fair value” (EFV) measures of executive compensation in the form of stock options and stock awards rather than the actual realized gains (ARG) that executives in fact “take home” and on which they pay personal taxes to the Internal Revenue Service.¹³⁴ EFV measures are based on deeply flawed economics, including Black-Scholes-Merton option-pricing models for stock options, that ignore the actual drivers of stock prices: innovation, speculation, and manipulation.¹³⁵

The estimates of the “fair value” of stock options and stock awards use grant-date prices, not the market prices of options when they are exercised and awards when they vest. Yet, it is in fact the excess of the market price when options are exercised and awards vest over the grant-date price that incentivizes senior executives to engage in activities, including the execution of buybacks, to inflate their own pay packages. ARG measures for options and awards are not a corporate secret; each company must report these data for its CEO, CFO, and other three highest-paid executives in its annual proxy statement. It is just that the SEC requires the use of EFV measures in the Summary Compensation Table. As a result, not only the media but also many progressive legislators, unions, and civil society organizations that are critical of executive pay disseminate the fictitious data on executive compensation that the Table contains.¹³⁶

Indeed, as Hopkins and I explain in a public comment to the SEC on the Pay Ratio Disclosure Rule,¹³⁷ under which (as required by the Dodd-Frank Act of 2010) each company reports the ratio of pay of the CEO to that of its median employee, the calculation of hierarchical pay disparity within the corporation will be erroneous because of the use of EFV measures for CEO pay. Especially when a company’s stock price is rising, actual CEO pay using ARG measures outstrips

¹³⁴ Hopkins and Lazonick, “The Mismeasure of Mammon”; William Lazonick and Matt Hopkins, “If the SEC Measured CEO Pay Packages Properly, They Would Look Even More Outrageous,” *Harvard Business Review*, December 22, 2016, <https://hbr.org/2016/12/if-the-sec-measured-ceo-pay-packages-properly-they-would-look-even-more-outrageous>.

¹³⁵ Lazonick, “The Functions of the Stock Market and the Fallacies of Shareholder Value.”

¹³⁶ Hopkins and Lazonick, “The Mismeasure of Mammon.”

¹³⁷ William Lazonick and Matt Hopkins, “Comment on the Pay Ratio Disclosure Rule,” public comment to the U.S. Securities and Exchange Commission, March 21, 2017, <https://www.sec.gov/comments/pay-ratio-statement/cil3-1658300-148764.pdf>.

estimated CEO pay using EFV measures. For example, in 2020, as shown in Figure 2 above, using ARG measures of stock-based pay, the average total compensation for the 500 highest-paid U.S. executives was \$40.9 million, of which realized gains from stock awards were 28 percent and realized gains from stock options 48 percent. But using EFV measures, the average total compensation of the same 500 executives in 2020 was \$16.3 million. For stock awards, average ARG was \$15.5 million while EFV was \$8.4 million; while for stock options, average ARG was \$19.5 million, while average EFV was \$2.0 million.

In short, in favoring EFV over ARG as the measure of stock-based pay, the SEC misinforms the public concerning the actual take-home pay of senior corporate executives. Meanwhile, as is the case for all employees, these executives pay taxes on ARG to the U.S. Treasury via their personal filings to the Internal Revenue Service, while the corporation that employs them uses ARG in the calculation of its compensation expense in filing its corporate tax return with the IRS.

A particularly egregious, and important, example of what Hopkins and I have labeled “The Mismeasure of Mammon”¹³⁸ is the pay of John C. Martin, CEO of Gilead Sciences, in 2014 and 2015, when the pharmaceutical company was profiting immensely from the high prices of its Sovaldi/Harvoni hepatitis-C drugs. An 18-month Congressional inquiry by U.S. Senators Ron Wyden (D-OR) and Charles Grassley (R-IA) probed the rationale for Gilead’s pricing strategy, concluding, in a report issued on December 1, 2015, that “a key consideration in Gilead’s decision-making process to determine the ultimate price of Sovaldi was setting the price such that it would not only maximize revenue, but also prepare the market for Harvoni and its even higher price.”¹³⁹ But the Wyden-Grassley report makes no attempt to probe the influence and impact of Gilead’s mode of executive compensation on its strategy to charge high drug prices for the sake of an exploding stock price. The objective of Gilead’s executives in setting high prices was not to maximize revenue but rather to “maximize shareholder value” so that soaring stock prices would translate into enormous compensation packages.¹⁴⁰

In a hard-hitting article entitled “Gilead’s greed that kills,” economist Jeffrey Sachs makes the case that the pricing of Sovaldi and Harvoni handed Gilead CEO Martin “the spoils of untrammelled greed”:

Gilead Sciences is an American pharmaceutical company driven by unquenchable greed. The company is causing hundreds of thousands of Americans with Hepatitis C to suffer unnecessarily and many of them to die as the result of its monopolistic practices, while public health programs face bankruptcy. Gilead CEO John C. Martin took home a reported \$19 million last year in compensation—the spoils of untrammelled greed.¹⁴¹

¹³⁸ Hopkins and Lazonick, “The Mismeasure of Mammon.”

¹³⁹ Staffs of Senators Ron Wyden and Charles E. Grassley, “The Price of Sovaldi and Its Impact in the U.S. Health Care System,” U.S. Senate, Committee on Finance, December 1, 2015, p. 117, <http://www.finance.senate.gov/ranking-members-news/wyden-grassley-sovaldi-investigation-finds-revenue-driven-pricing-strategy-behind-84-000-hepatitis-drug>.

¹⁴⁰ Lazonick et al., “U.S. Pharma’s Business Model: Why It Is Broken, and How It Can Be Fixed.” For an analysis of the relation between corporate financialization and Gilead’s drug pricing, see Victor Roy and Lawrence King, “Betting on Hepatitis C: How Financial Speculation in Drug Development Influences Access to Medicines,” *BMJ*, July 17, 2011, 354: i3718, <http://www.bmj.com/content/354/bmj.i3718>.

¹⁴¹ Jeffrey Sachs, “Gilead’s greed that kills,” *Huffington Post*, July 27, 2015, https://www.huffpost.com/entry/gileads-greed-that-kills_b_7878102.

The “reported \$19 million” that Sachs cites, however, is an EFV measure of executive compensation, taken from Gilead’s Summary Compensation Table, that vastly understates CEO Martin’s “money-in-the-bank” compensation, which includes his ARG from the exercise of stock options and the vesting of stock awards. Multiply “the spoils of untrammelled greed” by ten, and we are close to Martin’s actual compensation in 2014 of \$192.8 million—with 97 percent coming from realized gains of stock-based pay. In 2015, Gilead reported Martin’s total annual pay in the Summary Compensation Table at \$18.8 million. But his actual total compensation for 2015 was \$232.0 million, with 98 percent from realized gains of stock-based pay.

For the 20 years of his tenure as Gilead CEO, from 1996 to 2015, Martin’s reported total compensation, using EFV measures for stock-based pay, was \$208.6 million; in fact, his actual take-home pay for these 20 years was \$1,000.9 million, of which 13 percent was realized gains from stock options and 82 percent realized gains from stock awards.¹⁴² Over 42 percent of Martin’s \$1-billion pay bonanza accrued in 2014-2015 as Gilead’s stock price soared in these two years and he realized gains on his stock-based pay at the rate of about \$20 million per month. Buoyed by over \$30 billion in net income, much of it from Sovaldi/Harvoni sales, Martin helped to boost Gilead’s stock price even more by executing \$15.3 billion in buybacks, thus assisting himself in further elevating his own “performance” pay.

If the preferred goal in corporate governance is to provide incentives for value creation rather than value extraction, stock-based pay for executives should be eliminated. Stock-based pay incentivizes and rewards senior executive decision-making in corporate resource allocation that foments speculation and manipulation, to the detriment of innovation. Instead, senior executives should be encouraged and rewarded by metrics related to the success of the innovative enterprise as a whole. They should be compensated for investing in higher-quality products that build on their companies’ distinctive productive capabilities, and for fostering new competitive products that enhance the employment security and income of the employees whose skills and efforts brought those products into existence. These executives should view profits as a precious resource that provides financial commitment necessary to support the innovation process. The use of stock buybacks should be viewed as a leading indicator of senior executives who are *not* doing their jobs and of a company that will cease to be innovative—and perhaps at some point even cease to exist.

- ***Reconstitute corporate boards***

As already discussed, MSV is an ideology that erroneously assumes that, of all participants in the activities of the business corporation, only shareholders take the risk of whether the company will generate profits from its productive activities, and hence only shareholders have a legitimate economic claim on profits if and when they occur. It assumes that, in a market economy, all other participants receive a market-determined, risk-free payment for productive goods and services rendered. Hence, according to this distorted view of the world, those other participants do not bear the risk of whether the company turns a profit or sustains a loss. Therefore, the MSV argument goes, shareholders, as the economy’s risk-bearers, are in the best position to reallocate resources to their most efficient uses.

¹⁴² Lazonick et al., “U.S. Pharma’s Business Model: Why It Is Broken, and How It Can Be Fixed.”

As a corollary, it follows from MSV ideology that only shareholders, as the economy's sole risk-takers, have a legitimate claim to be engaged directly in the exercise of corporate decision-making through representation on corporate boards of directors. In fact, in the United States, the directors of most publicly listed companies are elected by shareholders—typically by nominal ratification of a slate of candidates proposed by incumbent management.

The problem with this system of corporate governance, however, is that public shareholders are not the only risk-takers in the uncertain process of transforming investments in the firm's productive capabilities into revenue-generating products. Indeed, with limited liability and access to the liquid stock market on which they can buy and sell shares, public shareholders take little risk at all. If a stock price falls or a company fails to pay a dividend, public shareholders can limit their losses instantaneously by selling their shares—what has long been known as “the Wall Street walk.” Public shareholders can choose to diversify their holdings across a vast array of highly liquid stocks as well.

Since workers and taxpayers are risk-takers who invest in the firm's productive capabilities, the argument for extending to them the right to voting representation on corporate boards is clear. In the U.S. context, however, it is viewed as a radical proposition.¹⁴³ The extension of democratic rights to previously disenfranchised groups of people represents major social change, but radical change is urgently required given the damage that the prevailing system of U.S. corporate governance is inflicting on the attainment of stable and equitable growth.

Shaped by the highly flawed ideology that public shareholding represents “ownership” of productive assets, the SEC-sanctioned proxy-voting system as it now exists undermines sustainable prosperity.¹⁴⁴ All board members should function as trustees who recognize the generation of innovative products as the purpose of the firm, subject to the social norms of providing stable employment and an equitable distribution of income to the firm's participants. And board members should represent the participants in the corporation—including households as workers and taxpayers—who bear the risk of value creation and should exclude those whose interest in the corporation is predatory value extraction.

Instead, as Shin and I explain in our book *Predatory Value Extraction*, over the past four decades, in the name of MSV the looting of the business corporation has become the norm. From its adoption in November 1982, SEC Rule 10b-18 has given those who exercise strategic control over corporate resource allocation a license to loot the corporate treasury by means of open-market

¹⁴³ See Susan R. Holmberg, “Fighting Short-Termism with Worker Power: Can Germany's Co-Determination System Fix American Corporate Governance?” Roosevelt Institute, October 2017, <https://rooseveltinstitute.org/wp-content/uploads/2020/07/RI-Fighting-Short-Termism-201710.pdf>; Susan R. Holmberg, “Workers on corporate boards: Germany's had them for decades,” *New York Times*, January 6, 2019, <https://www.nytimes.com/2019/01/06/opinion/warren-workers-boards.html>; Lenore Palladino, “Economic Democracy at Work: Why (and How) Workers Should Be Represented on US Corporate Boards,” *Journal of Law and Political Economy*, 1, 3, 2021: 373-396, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3476669; William Lazonick and Ulrich Jürgens, “International Workshop Series on the German System of Codetermination,” Institut für die Geschichte und Zukunft der Arbeit in collaboration with Wissenschaftszentrum-Berlin and Academic-Industry Research Network, October 2020-february 2021, <https://igza.org/veranstaltung/internationaler-igza-workshop-zum-deutschen-mitbestimmungssystem/>.

¹⁴⁴ Jang-Sup Shin, “The Subversion of Shareholder Democracy and the Rise of Hedge-Fund Activism,” Institute for New Economic Thinking Working Paper No. 77, July 2018, <https://www.ineteconomics.org/research/research-papers/the-subversion-of-shareholder-democracy>; Lazonick and Shin, *Predatory Value Extraction*, ch. 5.

repurchases.¹⁴⁵ As we have also seen, stock-based executive pay gives senior corporate executives, as value extracting insiders, an incentive to loot. Meanwhile, powerful asset-management companies along with various pension funds and mutual funds have become value-extracting enablers as their fund managers seek to exceed quarterly yield targets by placing a portion of their funds' financial assets with the hedge funds that are the biggest corporate looters. Especially since (as discussed below) the 1996 passage of the National Securities Markets Improvement Act, these asset managers have provided both finance and proxy votes to a relatively small number of hedge-fund activists who, as value-extracting outsiders, have pushed the looting of the business corporation to new extremes.

Consider the case of General Electric (GE), a once-iconic U.S. company that in 2010-2019 was No. 14 among the largest industrial repurchasers, with \$50.3 billion in buybacks (135 percent of net income) and \$67.0 billion in dividends (another percent of net income) (see Table 4 above).¹⁴⁶ On October 5, 2015, Nelson Peltz's Trian Partners made public a whitepaper, splashed with GE's logo, entitled, "Transformation Underway...But Nobody Cares,"¹⁴⁷ disclosing that the hedge fund had accumulated \$2.5 billion of GE's shares of stock—its largest ever stake in a company but just about 0.9 percent of GE's outstanding shares.¹⁴⁸ In its whitepaper, Trian made the claim that it was engaging in "constructive dialogue" with GE,¹⁴⁹ and that it believed that, by implementing Trian's "advice," GE could boost its stock price to \$45 by 2017—a 180 percent increase in no more than two years. That is, Trian expected to transform its \$2.5 billion stake into one worth \$4.5 billion on the market plus any dividends received over the period. GE CEO Jeffrey Immelt and CFO Jeffrey Bornstein were quoted by the *Wall Street Journal* as being "completely aligned on the levers" suggested by Trian to get GE "from point A to point B." Referring to Trian's proposal to jack up GE's stock price by doing large-scale buybacks, Immelt stated: "The repurchase opportunity is right in front of us."¹⁵⁰

In 2016, GE distributed \$8.8 million in dividends, just a shade under 100 percent of net income, plus \$22.6 billion in buybacks, 256 percent of net income. In the first quarter of 2017, however, Peltz let it be known that he wanted CEO Immelt out, and by June Immelt announced that he was stepping down.¹⁵¹ In October 2017, Peltz got GE to put his son-in-law and Trian partner Edward Garden on the company's board.¹⁵² From 2016 to 2021, GE's revenues declined from \$119.7 billion to \$74.2 billion, and its worldwide employment from 295,000 to 168,000. Over the years, 2017-2021, the company losses totaled \$36.8 billion. In November 2021, it was announced that

¹⁴⁵ Jacobson and Lazonick, "A License to Loot."

¹⁴⁶ The following brief summary draws on William Lazonick and Matt Hopkins, "General Electric in the Grip of Predatory Value Extractors," Academic-Industry Research network unpublished note, April 4, 2021, as a contribution to Nick Juravich and Arthur C. Wheaton, "Building a Sustainable Future for General Electric in Schenectady, New York, and Lynn, Massachusetts," School of Industrial and Labor Relations, Cornell University, and Labor Resource Center, UMass Boston, November 2021, https://www.umb.edu/editor_uploads/images/cla_d_o/UMB.Cornell.GE.Report.pdf.

¹⁴⁷ Trian Partners, "Transformation Underway...But Nobody Cares," Trian Partners Whitepaper, October, 5, 2015, <https://intelligentoptioninvestor.com/wp-content/uploads/2015/10/Trian-GE-WP-Presentation.pdf>

¹⁴⁸ David Benoit and Ted Mann, "Activist firm Trian takes \$2.5 billion stake in General Electric; Nelson Peltz's Trian raises pressure on GE's Immelt," *Wall Street Journal*, October 5, 2015.

¹⁴⁹ Trian Partners, "Transformation Underway," p.6.

¹⁵⁰ Benoit and Mann, "Activist firm Trian takes \$2.5 billion stake in General Electric,"

¹⁵¹ Ronald Orol, "Here's how activist Nelson Peltz turned the light out in GE CEO Jeff Immelt," *The Street*, June 12, 2017, <https://www.thestreet.com/investing/ge-s-immelt-to-step-down-as-trian-s-peltz-hovers-14173997>.

¹⁵² Thomas Gryta, David Benoit, and Joann S. Lublin, "GE gives activist Trian a seat on the board," *Wall Street Journal*, October 9, 2017, <https://www.wsj.com/articles/trian-takes-board-seat-at-general-electric-1507549221>.

GE would be broken up into three companies, engaged in energy, medical equipment, aviation—the industrial activities on which from the last decades of the 19th century the company was built.¹⁵³ While Peltz has sold chunks of GE stock at different points in time, the company’s shares still represent about five percent of Trian’s portfolio,¹⁵⁴ and Peltz and Garden have pushed for the GE break up as a way of “creating” shareholder value for themselves.

To repeat, Trian Partners has never held more than 0.9 percent of GE’s shares outstanding. So how have Peltz and son-in-law been able to exercise so much power over GE’s resource allocation? What follows is a brief summary of the analysis that Shin and I lay out in chapter five of *Predatory Value Extraction*.

In 1988, the U.S. Department of Labor issued what has become known as the “Avon letter,” which deemed it a fiduciary obligation for pension funds to vote the shares in their asset portfolios. In 2003, a ruling by the SEC extended this fiduciary obligation to mutual funds,¹⁵⁵ thus making it much easier for a hedge-fund activist with only a small percentage of a company’s shares outstanding to line up a large block of proxy votes for board elections and thus pose a credible threat to incumbent management’s strategic control. In mobilizing the proxy votes, the activists can get help by lobbying the two major proxy advisory services companies, ISS and Glass Lewis, which emerged to dominate this specialized segment as a result of the 2003 SEC ruling, to recommend to institutional investors a slate of value-extracting candidates for election to the corporate board.¹⁵⁶

Meanwhile, in the 1990s, regulatory changes had increased the tools available to hedge funds to attack incumbent corporate management, as well as the size of the “war chests” (to use Carl Icahn’s term¹⁵⁷) under hedge-fund management that fund the value-extracting attacks. In 1992 and 1999, SEC amendments to its proxy regulations enabled asset managers to communicate freely among themselves and with corporate management concerning issues of corporate control. As a result, it became much easier for hedge funds to form de facto cartels for activist campaigns.¹⁵⁸

The National Securities Markets Improvement Act of 1996¹⁵⁹ augmented the regulatory power of the federal government, and especially the SEC, vis-à-vis the states in amending the Investment Company Act and Investment Advisers Act, both of 1940, and removed the size restrictions on hedge funds and private-equity funds that had previously limited to 99 investors those eligible for

¹⁵³ Jesse Pound, “GE to break up into 3 companies, focusing on aviation, health care, and energy,” *CNBC*, November 9, 2021, <https://www.cnn.com/2021/11/09/ge-to-break-up-into-3-companies-focusing-on-aviation-healthcare-and-energy.html>.

¹⁵⁴ John Vincent, “Tracking Nelson Peltz’s Trian Fund Management Portfolio—Q42021,” *Seeking Alpha*, February 20, 2022, <https://seekingalpha.com/article/4488678-nelson-peltzs-trian-fund-management-portfolio-q4-2021-update>.

¹⁵⁵ U.S. Securities and Exchange Commission, “Final Rule: Disclosure of Proxy Voting Policies and Proxy Voting Records by Registered Management Investment Companies,” 17 CFR Parts 239, 249, 270, and 274; Release Nos. 33-8188, 34-47304, IC-25922; File No. S7-36-02, April 14, 2003, <https://www.sec.gov/rules/final/33-8188.htm>.

¹⁵⁶ Shin, “The Subversion of Shareholder Democracy and the Rise of Hedge-Fund Activism”: Lazonick and Shin, *Predatory Value Extraction*, ch. 5.

¹⁵⁷ Lazonick et al., “What We Learn about Inequality from Carl Icahn’s \$2 Billion ‘No Brainer’.”

¹⁵⁸ Lazonick and Shin, *Predatory Value Extraction*, pp. 109-111. See John C. Coffee and Darius Palia, “The Wolf at the Door: The Impact of Hedge-Fund Activism on Corporate Governance,” *Annals of Corporate Governance*, 1, 1, 2016: 1-94.

¹⁵⁹ U.S. Congress, “National Securities Markets Improvement Act of 1996, Public Law 104-290,” October 11, 1996, <https://www.congress.gov/104/plaws/publ290/PLAW-104publ290.pdf>; Paul S. Stevens and Craig S. Tyle, “Mutual Funds, Investment Advisers, and the National Securities Markets Improvement Act,” *Business Lawyer (ABA)* 52, 2, 1996-1997: 419-478; David Dayen, “What Good are Hedge Funds?” *The American Prospect*, Spring 2016, <https://prospect.org/power/good-hedge-funds/>.

an exempting from regulation under these Acts. As a result, assets under management by unregulated hedge funds (and private-equity funds) soared from the late 1990s, augmenting the financial power of hedge-funds activists to engage in predatory value extraction while giving fund managers of pensions and university endowments, among others, stakes in activist campaigns in their quest for higher yields on their financial portfolios.

A reform agenda to encourage major U.S. business corporations to participate in the investment triad would exclude predatory value extractors from director seats on corporate boards. Instead, companies should be overseen by representatives of value-creating participants in the economy, including workers and taxpayers. In addition to rescinding SEC Rule 10b-18, Sen. Tammy Baldwin's Reward Work Act would have representatives of workers as one-third of board members of each publicly listed company in the United States.¹⁶⁰ In August 2018, Sen. Elizabeth Warren (D-MA) introduced the Accountable Capitalism Act, which, among other things, would require that the approximately 1,600 U.S. corporations with \$1 billion or more in annual revenues have worker representatives as forty percent of board members.¹⁶¹

- ***Reform the corporate tax system***

Big businesses and the households that grow wealthy from their involvement in these firms must pay their fair share of taxes to reimburse the vast majority of households whose tax payments have supported government investments in infrastructure and capabilities. Yet MSV ideology maintains that taxes on large corporations and the wealthiest households will undermine investment in the productive capabilities that can deliver more employment opportunities, higher incomes, and more rapid productivity growth. This ideology underpinned the Republican-supported Tax Cuts and Jobs Act, passed by the U.S. Congress in December 2017.¹⁶²

In the debate over the 2017 Act, both its advocates and critics recognized that the main corporate use of the extra income gained from lowering the corporate tax rates on domestic and repatriated profits would be increased distributions to shareholders in the form of cash dividends and stock buybacks.¹⁶³ Indeed, Senate Democrats called out the 2017 Act as #GOPTaxScam, emphasizing that the tax breaks were being used to fund stock buybacks.¹⁶⁴ As Senate Democratic Leader Chuck Schumer (D-NY) put it in a #GOPTaxScam report, issued in February 2018:

¹⁶⁰ Baldwin, "U.S. Senator Tammy Baldwin reintroduces legislation to rein in stock buybacks and give workers a voice on corporate boards."

¹⁶¹ Matthew Yglesias, "Elizabeth Warren has a plan to save capitalism," *Vox*, August 15, 2018, <https://www.vox.com/2018/8/15/17683022/elizabeth-warren-accountable-capitalism-corporations>.

¹⁶² Tax Policy Center, "How did the Tax Cuts and Jobs Act change business taxes?" Tax Policy Center's Briefing Book, n.d., <https://www.taxpolicycenter.org/briefing-book/how-did-tax-cuts-and-jobs-act-change-business-taxes>.

¹⁶³ William Lazonick, "How Congress can turn the Republican tax cuts into middle-class jobs," *The Hill*, February 5, 2018, <https://thehill.com/opinion/finance/372760-congress-can-turn-the-republican-tax-cuts-into-new-middle-class-jobs>; Rick Wartzman and William Lazonick, "Don't let pay increases coming out of tax reform fool you," *Washington Post*, February 6, 2018, https://www.washingtonpost.com/opinions/dont-let-pay-increases-coming-out-of-tax-reform-fool-you/2018/02/06/1271905a-06a6-11e8-94e8-e8b8600ade23_story.html.

¹⁶⁴ Senate Democrats, "SPECIAL REPORT: The #GOPTaxScam Is Setting All The Wrong Records: In Two Months, \$200 Billion In Corporate Share Buybacks Have Been Announced, Overwhelmingly Funneling Huge Amounts Of Money To Corporate Executives And Wealthy Shareholders While The Middle Class Gets Left Behind," February 28, 2018, <https://www.democrats.senate.gov/newsroom/press-releases/special-report-the-goptaxscam-is-setting-all-the-wrong-records->

The record-setting pace of stock buybacks is proof that companies across the country are stuffing the savings from the Republican tax bill into their own pockets and the pockets of their wealthy investors, rather than workers. These numbers prove that the bulk of the savings from this bill aren't trickling down into higher wages, but into bigger gains for giant corporations and the wealthy.¹⁶⁵

As the Biden administration seeks to fund major government programs to invest in both physical infrastructure and human capabilities, the recognition that the prime purpose of the lowering of the corporate tax rate from 35 percent to 21 percent by the 2017 Act was to fund even more buybacks should make it a no-brainer that a measure to restore much if not all of that tax cut should be integral to the Build Back Better agenda. Initially, President Biden argued for raising the corporate tax rate to between 25 and 28 percent from its current 21 percent.¹⁶⁶ Recognizing rampant corporate tax avoidance, on October 28, 2021, the White House announced: “The Build Back Better framework will impose a 15% minimum tax on the corporate profits that large corporations—those with over \$1 billion in profits—report to shareholders.”¹⁶⁷ In the 2023 *Budget*, the Biden administration proposes to “raise the corporate tax rate to 28 percent, still well below the 35 percent rate that prevailed for most of the last several decades.”¹⁶⁸ At this point, it would have strengthened the administration’s case for lifting the corporate tax rate to observe that major U.S. corporations had used almost all of the extra profits obtained from the 2017 tax cuts to buy back their own stock.

In September 2021, there was a proposal from Sen. Sherrod Brown (D-OH) and Sen. Ron Wyden (D-OR) for stock buybacks to be taxed at two percent.¹⁶⁹ In October, the White House’s Build Back Better Framework proposed a buybacks surcharge of one percent.¹⁷⁰ There was the predictable business blowback about how even a small tax on buybacks would mean the end of the stock-market boom.¹⁷¹ Despite good intentions, however, whether at two or one percent, these surcharge proposals would only serve to legitimize buybacks, and the tax revenue raised from them would come nowhere near to offsetting the immense damage to the U.S. economy and U.S. households that buybacks cause.¹⁷²

[in-two-months-200-billion-in-corporate-share-buybacks-have-been-announced-overwhelmingly-funneling-huge-amounts-of-money-to-corporate-executives-and-wealthy-shareholders-while-the-middle-class-gets-left-behind](#); See Lazonick, et al., “Why Stock Buybacks Are Dangerous for the Economy.”

¹⁶⁵ Ibid. See also DSCC, “#GOPTaxScam Two Years Later: ‘A Lot of Stock Buybacks’ for Corporate Shareholders & ‘Negligible Benefits’ for Workers,” December 17, 2019, <https://www.dscc.org/news/goptaxscam-two-years-later-a-lot-of-stock-buybacks-for-corporate-shareholders-negligible-benefits-for-workers/>. See Lazonick, et al., “Why Stock Buybacks Are Dangerous for the Economy.”

¹⁶⁶ Christie Wilkie, “Biden open to 25% corporate tax rate as part of an infrastructure bill,” *CNBC*, May 6, 2021, <https://www.cnn.com/2021/05/06/biden-says-corporate-tax-rate-should-be-between-25percent-and-28percent.html>.

¹⁶⁷ White House, “Build Back Better Framework,” White House Briefing Room, October 28, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/28/build-back-better-framework/>.

¹⁶⁸ White House, *Budget of the U.S. Government*, p. 316.

¹⁶⁹ Sherrod Brown, “Brown, Wyden unveil major new legislation to tax stock buybacks,” Sen. Sherrod Brown press release, September 10, 2021, <https://www.brown.senate.gov/newsroom/press/release/brown-wyden-tax-stock-buybacks>; Sabrina Eaton, “Sen. Sherrod Brown introduces legislation to tax stock buybacks,” *Cleveland.com*, September 10, 2021, <https://www.cleveland.com/open/2021/09/sen-sherrod-brown-introduces-legislation-to-tax-stock-buybacks.html>.

¹⁷⁰ White House, “Build Back Better Framework.”

¹⁷¹ Eric Rosenbaum, “What a tax on stock buybacks would, and wouldn’t mean for the bull market,” *CNBC*, October 8, 2021, <https://www.cnn.com/2021/10/08/what-a-tax-on-stock-buybacks-would-mean-for-the-bull-market.html>.

¹⁷² Lazonick, et al., “Why Stock Buybacks Are Dangerous for the Economy.”

A growing body of research, much of it carried out by my nonprofit organization, the Academic-Industry Research Network,¹⁷³ in collaboration with the Institute for New Economic Thinking,¹⁷⁴ shows why, in a range of industries, stock buybacks are toxic. They are a prime cause of extreme income inequality, the disappearance of stable employment opportunity, and sagging U.S. industrial productivity. If the Biden administration insists on taxing rather than banning buybacks, then it should set the surcharge at, say, 40 percent, with a mandatory warning banner on the corporate repurchaser's website that reads: STOCK BUYBACKS DESTROY THE MIDDLE CLASS.

If U.S. corporations were using their profits to reinvest in productive capabilities, there could be a case for a lower corporate tax rate. With growth in productive employment, a lower corporate tax rate could generate corporate tax revenues because of higher profits that represent the gains from innovative enterprise as well as the higher incomes and more stable employment of a productive labor force. The key to this supply-side scenario is corporate investment in innovation.

- *Support triadic investment in collective and cumulative careers*

In a world of rapid technological innovation and intense global competition, the value-creating economy depends on the continuous augmentation of the productive capabilities of the labor force. That means that both higher education and the work experience of the national labor force need constant upgrading as a necessary condition for producing innovative products. Achieving productive outcomes and returning a substantial portion of the profits from the productivity gains to productive workers are fundamental to achieving sustainable prosperity.¹⁷⁵

Just as companies need collective and cumulative learning to be innovative, employees need *collective and cumulative careers* (CCCs) to remain productive over working lives that now span four decades or more. Under the Old Economy business model that prevailed in the decades after World War II, companies provided CCCs through the CWOC employment norm. With the rise to dominance of the New Economy business model in the 1980s and 1990s, however, the CWOC norm disappeared.¹⁷⁶ New Economy start-ups could not attract talent by offering a career with one company because a CWOC was not an inducement that start-ups with uncertain futures could promise to fulfill. Rather, in the process I have called “marketization,” New Economy start-ups could induce talent to leave or eschew CWOC employment with Old Economy companies for the sake of stock options that could become very valuable if and when the company did an IPO on NASDAQ.¹⁷⁷

This New Economy practice of using stock options to attract and retain a broad base of employees remained intact even after some start-ups became going concerns with employees in the tens of thousands. Over the course of the 1980s and 1990s, this marketization process corroded the CWOC norm at Old Economy companies, with IBM's deliberate downsizing of its labor force from

¹⁷³ The Academic-Industry Research Network website, <https://theairnet.org>.

¹⁷⁴ William Lazonick webpage, Institute for New Economic Thinking, <https://www.ineteconomics.org/research/experts/wlazonick>.

¹⁷⁵ Lazonick, et al., “‘Build Back Better’ Needs an Agenda for Upward Mobility.”

¹⁷⁶ Lazonick, *Sustainable Prosperity in the New Economy?*.

¹⁷⁷ Ibid.

374,000 in 1990 to 220,000 in 1994 representing a pivotal case.¹⁷⁸ In the 21st century, the globalization of the labor force, particularly in advanced-technology fields, has completed the erosion of the CWOC norm in the United States, as key jobs are offshored to lower-wage areas of the world and as key employees are recruited from globalized labor supplies, often on temporary nonimmigrant visas, to fill high-end technology jobs in the United States.¹⁷⁹ Meanwhile, the human capabilities of older workers, acquired through many years of education and decades of work experience, atrophy at a time when the application of those capabilities to confront new economic and social challenges is what a value-creating economy needs.

In a globalized economy with rapid technological change, the CWOC norm will not be restored. This dramatic erosion and devaluation of the CWOC in the now-dominant business model has created enormous challenges for members of the U.S. labor force to construct for themselves through interorganizational mobility the CCCs that a middle-class existence requires. CCCs have become increasingly necessary for individuals to maintain a good standard of living over an expected forty to fifty years of their working life, with sufficient savings from employment income to sustain them for another twenty years or more in retirement. Without CCCs, people who were deemed to be highly productive in their forties may become obsolete in their fifties, or they may find that educated and experienced workers in lower-wage areas of the world have become equally or even better qualified to do their jobs.

For the sake of sustainable prosperity, social institutions must be restructured to support CCCs across business firms, government agencies, and civil-society organizations. There are many different paths by which individuals can structure their CCCs. Over the course of their careers, people may develop skills through a series of jobs with different employers in an interlinked network of business firms, government agencies, and civil-society organizations. In addition, a CCC may be followed across national borders, often with employment by one multinational firm, agency, or organization or through a more individualized search for a globalized career path.¹⁸⁰

As they have been doing since the late 1980s, many of the most talented and ambitious young people embarking on careers may look for a quick hit on Wall Street or a venture-backed IPO that can provide them with enough income for a lifetime without pursuing a CCC. The problem is especially acute when the large corporations that used to be the bedrocks of CCCs support the dominance of the “financial economy” over the “productive economy” by distributing almost all, if not more, of their profits to shareholders in the form of stock buybacks and cash dividends.

In summary, how can the United States be put back on a path to stable and equitable economic growth? In my view, the policy agenda that I have outlined is a necessary condition for sustainable prosperity: ban stock buybacks as open-market repurchases; structure executive remuneration to incentivize value creation, not value extraction; place representatives of households as workers and taxpayers on corporate boards while excluding predatory value-extractors from the exercise of strategic control; fix the broken tax system so that profitable corporations and rich households return value to the society to pay for the productive capabilities with which society supplies them,

¹⁷⁸ Ibid., ch. 2.

¹⁷⁹ Lazonick, et al., “Equality Denied: Tech and African Americans.”

¹⁸⁰ Lazonick, *Sustainable Prosperity in the New Economy?*, ch. 5; Lazonick, “Labor in the Twenty-First Century.”

including an educated and experienced labor force; and coordinate the investment triad to enable an ever-growing proportion of the population to pursue and prosper from collective and cumulative careers.

To quote then-Vice President Joe Biden's concluding line of his September 2016 *Wall Street Journal* op-ed: "The future of the economy depends on it."

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