Public Equity Stakes in U.S. Economic Policymaking

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Executive Summary

The passage of the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act mark a new moment of robust industrial policy. The Biden Administration's policies authorize $4 trillion across industrial policy programs, including $1.2 trillion on the clean energy transformation of the U.S. economy. Advocates of industrial policy argue that it can achieve social goals by incentivizing the creation of well-paying jobs and building more resilient economic structures. The Administration has been clear throughout its ramp-up in industrial policymaking that its goal is to crowd in private investment, rather than to fully publicly fund the resources necessary for the clean energy transition. Because the government must work with private companies to achieve goals like urgently decarbonizing our economy, there is a risk that industrial policy enables the necessary renewable energy transition while the economic gains of such activity will only benefit business and financial elites. The flow of funds from the public to private sector contained in the Biden Administration's industrial policy making has, thus far, contained no role for the public in corporate governance. U.S. industrial policy must include corporate 'guardrails' to challenge the dominant corporate governance framework of shareholder primacy to be successful. This article discusses public equity stakes as one such mechanism for active participation by the public in companies receiving investment as a result of industrial policy.

Since the 1980s, U.S. corporations have operated according to the principle of shareholder primacy: the concept that the sole purpose of the corporation is to enrich its shareholders, rather than to produce goods and services. This has meant that the laws and norms of corporate governance have focused on maximizing shareholder value rather than establishing and maintaining the organizational, social and financial conditions necessary for ongoing productive innovation. Pragmatically, this has meant that U.S. corporate leaders have focused on increasing their company's share prices, which not coincidentally are central to executive pay, while in many cases neglecting the long-term investments in the workforce and production process necessary for innovation. In the context of industrial policy, this means that firms who use public funding will consider it their goal to respond to the needs of their shareholders rather than the public interest that policy attempts to foster. It is critical for successful policy design that public investment in private companies contain mechanisms to ensure that the public interest goals of public policy are met. This is utterly essential if we are to maintain the innovative capacity of the U.S. economy for the long term. In this paper we propose that policymakers use equity stakes held by the government as a central tool in its industrial policy toolbox.

A public equity stake in a private company is when the government holds a set of corporate stock. It means that the public would have rights in the corporate governance process of that company, just as such a financial investment does for private financiers.[1] The effects of public investment in private companies can never be predicted with certainty--by its nature, the innovation process is full of risk.

[1] The government is "authorized to purchase, hold, and invest in securities." (https://www.law.cornell.edu/uscode/text/15/77r-1).

A public equity stake would function differently from a loan or grant in that it would enable the public to remain involved in the key choice points as private companies produce, make investment decisions, and innovate when a public investment has been made, making it possible--though not certain--that the public stakes contribute to the kinds of organizational capabilities that companies need to produce, rather than extractive corporate practices. A public equity stake gives the public a meaningful way to continue to engage when companies and projects have been deemed in the public interest such that they are worth public investment.

The U.S. government has a history of taking public equity stakes in times of crisis in the private markets, most recently during the financial crisis, when stakes were taken in the financial and auto companies that were at risk of collapse. As the government engages in more proactive industrial policy, for example to encourage the transformation of the auto industry towards electric vehicles, it has an opportunity to use equity stakes for proactive purposes. The substantive implementation questions for proactive public participation in corporate decision-making are manifold. Public equity stakes could mean the federal government receives a variable financial return on an investment, but what kinds of shares should be issued to the government and what dividend rights should they have? Public equity stakes could enable involvement in governance, including the ability to veto certain company actions, and accompany both economic and governance rights. How should the public interest be defined in terms of the federal government's responsibilities in voting? Within the institutional structure of the government, who should manage public equity stakes? The recent historical experience of public equity stakes in the United States has been in moments of crisis. What lessons have been learned and what fresh approaches are needed? While there is a wide variety of international experience with public equity stakes, the U.S. corporate and financial context is unique. This article offers an overview of the key benefits of public equity stakes in U.S. industrial policy and the policy design questions that arise in an effort to spur further discussion and attention to this critical public policy.

1. Introduction: From "Conditions" to "Stakes:" Why Consider Public Equity Stakes in U.S. Economic Policymaking

U.S. politicians are embracing "marketcrafting:" using public policy and investment to foster specific industries and structures (Vogel 2018). The Biden Administration's policies authorize $4 trillion across industrial policy programs, including $1.2 trillion on the clean energy transformation of the U.S. economy[2] (Carey 2023). The Administration has been clear throughout its ramp-up in industrial policymaking that its goal is to crowd in private investment, rather than to fully publicly fund or own the resources necessary for the clean energy transition. The majority of new federal spending will flow to private companies and will be administered by firms prioritizing shareholder primacy in corporate governance. Since the 1980s, corporate leaders have prioritized using corporate profits to increase shareholder returns (Lazonick and O'Sullivan 2000; Lazonick and Shin 2020). Incentivizing short term shareholder profits has reduced the innovative capacity of U.S. businesses as companies prioritize shareholder payments in their corporate finance decisions, reducing the focus on the organizational capacities--including financial commitment--necessary for real innovation (Mazzucato 2022; Palladino and Estevez 2022). Thus, there is a risk that industrial policy enables the necessary renewable energy transition, but the economic gains of such activity are extracted by a small group of financial institutions. It is critical for successful policy design that public investment in private companies contain mechanisms to ensure that the public interest goals of public policy are met in order to maintain the innovative capacity of the U.S. economy for the long term.

Industrial policy must contend with how deeply rooted shareholder primacy is in corporate decision-making (Palladino 2021). Over the last four decades, shareholder payments have gone steadily upwards even while real investment and wages stagnated (Davis & McCormack 2021; Palladino & Lazonick 2022). For example, the corporate financial practice of stock buybacks, which increases the value of stock even while no productive improvements occur, exclusively rewards shareholders and financial institutions that sell stock (Palladino & Lazonick 2022). Corporations spent $6.3 trillion on stock buybacks in the 2010s, and are on track to spend even more in the 2020s (Palladino & Lazonick 2022). A comprehensive overhaul of corporate law is necessary, but it is politically challenging. However, corporate guardrails can be implemented within the government's industrial strategies to partially move corporations away from the shareholder primacy paradigm (Mazzucato and Rodrik 2023; Palladino and Estevez 2022).

Incorporating public equity stakes into the industrial policy toolkit is the central mechanism that can enable a consistent public voice in corporate governance when companies are recipients of public dollars. Historically, they have been used in the United States for crisis management, when the federal government takes stakes in failing enterprises that are creating systemic risks (usually exiting

[2] Since certain provisions of the Inflation Reduction Act's tax credits are uncapped, these estimates could turn out to be on the low end of public expenditures in clean energy technologies. Estimates of loan authorizations are not included in the expenditure estimates and could reach into the hundreds of billions as well.

the equity holdings as quickly as possible) (Black 2010; Davidoff and Zaring 2009). The proposal explored in this paper is different: when the government makes a financial investment in a private corporation, the government should hold a public equity stake in order to participate in corporate governance by voting on major corporate decisions and (in certain cases) holding a seat on the corporate boards to ensure the public interest goals of the investment are met.

The substantive implementation questions for proactive public participation in corporate decision-making are manifold. Public equity stakes could mean the federal government receives a variable financial return on an investment, but what kinds of shares should be issued to the government and what dividend rights should they have? Equity stakes enable the government to fund a company while not adding liabilities to the government budget--what should happen to the financial returns that are not dedicated to paying back a discrete loan? Public equity stakes could enable involvement in governance, including the ability to veto certain company actions, and accompany both economic and governance rights. How should the public interest be defined in terms of the federal government's responsibilities in voting? Where within the government infrastructure should public equity stakes be held and managed? This article examines the potential impact of a public equity stake in private companies as well as other discrete opportunities for including corporate guardrails to prevent public funds from flowing mainly to shareholders, to encourage gain-sharing with multiple corporate stakeholders, and to ensure that the public interest embedded in industrial policy is actually met.

Despite the fact that the federal government held public equity stakes in both of the last two economic crises, there is not sufficient research on whether and how such stakes can be implemented as a proactive tool in industrial policy (Davidoff 2010). Public financial investment is meaningful to bolster systemically important but struggling companies and to induce new directions in economic activity. Yet even when companies receive such investments, today's corporate governance framework gives exclusive power to private shareholders, even though private shareholders who purchase publicly-traded shares on secondary markets never contribute directly to a firm's available financial resources (Lazonick 2018). The Biden Administration's industrial policy strategy has included some corporate guardrails as a means to ensure that public funding is serving the public interest. However, the guardrails have been mainly focused on limiting extractive behavior--for example, the prohibitions on stock buybacks and excessive executive compensation in the CHIPS and Science Act--rather than focused on how public equity ownership could strengthen the potential for successful productivity improvements as a result of public investments (Mazzucato 2022; Palladino and Estevez 2022). The provision of "upside sharing" in the CHIPS Notice of Funding Opportunities clarifies the importance of public investment in private profits, and creates

the potential for profit-sharing[3]. However, the flow of funds from the public to private sector contained in the Biden Administration's industrial policy making has, thus far, contained no role for the public in corporate governance.

Some critics of the Biden Administration's industrial policy push point to a real risk of public investment serving only a de-risking function in which losses are socialized but gains are private (Braun & Gabor 2023; Gabor 2023). If properly organized, public equity stakes could foster a better industrial policy by creating a more equitable distribution of the upside of public investment and fostering long term governance and innovation. Public shares will necessitate the establishment of some form of public institution that coordinates management of all of the public equity stakes in private institutions. *Allocating and coordinating* financing is as important to the successful achievement of development and industrial policy as the total volume of new investment.

The scope of public equity stakes could be tied to the scale of financial commitment or could be established through "golden shares"—specific types of equity that only grant the government the right to vote on major corporate decisions such as dissolutions or mergers (Omarova 2016). Above all, public equity stakes must not reinforce shareholder primacy as the sole framework for corporate decision-making. Put simply, the public acting as a shareholder does not have the same set of interests as private shareholders.

Building on past Berggruen Institute publications like "The Mutualist Economy: A New Deal for Ownership" and "The National Investment Authority: An Institutional Blueprint," and the recent essay on the "Designer Economy," this White Paper combines a political economy framework for the necessity for public equity stakes in the United States with a detailed overview of the implementation issues at stake for the proposal to be effective and transformative. The main limitation of this paper is its U.S.-centric nature: the focus here is on U.S. public equity stakes in U.S. companies. Industrial policy for decarbonization must prioritize "creating robust institutions of public investment and democratic coordination in key sectors... to realize the full potential of decarbonization and economic democratization of green spending commitment[s]," (Brusseler 2023, p. 3). This article explores one institutional possibility in the context of U.S. corporate and financial law.

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[3] As stated in the CHIPS Notice of Funding Opportunities, "Recipients receiving more than $150 million in CHIPS Direct Funding will be required to share with the U.S. government a portion of any cash flows or returns that significantly exceed the applicant's projections above an agreed-upon threshold specified in the award. Upside sharing arrangements will be set on a case-by-case basis and, in exceptional circumstances, may be waived by the Department." Because the program is new, there is not as of yet any record of upside profit-sharing transactions, but it provides a concrete example of state engagement with corporate finances in an industrial policy program.

2. The Role of Public Investment in Economic Policymaking

The Harms of Shareholder Primacy for the U.S. Economy

Shareholder primacy, based on the neoclassical conception of perfectly competitive markets, defines the purpose of corporations as maximizing shareholder wealth rather than acting as an innovative enterprise by producing goods and services for the benefit of multiple stakeholders (Lazonick and O'Sullivan 2000; Palladino 2021b). Shareholder primacy has, in fact, two meanings: it refers to what the corporation is supposed to be doing, and who should have power in decision-making (Greenfield 2007). Rather than a theory of production, it is a theory of *allocation*--once value has been produced, the theory refers to who decides where the spoils should go.[4] It answers the political economy question of, who should have power over decision-making -- shareholders-- and who should control distribution and receive the gains of profits --also shareholders.

Among other shortcomings, the theory of shareholder primacy is silent on how innovation happens (Lazonick and O'Sullivan 2000; Palladino 2021c). Investment in innovation—that is, producing higher-quality products at lower costs over time—requires both real sectoral and company-specific investment opportunities as well as financing--particularly financial commitments that take into account the inherent risk of innovation (Milberg and Shapiro 2013). Many studies at the aggregate, sectoral, and firm level have demonstrated a relationship between rising shareholder payments—primarily stock buybacks—and stagnant innovative investment (Palladino and Lazonick 2022). Descriptive data analysis at the firm level for publicly traded firms shows a major transition towards shareholder payments and away from net new investment over the last few decades (Davis and McCormack 2021). Maximizing shareholder returns has justified companies spending $6.3 trillion on stock buybacks (a key form of shareholder payments) in the 2010s (Palladino and Lazonick 2022). Because corporate equity is disproportionately held by white, wealthy households, and managed by financial institutions, shareholder primacy reinforces many of the broader economic and social inequities in U.S. society.

The Industrial Policy Renewal of the 2020s

Neoliberalism discredited industrial policy and active marketcrafting, yet marketcrafting is always happening, whether or not its activities are submerged or visible (Chang and Andreoni 2020; Vogel 2018). As Block (2008) argues, there has always been a "hidden"developmental state in the United States, even as elected officials (Democrats and Republicans) obfuscate that reality (Block 2008). However, the last few years have seen a new turn in U.S. industrial policy making. Tucker (2019) defines industrial policy as "a horizontal lever of state power that influences the distribution of income among industries," (Tucker 2019). Nations are always carrying out industrial policy, whether they frame it as deliberate or not: the rules that shape the balance between sectors and enable or restrict value extraction are constantly in play. Industrial policy and planning takes place when

[4] For more background on the neoliberal theory of shareholder primacy and its theoretical flaws and concrete harms, see Palladino 2021b and Palladino & Lazonick 2022.

policymakers are clear and deliberate about their intentions to prioritize and deprioritize, and can be undertaken for public purposes like incentivizing vaccine production in a pandemic or a whole economy approach towards a clean energy transformation.

Why has industrial policy become a focus of the 2020s in the United States? The pandemic and its attendant economic crises, including the reemergence of inflation, have drawn new attention to the "supply side" and the actual process of production. Economists including Joseph Stiglitz and Dani Rodrik are urging a focus on the supply side and a renewed focus on "productivism," or as Ezra Klein calls it, "supply-side progressivism." Pre-Covid 19, the necessity for a green transformation was clear, and the Green New Deal took shape as a robust plan for climate-oriented industrial policy. The pandemic's economic disruption and, particularly, the supply chain challenges drew attention to the costs of shareholder primacy for America's largest businesses: declining corporate investment, a laser focus on share prices, including trillions of dollars on stock buybacks and dividends, and a lack of capacity to produce critical goods and services in the United States.

The package of industrial policy legislation passed in 2020 and 2021--the Bipartisan Infrastructure Law (BIL), the CHIPS and Science At (CHIPS), and the Inflation Reduction Act (IRA) comprise a historic public investment in decarbonization running through the private sector.[5] The Inflation Reduction Act is intended to revitalize the renewable energy sector in order to reduce emissions by 40 percent in this decade, while creating nine million new green jobs (BlueGreen Alliance 2023). Unless there are rules that stop corporate and financial executives from focusing on value extraction in the name of the corporate governance ideology of shareholder primacy, industrial policy could shift income to certain sectors only to see that income be extracted by a small group of white wealthy households (Mazzucato 2022; Palladino and Estevez 2022). In previous work with Isabel Estevez, I have argued for a broader set of specific 'corporate guardrails' that should be conditions of public investment to achieve industrial policy goals due to the simple fact that public investment is layered on top of decades of shareholder primacy, including limits to corporate extraction (specifically limits to stock buybacks, executive compensation, and mechanisms to encourage innovation), standards for labor practices, and mechanisms to include worker voice and gain-sharing in the production process (Palladino and Estevez 2022).

Public equity stakes can act as a specific type of corporate guardrails in the context of industrial policy that helps mitigate the harmful dynamics of shareholder primacy (though clearly not solving its broader harms). Globally, institutions, like France's Government Shareholding Agency, have used public equity stakes to bring a strategic long-term into corporate boardrooms directly, as "the only stakeholder able to .. give strategic and industrial objectives precedence over investment performance expectations, and financial capacities that can be managed over the long term and without investment timeline limitations," (Government Shareholding Agency 2022). Even though

[5] There are many excellent summaries available for each legislative initiative: see the BlueGreen Alliance for detailed summaries of the Bipartisan Infrastructure Law and the Inflation Reduction Act.

there is deep global experience with public equity stakes, and the U.S. experience with them as a tool of crisis, they have not yet been considered as a centerpiece of U.S. industrial policy.

The Range of Public Investment, Production and Ownership

Public equity stakes, like public loans and grants, must be distinguished from full scale public ownership and public options[6]. These are appropriate for different sectors. Universal services like education, utilities and health care should be decommodified and provided publicly. Sectors like housing should see the establishment of public options for social housing available to all alongside market-based housing provision. Put differently, it is not the case that public equity stakes are the right approach for many economic and social sectors of the economy. The goal here is to consider how to design public equity stakes when they are appropriate, not to argue that they are appropriate where public ownership or public options may be a stronger solution to public provisioning of a good or service.

Utilities-- and particularly energy generation, transmission, and distribution, which must transition quickly to renewable energy-- are a good example of a sector that should be fully or majority publicly owned. Publicly-owned utilities have a long history in the United States, with the Tennessee Valley Authority being perhaps the most famous example--a central New Deal project that continues to provide power to 10 million Americans (and over half of its workforce is unionized). Organizers have been developing proposals for new public ownership: for example, the Climate and Community Project has proposed the Federal Public Power Program (Bozuwa et al. 2023). This program would "inject straightforward, public investment into the electricity system," (Bozuwa et. al 2023, p. 7). Currently, the investor-owned companies that comprise a portion of America's electricity network have prioritized shareholder payments over the renewable energy transition; such companies have made $250 billion in payments to shareholders, mainly in dividends, which is 86 percent of the industry's earnings (Lusiani 2022). This is a sector where a minority public equity stake will not meet the needs of provisioning public infrastructure. However, public equity stakes could serve a useful transitional role in a time when public ownership is not politically possible. The Inflation Reduction Act is structured around tax incentives for renewable energy production --such incentives could be granted in exchange for minority equity stakes as a step towards situating energy as public infrastructure.

The main form of public investment in private companies is often tax breaks, granted to both large and small companies[7]. Federal tax credits are often monetized by companies seeking cash through their sale to cash rich tax credit investors, usually large banks, who buy them at a discount to their face value and use them to offset their own tax liabilities. Tax breaks and direct subsidies are touted

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[6] For a detailed history of public ownership in the United States, see (Hanna 2018).

[7] For much more detail on corporate tax incentives, see the Subsidy Tracker from Good Jobs First: https://subsidytracker.goodjobsfirst.org/.

as necessary for private corporate investment and job creation and retention. Such outlays are often made to encourage companies to move across states, even when the company has no need for such public investment: for example, Nevada recently authorized a $330 million subsidy to Tesla through tax abatements, claiming in its press release that this was due to Tesla's commitment to creating 3,000 jobs. In 2022, Michigan awarded GM $1 billion in incentives for new electric cars, despite GM's record spending on shareholder payments post-financial crisis. Despite clear evidence that such tax incentives do not create more jobs than would have otherwise been created, such incentives continue to be utilized as a core economic development strategy. Public equity stakes offer an alternative that can ensure the public a voice in governance to make it more likely that public funds are actually used for productive purposes.

Public Equity Stakes in the United States during the Great Financial Crisis[8]

"President Obama emphasized that the financial crisis '[has] put our government in the unwelcome position of owning large stakes in private companies for the simple and compelling reason that their survival and the success of our overall economy depend on it,'" Black (2010), p. 589.

The 2008 financial crisis was a moment of extreme systemic risk to the financial system and the broader economy. During the financial crisis and its recessionary aftermath, the federal government took equity stakes in financial institutions and the troubled auto companies. The Emergency Economic Stabilization Act of 2008 (EESA) Section 113 established the Troubled Asset Relief Program (TARP) and empowered the Treasury Secretary to purchase corporate equity in the interest of "stabiliz(ing) the financial system and restor(ing) confidence." TARP made the federal government a significant shareholder in AIG, Citigroup, GM, Chrysler, and GMAC (Black 2010)[9]. The $700 billion TARP asset purchase program included $125 billion of public equity stakes. The deals were negotiated ad hoc by members of the Obama Administration who had previously worked as dealmakers in the financial sector(Davidoff and Zaring 2009). This deal-making approach to the crisis meant that different institutions were dealt with differently and there was no consistent approach to what it actually meant for the government to take an equity stake -- how it would behave as a shareholder (Davidoff and Zaring 2009)[10].

The ad hoc nature of this process was the result of the emergency economic conditions of early 2009 and the ambivalence of the administration to hold equity. The U.S. Treasury described itself

[8] The pandemic crisis spurred another round of public shareholding as authorized by the CARES Act, which appropriated $500 billion for loans, loan guarantees, and other investments to both public and private entities. The Act required the Treasury to receive warrants or other equity interests for any loans to air carriers and other "businesses critical to maintaining national security."

[9] The actual number of shares held by company can be found in Black (2010).

[10] This was not the first time the U.S. government took public equity stakes: In 1984, "the FDIC took an 80 percent stake in a troubled bank, Continental Illinois, and held the stock for seven years before it divested. The FDIC was an active shareholder, though it was careful to distinguish its role as an active shareholder from nationalization: it recruited and selected the new CEO and Chair of the Board. The stock had no voting rights though they did have veto power over directors. The bailout cost the FDIC $1.1 billion." (Black 2010)(p. 565)

during the financial crisis as "reluctant shareholders," (Black 2010)[11]. Then-Treasury Secretary Larry Summers stated in 2007 that when the government acted as a shareholder, it would not necessarily act with pure shareholder primacy motivations-- stating this as a reason for the government to not hold stakes (Backer 2008)[12]. Yet Black has convincingly argued that , "there is no rule book for how the government should act as a shareholder," so why has it acted as such an unwilling one even when its role was arguably far more crucial than other shareholders in times of crisis? (Black 2010). By the end of 2009, the Obama Administration had pivoted from a formal, totally hands-off approach, as stated by Diana Farrell of the National Economic Council, to admitting that "where the U.S. government feels it is necessary to respond to a company's request for substantial assistance, the government will reserve the right to set upfront conditions to protect taxpayers, promote financial stability and encourage growth," (Davidoff 2010, p. 1757). Even with this change in stance, the administration's goal was still to exit its equity stakes quickly once the moment of crisis had abated.

While the EESA specified that the government could not vote as if it were a private shareholder, Davidoff (2010) concludes that the government did not make as strong a deal as a private entity would have, causing Davidoff to conclude that likely because of political concerns, the federal government left economic returns on the table, allowing them to accrue privately rather than to the public interest (Davidoff 2010). Even though it was a significant shareholder, the government did not use its influence to make sure that the companies actually did the kinds of home loan modifications and small business investments that were necessary for the economic recovery and the public interest resulting in losses to the broader economy and gains to private shareholders.

In practice, the bailouts did involve Treasury intervention directly in matters usually considered central to corporate governance, such as executive compensation, for which there were very specifically delineated rules to follow. This begs the question of why, if the government is so reluctant as a shareholder, did it engage so specifically in one of the core issues of corporate governance? Why executive compensation and not other key decisions that boards and substantial shareholders vote on? The justification for the focus on executive compensation was to make sure that managers were not taking excessive risk for their personal benefit, based on their interests from performance-based pay (Black 2010). When Treasury held 80 percent of AIG's stock through a trust structure, Treasury played a major role in selecting the new CEO and incoming directors. With Citigroup, Treasury held shares directly. They had full discretion per the EESA to vote on major transactions, and on other matters they would vote proportionally with other shareholders. The auto

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[11] Professors Davidoff and Zaring describe the government's role in the JPMorgan/Bear Stearns merger as "a deal-making middleman, a traditional role for investment bankers." Davidoff & Zaring (2009), 538.

[12] The Treasury Managing Guiding Principles: "we want to see the capital base of our financial system return to private hands as quickly as possible, while preserving financial stability and promoting economic recovery." Guiding principles include:
- Protect taxpayer investments and maximize overall investment returns within competing constraints
- Promote stability for and prevent disruption of financial markets and economy
- Bolster market confidence to increase private market investment
- Dispose of investments as soon as practicable in a timely and orderly manner that minimizes financial market and economic impact. (p. 574, Black 2010)

bailouts were largely similar in terms of the matters that the Treasury Department would vote on. The auto companies also disclosed that "post-investment, both automakers disclosed that they regularly consulted with the government on significant decisions," (Davidoff 2010, p. 1750). Bank of America is another example where, even without formal control rights, the Treasury leadership exerted significant power and management resigned. Yet the government never altered its stance of only reluctantly engaging in corporate governance. Why wouldn't this role of monitoring risk extend to other areas beyond executive compensation and what and who determined which significant decisions the government was consulted on?

Other countries have more robust and transparent approaches to public equity stakes. European governments have taken equity stakes in their emergency interventions. In Germany, the federal government took a twenty five percent stake in Lufthansa as part of its pandemic response (Mazzucato 2022). In France, the French government spent EUR 4 billion to bail out AirFrance, but included climate-oriented conditions as a condition of the stake (though they did not have the kinds of enforcement mechanisms necessary to ensure full compliance) (Government Shareholding Agency 2022; Mazzucato 2022). “Golden shares”--a type of public equity stake with special governance authority beyond its relative weight--have been used by European governments in the privatization of previously public entities, for example in the U.K. (Backer 2008).[13] Golden shares enabled the U.K. government to keep essentially veto power over core entity decisions, like mergers and acquisitions, as a hedge against foreign government control. While global examples of equity stakes, state holding companies and even sovereign wealth funds can provide useful insights, the U.S. corporate governance regime, corporate and financial laws, and state investment capacity are uniquely challenging. The next section will explore policy design considerations that arise in the U.S. context.

[13] Backer (2008) discusses the "Golden Shares" decisions made by the European Court of Justice from 2002-2007, discussing the choice of law implications of states participating in markets.

3. Public Equity Stakes in U.S. Economic Policymaking: Policy Design Considerations

Public equity stakes should be designed so that their structure best supports the public interest goals of industrial policy making. At this time in the United States, industrial policy is focused on a combination of decarbonization of the economy; national security and re-shoring of critical goods and services production; and good jobs creation. A public equity stake in a private company would mean that the public would have rights in the corporate governance process of that company, just as such a financial investment does for private financiers.[14] The effects of public investment in private companies can never be predicted with certainty--by its nature, the innovation process is full of risk. A public equity stake would function differently from a loan or grant in that it would enable the public to remain involved in the key choice points as private companies produce and innovate when a public investment has been made, making it possible--though not certain--that the public stakes contribute to the kinds of organizational capabilities that companies need to produce, rather than extractive corporate practices. A public equity stake gives the public a meaningful way to continue to engage with companies and projects that have been deemed in the public interest such that they are worth public investment.

General Motors (GM) gives us one counterfactual to think concretely about the effects of public equity stakes. The government could have stayed involved as an active shareholder promoting the public interest in the electric vehicles transition if it had taken and held a public equity stake since its bailout of GM during the financial crisis.. The federal government became the majority shareholder in GM during the collapse (total bailouts to GM totalled $51 billion), and despite its enormous commitment to the company and its employees, sold the shares at a loss of $11 billion. By 2019, GM announced major closures[15] despite robust profits. If the federal government had held onto its stake throughout the decade, it could have had a seat at the internal table for such discussions. GM has continued to spend billions of dollars on stock buybacks throughout the decade even while its efforts to transition to electric vehicles proceeded slowly. Now, of course,GM the recipient of federal investment through the IRA to spur the transition to electric vehicles. Yet despite historic gains by the UAW in the recent strike, GM announced that it would spend $10 billion on stock buybacks in November 2023 to bolster its share price while reducing overall investment in electric vehicles.

Just as private companies have a wide range of options in terms of how they structure and sell equity to private financial institutions, there are options for designing public equity stakes. Public equity

[14] The government is "authorized to purchase, hold, and invest in securities." (https://www.law.cornell.edu/uscode/text/15/77r-1).

[15] The announcement of plant closures made its stock price soar, in a clear example of the lack of a focus on production in the logic of shareholder primacy.

stakes could be structured such that the federal government receives a variable financial return on an investment; could enable involvement in governance, including the ability to veto certain kinds of company actions; or could be accompanied by both economic and governance rights. This section outlines the policy design considerations that must be considered when designing public equity stakes. First, I describe the potential of "golden shares," a unique financial instrument that could grant the type of public interest-oriented stake that is being proposed here. Then, I consider specific questions that arise whether or not the public equity stake is a golden share--for example, how should stakes be valued? How should voting rights be constructed and carried out? What kinds of economic benefits should the stake earn and where should those benefits go? The purpose is not to suggest that there is one design for all public equity stakes that is best, but rather to lay out the choice points in order to encourage further discussion of this industrial policy tool.

"Golden Shares:" An Institutional Vehicle for Public Equity Stakes

A "golden share" is a type of share with special governance authority that is well-suited to public engagement in corporate governance. Golden shares have been extensively used during the privatization of previously public entities in the U.K. After the sale of the state owned entity, the government held onto a certain "golden share" even as private stockholders came to hold the normal shares of the newly privatized business. Golden shares enabled the U.K. government to retain veto power over core entity decisions, like mergers and acquisitions, as a hedge against foreign government control (Backer 2008). Golden shares are not common in the United States, though they are not prohibited under Delaware corporate law.

Professor Saule Omarova has written extensively about golden shares as a way to ensure that the government has "direct but conditional management rights" in financial crises, as an alternative to the bailouts that the U.S. government has practiced in recent moments of turmoil in financial markets. In "Bank Governance and Systemic Stability: The Golden Share Approach," Omarova argues that due to the structural incentives of private finance to create systemic risk and finance's status as a franchisee of public power, perpetual public equity stakes in the form of a golden share create a failsafe mechanism so that the federal government has perpetual representation on the board of directors of financial institutions (Omarova 2016)[16]. She proposes that federal legislation require all financial institutions to issue a single golden share that would not have economic value but would "create a powerful organizational node of public-interest-driven management, which would operate as a dynamic and flexible internal "emergency brake" on individual banks' activities presenting significant systemic stability concerns" (Omarova 2016, p. 1032). Though golden shares

[16] Omarova 2016: "The main operative provision of the federal statute establishing the new regime will mandate issuance by each "covered entity" of a single share of a special class—"state golden share" or "special government share" (in either case, SGS)—to be beneficially and legally owned, exclusively and at all times, by the federal government in its capacity as the "SGS Holder."

are generally not controlling, she proposes that the statute delineate key decisions that the golden shares holder has veto power over.

Omarova's proposal for a National Investment Authority (NIA) includes public equity stakes mainly as a form of crisis response, though not necessarily exclusively as golden shares (Omarova 2022). The NIA's bailout manager would have the power to take equity stakes in corporations receiving federal assistance and could engage in restructuring to minimize job losses and reduce financial stability concerns. The broader purpose of the NIA, to "mobilize private capital to rebuild America's obsolete public infrastructure," would utilize the unique capacities of the federal government to increase private investment for infrastructure that has a public purpose. The National Capital Management Corporation--"Nicky Mac"-- would act as the public equity stakeholder in the projects enabled by the NIA, while "serv[ing] as an active tool for ensuring public representation and participation in economic decision making with respect to projects it finances," (Omarova 2022, p. 18). Nicky Mac would sponsor its own funds for "Critical Public Infrastructure Assets," and serve as the public asset manager for public equity stakes. During a crisis, the NCMC would be the designated shareholder for any entity that receives federal government assistance. The NIA would specifically have a bailout function so that in crises, it not only provides financial support but takes equity stakes "in near-bankrupt firms and reorganize[s] them on a new, environmentally safe technological basis, while preventing mass layoffs," (Omarova 2022, p. 19). While the proposals made in this paper do not envision public equity stakes as limited to one agency or solely for the purposes of crisis management or public infrastructure, the NIA and Nicky Mac proposals provide a useful framework for envisioning how public equity stakes could be organized.

Varieties of Stock Issuance

Golden shares are not the only form of stock that can be issued and purchased by the government. Under Delaware General Corporation Law §151, boards of directors are authorized to issue multiple series of preferred stock that have various terms (Delaware General Corporation Law Title 8, Section 151(a) (2010). This authority, known as "blank check authority," simplifies the process of issuing preferred stock so that the corporation's charter does not need to be amended and shareholders do not need to authorize the issuance of the new class of stock. While not all blank check authorizations are the same because they can be specified by a corporation's charter with specific terms, they can permit the board to authorize classes of preferred stock that grant voting rights or are non-voting stock[17]. The board is generally also authorized to determine terms describing the number of shares; dividend, redemption, and conversion rights, and rights upon the dissolution of the company. Individualcharters can grant significant additional discretion to the board: for example, Citigroup's charter authorized the board to determine "[a]ny other relative,

[17] However, if the charter does not specifically include the ability to issue a class of preferred stock with voting rights under blank check authority, the Delaware courts have found that "generalized text in a blank check charter provision was insufficient to grant the board of directors authority to establish voting powers in designating a series of preferred stock under Delaware law," (*Waggoner v. Laster*, 581 A.2d 1127 (Del. 1990) cited in (Heminway 2010, p. 1493).

participating, optional or other special rights, qualifications, limitations or restrictions of that series," (Heminway 2010, p. 1494). Assuming that the relevant corporation for a public equity stake investment has a general blank check authorization, the preferred shares can be issued to be purchased by the governmental entity, and the terms of the class of stock can include voting rights.[18]

Preferred stock "is quintessentially a matter of contract," (Buxbaum 1985). The relative balance of bargaining power between the corporation and the government in determining the terms of a preferred stock issuance will depend on the reason for the investment. During the financial crisis, the situation for financial and auto companies was so dire that they were willing to accept otherwise unacceptable terms, allowing the government to engage in regulation by deal. Preferred stock is distinct from common stock precisely because of its flexibility as a financial instrument and because "both equity-oriented and debt-like terms can be combined in the same instrument..seemingly infinite possibilities for combinations and contents of provisions exist," (Heminway 2010, p. 1499). This flexibility means that negotiations can include rights for a certain series of preferred shares to have special voting rights on issues such as the election of a "watchdog" director, as the AIG Series D class did, in the event of a dividend arrearage (i.e., when a dividend payments is expected for preferred shareholders but is not paid because of lack of financial capacity). In order for the federal government to not leave these terms subject to negotiation, federal law would need to specify the terms for any class of shares issued for which the federal government was the sole purchaser.

Participation: Board Seats, Voting Rights and Reforming Fiduciary Duties

In previous bailouts, public equity stakes have taken the form of both voting and non-voting shares. For example, the federal government purchased $20 billion of preferred stock in Bank of America and Citigroup in 2008 because the stock could be issued without shareholder approval and could be construed to have debt-like features. For example, the stock would be higher on the bankruptcy priority ladder than common shares (Heminway 2010). At the same time, the Treasury Department acquired a 79.9 percent voting interest in AIG in September 2008. Because the government was engaged in "regulation by deal"--creating individual contracts with each company using the dealmaking ethos of the private sector rather than taking a systemic approach-- without a consistent well-developed strategy (in the midst of a generational crisis), the distinction between which stakes granted voting rights and which did not may not have been well-specified (Davidoff and Zaring 2009)[19].

In order to meet the goals of a proactive industrial policy, public equity stakes should be voting shares, and should enable participation rights for the holder of the shares. Public equity stakes could entail representation on the board of directors by a representative of the governmental entity

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[18] Corporations with stock offered on a stock exchange also may need stock exchange authorization to issue and sell preferred stock.

[19] As Davidoff and Zaring point out, the public policymakers of the time, starting with Secretary Paulson, had been leading dealmarkers in the private sector before coming into public office. Paulson had been the CEO of Goldman Sachs.

holding the share. This would require the board member to have a fiduciary duty to the public purpose inherent in the public investment that prompted the stake, rather than to a company's shareholders, as is the norm under shareholder primacy (Palladino and Alexander 2021). Under the current interpretation of Delaware corporate law, directors have a duty of care and loyalty that runs to shareholders, which means any corporate decisions must have an arguable direct relationship to increasing the value of corporate shares (Strine Jr 2021). However, a newer form of corporate governance--benefit corporations-- enables directors to consider the impacts of corporate decisions on all stakeholders.[20]

Federal law could specify that the fiduciary duties of a director holding a public equity stake can make decisions based on the public interest. The proposed Accountable Capitalism Act[21], would create a federal license for large corporations, in contrast to today's state based registration. All corporations that fall within the Act's purview would require its directors to adhere to a stakeholder-oriented fiduciary duty (Palladino 2021b). A federal statute could similarly specify that the duties of care and loyalty-- the legally binding fiduciary duties-- that all directors have run to the public interest when a director is representing a public equity stake. Boards set corporate priorities, including on how to allocate corporate funds between uses that improve productivity like investment in a well-paid workforce and research and development, versus increasing executive compensation and authorizing stock buyback programs. Publicly held equity would give the public interest a role in in board discussions can meaningfully impact the productive potential of such businesses[22].

In most cases, the public equity stake will not be a majority stake, and so the public interest director will need to engage with other directors to ensure that decisions are made in the public interest[23]. A large volume of research has shown the benefits of worker participation on corporate boards, which is the norm in Germany, Europe's dominant industrial economy (Palladino 2021a). Even when workers do not have a majority stake, their presence in board discussions brings in a critical perspective that is distinct from company outsiders (the majority of directors are corporate leaders from other companies, and boards are largely self-perpetuating entities) (Diamond 2019)[24]. In other work, I have proposed creating employee equity funds, in which company employees hold a minority stake (twenty percent) of corporate equity to disrupt shareholder primacy and engage employees in corporate governance (Palladino 2021c). Holders of minority stakes vote on major corporate transactions like advisory 'Say on Pay' votes, on director elections, and on shareholder proposals. Another area where participation in board decision-making can be an important role for the holder

[20] "Benefit corporations are a form of corporate governance and legal structure that enables companies to commit to — and be held accountable for — considering the impacts of their decisions on all stakeholders rather than just their shareholders. In the last decade, these statutes have been enacted in 38 U.S. states and in four other countries, with broad bipartisan support. More than 10,000 benefit corporations now exist." (Kassoy et al. 2020)p. 7.

[21] https://www.govinfo.gov/app/details/BILLS-116s3215is

[22] For more background on the fiduciary duties of corporate boards under shareholder primacy and recommended policy reforms, see Palladino 2021b.

[23] Elsewhere, I have written about the proposal for worker representation on corporate boards of directors, and the challenges when the worker-board member is in a minority (Palladino 2021a).

[24] For more background on studies examining the impacts of worker representation on boards in Europe, see Palladino 2021a.

of a public equity stake is when the company is contemplating a merger or acquisition. The federal government played a critical role during the financial crisis in negotiating two mergers: of Bear Stearns to JPMorgran and of Wachovia by Wells Fargo. The public equity stake should enable the representative of that stake to vote on such decisions as any other institutional shareholder would.

Lessons from crisis management have bearing on how we might approach the conduct of industrial policy. Industrial policy is undertaken to shape markets in the direction that the government prioritizes (Juhasz, Rodrik & Lane 2023). For the Biden Administration, the focus on decarbonization should not be to the exclusion of other crucial public policy goals. Private companies receiving public investment should have high accountability standards for labor rights, environmental impacts, and general community benefit. For example, given the low baseline of labor rights protections in U.S. labor law, public investments are a chance to ensure that workers' freedom of association is respected and that unionized suppliers and contractors are given preferences (Harris 2022; Harris 2023). Yet, companies are often able to evade even the minimal commitments that they make when receiving the investment because enforcement is scarce and complex. Political challenges can make standards difficult to pass through Congress. For example, many of the standards advocated for in the initial phases of the Inflation Reduction Act did not make it into the final legislation. Maintaining a public equity stake enables the public an ongoing role in setting high-road standards for company behavior and the ability to monitor how companies are complying with those standards.

Economic Rights

The goal of the public equity stakes is not to replicate the dynamics of shareholder primacy for the public sector: i.e., with the shareholder focused solely on asset appreciation often as quickly as possible. With participation rights, the public equity holder can engage in board-level decision-making over dividends and other corporate financial decisions. Dividends are income payments made to holders of shares, but preferred stock can have differential dividend rights. During the financial crisis, preferred stock issued by AIG included the provision that dividends were payable at various specified rates and times (Heminway 2010, p. 1503). In terms of dividends, one option is to structure the public equity stake as any other stake would be structured, so that the government earns the capital gains from stock price appreciation and the income from authorized dividends. The government would then also take the same level of risk of loss as any other shareholder. Capital gains would be realized if and when shares are converted to common stock and sold or repurchased by the company. Of course, when and how shares are sold should be determined based on the public's interest in the equity stake continuing to be held, beyond asset appreciation purposes.

Timing and Sale of Public Equity Stakes

Should public equity stakes be time-limited? If they are time-limited, what happens when they are sold? In the financial crisis, the government's goal was to take stakes that it would return to the company as quickly as possible, even if that meant financial loss, as was the case with GM. Golden shares could be issued as perpetual stakes with management rights that are conditional on certain firm triggers, but because they have been used in privatization or crises contexts, they have not been contemplated as enabling engagement based on public interest goals. They could be issued for a length of time commensurate with the purpose of the industrial policy program, but a time limit can reduce the bargaining power that the government's representative has inside the company.

The government can negotiate for preferred stock that can be converted to common stock at a discrete time or at the discretion of the government, in order to wind down the stake.[25] For preferred stock, conversion to common stock can be contemplated in the initial issuance, though this may require increased authorization by shareholders or an amendment to the certificate of corporation, as was the case in the crisis-era issuance of AIG preferred stock that was convertible to common stock (Heminway 2010). Conversion rights offer the purchaser of preferred stock the right to sell common stock on the open market. Another option is to specify that the public equity stake can only be repurchased by the company itself, so that there is an option to wind down the shares, but the shares do not convert to common stock that has a dilutive effect on outstanding equity.

Institutional Structure: A Public Asset Manager

How do public equity stakes fit into the institutional structure of U.S. economic policy? State holding companies globally have been how public equity stakes have been managed, and in the wake of the pandemic, many countries increased their use of such public structures to stabilize private companies (Macfarlane and Gasperin 2020). For example, the Italian government committed 44 billion euros to its state-owned investment bank for equity investments to Italian companies struggling during the pandemic. In the UK, the Labour Party recently proposed a National Wealth Fund that could hold equity stakes[26]. "Under Labour's plan, the proposed NWF would be capitalised with an initial £8 billion, taking public stakes in energy and climate investments including eight new battery factories, six clean steel plants and nine renewable-ready ports" (Brusseler 2023).

The French "Government Shareholding Agency" fulfills the institutional role of managing public equity stakes within the French Ministry of Economics and Finance. In 2014, the agency clarified its four key objectives: "protecting sovereign sectors, having resilient businesses that meet the country's basic needs, developing and consolidating the sectors and industries that drive economic growth, and taking ad-hoc action, in compliance with European rules, to bail out companies when their

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[25] "Golden shares" are ineligible for such a treatment.

[26] There are also small stakes that could be used to create the fund: ""The state still holds bits and pieces like shares in banks which were nationalised in 2008; that could be refashioned as the first piece of a wealth fund." (Cohen 2022)

failure could lead to systemic risks." (Government Shareholding Agency 2022) Its portfolio includes leading French companies such as Renault and Air France. A 2014 ordinance clarified the rules regarding government directors in order to ensure that the public equity stakeholder "has a real influence on the company that is at least equal to that of a private-sector shareholder." (GSA 2022, p. 21). Because France also requires employee representation on corporate boards both to represent workers and to represent employee equity funds (when they own at least three percent of shares), the inclusion of a public representative makes the boards truly multi-stakeholder (Ginglinger 2011).

In the United States, the federal government should establish a public asset manager to serve as the institutional holder of public equity stakes (Palladino 2023)[27]. This proposal is similar to Omarova's proposal for a National Capital Management Corporation (NCMC or "Nicky Mac") entity to be established as part of the National Investment Authority, though with the key distinction that decision-making over in what sectors and companies to take public equity stakes would remain in other agencies within the federal government (a public asset manager would function alongside these agencies to carry out the goals of industrial policy but would not become the sole body responsible for coordination of public and private investment within the federal government). Under Omarova's proposal, Nicky Mac would serve as the "designated holder and manager of the Federal Government's Equity Stakes," (Omarova 2022, p. 35). Feygin and Gilman (2020) argue that a U.S. National Endowment could hold the equity stakes that the government takes as a result of crisis management or industrial policymaking (Feygin and Gilman 2020). As in France, the public asset manager could be housed directly within the Treasury Department or established as an independent agency. The OECD has issued Guidelines on Corporate Governance of State-Owned Enterprises that can provide a framework for U.S. policymakers to adapt to U.S. corporate and financial law.

Private shareholders may (and likely will) raise objections if the federal government takes an equity stake. For example, the federal government's bailout of AIG led to lawsuits by private shareholders that the equity was issued at too low a valuation, negatively impacting the shares held by private financial institutions (the judge found in a 2015 lawsuit, brought by ex-AIG CEO Maurice Greenberg, that the Federal Reserve had demanded too much equity as a condition of its bailout of AIG, but that shareholders had not been damaged and awarded no damages). There are also procedural questions regarding how judicial and administrative review of the government-as-shareholder should occur. Legal scholars Marcel Kahan and Edward Rock (2010) reviewed the thorny issues raised during the financial crisis and concluded that, pragmatically, Delaware courts should not take the claims of private shareholders against the federal government-as-shareholder as they normally would with two private shareholder parties because the federal government has sovereign immunity and cannot be sued in state court[28] (Kahan and Rock

[27] In "Establishing a public option for asset management in the United States," I have written about the need for a public option for asset management to serve public pension funds, who currently have their assets managed by private asset management financial institutions. Managing public equity stakes is a separate but complementary function that a public asset manager should play. (Palladino 2023).

[28] Of course, this raises the question of why continue to maintain state-level corporate charters in the first place, rather than transitioning to federal chartering. See discussion of this topic in (Palladino 2021b). See also (Heminway 2021).

2010). The issues that arise differ if the government holds a controlling versus non-controlling stake, as under Delaware law, the controlling shareholder has fiduciary duties to non-controlling shareholders.

4. State and Sectoral Considerations

Sub-National Public Equity Stakes

Where the federal government will not take public equity stakes, what are the options for state and municipal governments to do so? States engage heavily in economic development through tax breaks, which are often motivated by promises of new good jobs creation promises that are later broken (see Good Jobs First's Subsidy Tracker database for extensive documentation of economic development subsidies). For example, Michigan awarded a $1 billion subsidy to GM in tax incentives for new electric cars, which would create an estimated 4,000 new jobs. An analysis by Good Jobs First found that it was unlikely that more than $300 million of the tax revenue would come back to state coffers even if all the promised jobs were created. Michigan engages in such tax breaks because the auto sector has been relocating its manufacturing capacity outside of its historical home in Detroit. More broadly, this has created a widespread race to the bottom as states and localities compete with each other to keep corporations located in their jurisdiction, at a significant cost to public finance. Taking a public equity stake instead of tax breaks that have minimal or difficult to enforce clawback provisions can make it more likely that public benefits will actually accrue to the location granting the subsidy.

Of course, a state holding an equity stake in a multinational corporation does not mean that the state will have particular corporate governance rights vis a vis the corporation's activities within its state: it would engage as any other shareholder in the entire business. However, it would have more of an official voice inside the corporation than it does when granting tax subsidies, which are usually accompanied by a commitment by the company to invest locally, but often without accountability if the commitment is broken.

States and other subnational governments can overcome some of their limitations by engaging in project finance agreements with private corporations. For example, a state can take part ownership of a standard limited liability corporation, which would be the part owner of a new development such as a lithium battery factory. From the point of view of the project's capital stack, the state would be contributing equity finance, which could also be supplemented with other instruments such as mezzanine loans. Such arrangements have domestic and international precedents. For example, the Green Bank of Connecticut established a Delaware-based LLC with tax-equity investors to finance its low-income, distributed solar loan fund. Investissement Québec, the Province of Quebec's equity investment firm, helped develop Bombardier's line of commercial aircraft through an equity investment in a joint holding company. Later, Investissement Québec

helped structure a buyout of the project from Airbus, securing a 25% share in a new joint venture with the multinational to produce the A220 in Bombardier's former Montreal factory and expanding production to facilities in Alabama.

One challenge is the state constitutionality of state entities holding corporate equities. For example, California's state constitution prohibits state entities outside of its pension funds from holding equity[29]. Another challenge is the capacity at the state level to engage in the corporate governance that a stake would create. Public pension funds currently outsource much of their asset management to private companies like Blackrock. A public asset manager would likely need to have state-level capacities in order for states and municipalities to take stakes and be able to sufficiently engage in order to ensure corporations meet the public interest goals of the public investment.

Sectoral Considerations

There are certain sectors of the economy that should be fully publicly run. Physical utilities --water, energy services, broadband-- are one sector where the historical record shows how effective public ownership can be, and which have been publicly regulated for a century (Novak 2017). Recent work from the Climate & Community Project advocates for the establishment of publicly and cooperatively owned electric utilities, in contrast to the investor-owned utilities in which shareholder primacy is holding back the key steps needed for the energy transition because corporate boards prioritize shareholders payments over the risky long-term investments necessary for decarbonization (Hanna, Bozuwa, and Rao 2022; Lusiani 2022). According to research by Niko Lusiani, "electric utility companies have passed over $250 billion on to shareholders over the past decade--that is, over 86 percent of the industry's earnings distributed directly out to shareholders, mostly in cash dividend payments," (Lusiani 2022, p. 1). Still, the political and economic challenges of making privately-held utilities public are significant, and one way to bring the public interest into this crucial sector would be through public equity stakes in utilities that remain privately held. A public equity stake that granted a public interest director a seat on the board, and significant voting power through the size of the stake, could alter board-level decision making about the allocation of profits into the production process (that could support the renewable energy transition) and shareholder payments.

As discussed in detail above, much of the history of public equity stakes in the United States concerns stakes taken during financial crises (Davidoff and Zaring 2009). Financial institutions are crucial to the rest of the goods-and-services economy and prone to instability, which has meant recurrent economic crises that stem from the financial sector. Though bright-line regulation of financial institutions is necessary, equity stakes can enable the government to engage in the corporate governance of financial firms, whose risk-taking uniquely impacts the broader economy.

[29] https://law.justia.com/constitution/california/article-xvi/section-17/

Another consideration of public equity stakes is whether stakes should be taken in early-stage ventures as well as being part of government-market relationships with large established businesses. Public research has been foundational across sectors (Mazzucato 2022). Public equity stakes could serve as public venture capital in startup businesses that are aligned with the goals of industrial policy. As Milberg and Shapiro (2013) argue, innovation is especially dependent on equity financing, rather than loans, especially when companies do not have retained earnings to rely on (Milberg and Shapiro 2013). Innovative products and production processes are necessarily new and untried, meaning that a bank lender does not have a history of success to make an informed judgment on the ability of the potential borrower to repay the loan. In private markets, this is why the venture capital sector has been central to much of the innovations that have powered the growth of new sectors in recent decades (Mallaby 2022). Yet private venture capital will act in its own financial interest rather than pursuing innovations that have social benefit. As described by Sebastian Mallaby in *The Power Law,* while venture capital firms have had in many cases the entrepreneurial background to take risks and support the product development in today's leading software giants, their orientation towards private financial gain has left innovations that would have broader social benefit unaddressed (Mallaby 2022).

Public venture capital could take a different approach. By taking equity stakes in early-stage companies that have social benefit, the federal government could help to sustain risk-taking that can have positively impact industrial policy goals. This approach to seed funding new innovations to meet national security needs has been underway at the CIA's In-Q-Tel (IQT) for over two decades. In the late 19989s, the CIA realized that many off the shelf, commercial software products were not well suited for its and other government agency's needs. In response, it founded a venture capital fund aimed at working with the agency to identify it's needs and invest in early stage software companies whose products had the potential to meet those requirements. IQT not only took equity stakes (often in the form of warrants), focusing on "visionary, commercially focused companies but worked its companies to make sure that their products would have a ready market in the CIA and other agencies when they reached viability. The implicit purchase guaranteed that came with ICT investments crowded in other venture capital allowing the fund to eventually make a profit and recycle its funding to new projects. IQT's purpose of "innovation with a mission" is one that could be replicated for other public interest goals beyond those housed within the national intelligence community.

5. Conclusion: Towards Implementing Public Equity Stakes

This article considers the policy design questions of U.S. public equity stakes as a proactive public policy in the 2020s. I examine the potential impact of a public equity stake in private companies as a strategy within U.S. industrial policy. The purpose is to prevent public funds to ensure that the public interest embedded in industrial policy is actually met. Public equity stakes in private

corporations could bring about a major change to the current dynamics of corporate governance and thus the productive potential of U.S. innovative enterprises, but to date, the federal government has been more interested in using such stakes only in moments of crises and in relinquishing them as quickly as possible. Despite public equity stakes being held by the federal government in both of the last two economic crises and the massive public investment currently underway under the rubric of economic policy making, there is not sufficient research on whether and how such stakes should best be implemented in the American context of the 2020s in order to meet their transformative potential. While the options raised here are necessarily incomplete, the hope is that this motivates further exploration of how public equity stakes could usefully serve economic resilience and innovation moving forward.

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