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Toward a discursive approach to growth models: social blocs in the politics of digital transformation

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ABSTRACT

The growth models perspective analyzes the role of social blocs in crafting countries' economic policies, but its treatment of business power as purely structural prevents it from addressing an important question in the politics of digital transformation: How have new sectors with miniscule economic footprints been able to influence economic policy? This article explores how tech and venture capital successfully lobbied for financial liberalization at the beginning of digital transformation in the United States. The article argues that explaining the role of social blocs in digital transformation requires incorporating discourse analysis and develops a conceptual framework around three causal mechanisms in the dynamics of social blocs: formation, influence, and endurance. This framework contributes to theory development in the growth models perspective and improves our understanding of the character of business power in digital transformation.

KEYWORDS

Digital transformation; discourse; growth models; social blocs

Introduction

Silicon Valley has long been the target of emulation. In 1960, Charles de Gaulle visited Northern California, returning to France with plans to develop a domestic tech sector (O'Mara, 2019, p. 49). By 2017, every country in the Organization for Economic Cooperation and Development (OECD) promoted economic growth through 'digital transformation' (OECD, 2017b, p. 11), and hundreds of regions have named themselves after Silicon Valley, from 'Silicon Fen' in Cambridge to 'Silicon Mountain' in Cameroon. This is not the first time that countries around the world have pursued a common project of economic adjustment, but, in previous periods, the path of reform often followed the interests of economically powerful sectors (Gourevitch, 1986; Katzenstein, 1985; Zysman, 1984). In the digital transformation, however, the path of policy development seems to be dictated less by the heft of existing sectors than by the promise of new ones, such as information and communications technology, or 'tech', and entrepreneurial finance, especially venture capital (VC).¹ In the vast majority of countries, neither tech nor VC

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has a significant economic footprint. How have these new sectors influenced the direction of economic policy in digital transformation?

Despite recent progress in analyzing the role of business in economic policy, the character of business power in digital transformation remains a puzzle. In particular, how have tech and VC exercised such considerable power over the path of capitalist development? Countries around the world with economies as diverse as Denmark, Finland, Germany, Ireland, Israel, and Taiwan have adopted what has become known as the ‘Silicon Valley model’, which revolves around a causal discourse that links financial liberalization to increased investment in the tech sector to drive economic growth (Breznitz, 2007; Casper, 2007; Ornston, 2012).² This causal discourse defines the Silicon Valley model wherever it appears, even if countries implement it differently, with some reducing capital gains taxes while others seek to direct investment more strategically (Klingler-Vidra, 2018). The growth models perspective provides a promising perspective for explaining this pattern with its concept of social blocs, whereby sectors with complementary interests band together to shape economic policy (Baccaro & Pontusson, 2016, p. 200). So far, social blocs have been conceived as exercising a type of power that is structural and historically anchored: systemically relevant sectors, those that contribute to GDP and employment, are likely to see economic policy meet their interests. The sectors that constitute the Silicon Valley model, however, exhibit a strikingly different profile.

Even after decades of expansion, tech made up no more than 10 percent of GDP in any OECD country in the late 2010s, and often significantly less: in the European Union, tech constitutes less than 6 percent of GDP, while manufacturing is still at 16 percent (OECD, 2019, p. 76, 2020a). Across the OECD, tech represents less than 6 percent of employment, and hovers around 4 percent in the European Union (Eurostat, 2019; OECD, 2017c, p. 43). Venture capital, the other core sector of the Silicon Valley model, also lacks systemic relevance. Across the OECD, VC represents less than 0.05 percent of GDP, and the only country with more than 1000 firms backed by VC is the United States (OECD, 2017a, pp. 124, 128). Despite their miniscule footprints, tech and VC have exerted impressive influence over economic policy in the last decades, leading to the near universal adoption of national strategies for digital transformation based on the Silicon Valley model. Explaining why these sectors are so powerful requires advancing our understanding of the dynamics of social blocs. This article does so by addressing three questions raised by the growth models perspective: (1) How do social blocs form? (2) How do social blocs influence policy? (3) How do social blocs endure?

In addressing these questions, this article contributes to research on the character of business power in the current era of production (Brazys & Regan, 2017; Culpepper & Reinke, 2014; Culpepper & Thelen, 2020), particularly when it comes to the role of discourse (Bell & Hindmoor, 2014; Fuchs, 2007). Despite the vast amount of research on business power, the growth models perspective is distinctive because its concept of social blocs approaches business power as more than discrete acts of influence. Instead, reflecting the observation that even structurally powerful sectors, such as finance, rely on coalitions in order to influence policy (Kalaitzake, 2019; Pagliari & Young, 2014), the growth models perspective shows that business power is anchored in relationships among different sectors, but it has largely treated these relationships as purely structural. This article draws on a case study

of the origins of the Silicon Valley model in order to offer an account of business power that revolves around discourse rather than structure, and identifies three discursive components essential to the dynamics of social blocs. Analyzing the causal properties of growth models discourse, the article develops a framework to explain why tech and VC were able to influence the origins of the Silicon Valley model. This framework may prove useful to explaining the path of digital transformation in other countries in the current era.

The article proceeds in five parts. The second section shows how purely structural accounts of social blocs cannot fully explain the character of business power in digital transformation, followed by the third section, which argues that these gaps can be bridged by incorporating discourse analysis. The fourth section outlines the case selection strategy and methodological approach, which relies on theoretical-revision process tracing, and introduces the case study of capital gains tax reductions in the 1970s United States. While we observe similar paths of policy development across many countries currently pursuing digital transformation, focusing on a single case study enables elucidating the importance of discourse to three causal mechanisms through which new sectors acquire, exercise, and maintain power into the current era. Section five traces each mechanism through which tech and VC (a) formed a social bloc, (b) influenced policy, and (c) endured beyond initial advocacy for reducing capital gains taxes in the 1970s. The final section concludes by proposing paths for future research.

The politics of digital transformation

The near universal adoption of national strategies to promote digital transformation has attracted significant attention in social science. Three approaches stand out. The first treats digital transformation as technological change, and seeks to explain its political consequences, especially economic inequality. The second focuses on policy diffusion. The third is the growth models perspective, which treats digital transformation as economic adjustment and seeks to explain different paths of development. Building on a robust research tradition in comparative political economy to highlight the centrality of business power in guiding national paths of economic adjustment, the latter provides the most promising framework for explaining the politics of digital transformation. Nonetheless, its notion of business power must be updated in order to capture how new sectors, such as tech and VC, exercise power. Doing so is necessary for explaining the origins of the policies underlying digital transformation.

Digital transformation has intensified economic inequality, but explaining this development primarily in terms of technology tends to overlook the role of business in guiding the path of technological change, and thus leaves out critical aspects of the politics of digital transformation. Automation certainly shapes labor market dynamics and can increase inequalities in income and wealth, and many scholars highlight the importance of electoral politics in mediating these developments (Boix, 2019; Hope & Martelli, 2019; Iversen & Soskice, 2019; Kurer & Palier, 2019; Thewissen & Rueda, 2019), but these approaches often treat technological change as exogenous, and thus tread perilously close to technological determinism. The peril inheres in overlooking how the path of technological change is endogenous to the political actions of certain actors, particularly firms and sectors that

influence economic policy to promote specific technologies. Focusing primarily on elections, these approaches struggle to explain the politics of economic policy, which are typically addressed in the realm of ‘quiet politics’, where business power, rather than voter behavior, is the deciding factor (Culpepper, 2011).

Research on policy diffusion sheds light on the role of business in influencing the path of digital transformation, but lacks a generalizable account of the character of business power in the current era of production. Countries around the world have emulated the Silicon Valley model in their attempts to drive economic growth, and domestic sectors invariably play an important role in shaping which policies their countries adopt and how those policies are implemented (Breznitz, 2007; Klingler-Vidra, 2018; Ornston, 2012). These accounts excel at highlighting the contextual factors that lead to different patterns of emulation in different countries, but given that their focus is policy diffusion, rather than business power per se, it is difficult to piece together disparate observations of business’s role into a generalizable framework that could explain how business exercises power in digital transformation.

Approaching the politics of digital transformation by focusing directly on business power reflects a long tradition of studying the role of producer coalitions in shaping economic policy. The growth models perspective extends this tradition by treating digital transformation as economic adjustment, which, as in previous eras, is guided by different patterns of business power. Classifying national economies primarily in terms of their demand regimes, the growth models perspective distinguishes between countries where growth is driven primarily by exports and where it is driven primarily by domestic consumption (Baccaro & Pontusson, 2016, p. 176). To explain this variation, scholars refer to the power of social blocs, which are ‘coalitions of social forces, typically straddling the class divide, that can legitimately claim to represent the ‘national interest’” (Baccaro & Pontusson, 2016, p. 200). Whereas Amable and Palombarini (2009) incorporate electoral coalitions into the concept of social blocs, the growth models perspective has focused on business as the primary actor in a social bloc, and conceives of sectors as exercising ‘structural power’ to influence policy (Baccaro & Pontusson, 2019, p. 30). While the growth models theoretical perspective acknowledges the role of discourse in the dynamics of social blocs, invoking Gramsci’s concept of hegemony (Baccaro et al., 2019, p. 31; Baccaro & Pontusson, 2019, pp. 1, 18–19), empirical research has so far focused solely on structural power.

The framework of structural power in the growth models perspective underpins accounts of digital transformation in different countries, and points to three causal mechanisms essential to the dynamics of social blocs. First, Thelen (2019, p. 310) draws attention to the *formation* of social blocs. In the Netherlands, unions’ structural position vis-à-vis their ownership of massive pension funds aligned their interests with finance, leading to a coalition that supported financial liberalization and enabled shifting to a growth model based on business services. Second, Baccaro and Pontusson (2016, p. 200) focus on social blocs’ *influence* to explain variation in growth models. In the UK, finance’s systemic relevance allowed it to push for economic policies favoring its interests, while in Germany, export-oriented manufacturers steered policy in a different direction, due to their systemic relevance, represented by outsized contributions to GDP and employment. Third, Thelen (2019, p. 301) explains the *endurance* of a social bloc in Germany, whereby

export-oriented manufacturers adapted institutions in order to protect their interests. By ensuring that national policy reinforced actors' structural positions, Germany's export-oriented manufacturers were able to maintain the social bloc necessary for influencing economic policy.

The growth models perspective illustrates that countries pursue different paths in digital transformation, but also raises questions about the underlying processes of change because structural power cannot fully explain these different paths. While countries may have diverged in recent years, empirical research in the growth models perspective seems to overlook that most countries adopted very similar policies to support tech and VC. Countries across the OECD have liberalized financial regulations in order to encourage VC investment in technological innovation, including reducing capital gains taxes (O'Donovan, 2020, p. 2; Wilson & Silva, 2013), even where national models favored social protection over liberalization, as in France (Amable, 2017, pp. 29–31). Starting in the 1990s, Germany, for instance, liberalized many aspects of its financial sector, including implementing a new stock market, the *Neuer Markt*, and adjusting corporate governance regulations. Policymakers' intention was to foster the type of tech and VC firms associated with the Silicon Valley model (Adelberger, 2000; Casper, 2007; Vitols, 2001). Conceiving of business power solely in terms of structure, the growth models perspective struggles to explain why such reforms were embraced, because neither tech nor VC possessed the economic heft we would expect of such influential sectors. In Germany, for instance, the tech sector's contribution to GDP peaked in 2007 at 6.4 percent, dwarfed by manufacturing's contribution at 23 percent, while employment in tech was only 5 percent to manufacturing's 24 percent of the total workforce (Eurostat, 2020; OECD, 2020a).³ VC has had a similarly small economic footprint. Even at the peak of the dot-com boom in 2000, German VC raised little more than \$5 billion (BVK, 2001, p. 4), which was less than half of Volkswagen's profits that year (Volkswagen AG, 2000, p. 81), and fewer than 20 percent of German startups received VC funding (Vitols, 2001, p. 59).

Germany is not the only country where tech and VC lacked structural power but were still able to influence economic policy. In Ireland, for instance, economic policy shifted from supporting manufacturing to supporting tech, long before tech played a significant role in Ireland's economy. Brazys and Regan (2017, pp. 415–416) underline that the sectors driving digital transformation have different interests than the manufacturing sectors of previous eras, and their account suggests that business power in the current era is rooted in a specific causal discourse, according to which particular sets of policies will lead to economic growth. In Germany, Ireland, and other countries, the state adopted the Silicon Valley model and embraced digital transformation by liberalizing the financial sector in the hopes that doing so would spur technological innovation and thus economic growth. As the next section argues, tech and VC were able to influence economic policy in no small part by formulating the Silicon Valley model, whose causal discourse frames these sectors as driving economic growth.

Discourse and social blocs in digital transformation

While discourse has always been central to capitalism, it is critical to digital transformation due to its role in shaping expectations (Beckert, 2016; Marazzi, 2008;

Table 1. Three causal mechanisms in the dynamics of social blocs.

Causal mechanisms	Discursive components
Formation	Selection
Influence	Prediction
Endurance	Performativity

Mieszkowski, 2006; Nitzan & Bichler, 2009). Expectations are at the core of the politics of digital transformation because the embrace of technological innovation is based on the expectation that doing so will drive economic growth. In the EU, for instance, the ‘Horizon 2020’ program, which is a ‘flagship initiative aimed at securing Europe’s global competitiveness’ by allocating €80 billion to research and development, is based on the expectation that particular forms of research and development lead to technological innovations with positive economic effects (European Commission, 2013). Expectations about a particular model for driving economic growth reflect one way that business exercises power: by promulgating a causal discourse that links the national interest to the interests of a particular social bloc (Baccaro & Pontusson, 2016, p. 200). In the digital transformation, tech and VC have exercised power by framing economic growth as being driven by financial liberalization via technological innovation, according to what we now call the Silicon Valley model.

While the Silicon Valley model may have become common sense, it nonetheless has a politics, which revolve around an ‘imagined future’ (Beckert, 2016) where non-existent technologies drive economic growth after the proposed policies are adopted. When policymakers debate how to guide economic growth, they engage this and other imagined futures, which can take the form of theories, narratives, or models (Beckert, 2016, pp. 173–174). Although imagined futures take many forms, they are always constituted by causal discourse (Beckert, 2016, p. 9). Discourse about growth models represents one type of causal discourse that links a set of policies and sectors to the goal of economic growth. Just like the causal discourse that undergirds all imagined futures, growth models discourse selects specific sectors as the causes of economic growth and defines relationships across different temporalities, both predicting the future and explaining the past. Discourse is especially significant for explaining the politics of digital transformation not just because it encompasses ‘the substantive content of ideas’, but also because it captures ‘the interactive processes by which ideas are conveyed’ (Schmidt, 2008, p. 305). These interactions are one important channel through which to explain how social blocs form, influence policy, and endure.

In digital transformation, three properties of causal discourse are relevant to these essential mechanisms of social blocs, and thus to how business exercises power (see Table 1). First, while purely structural approaches to social blocs suggest that sectors’ economic positions can endow them with complementary interests leading to the formation of social blocs, a discursive approach focuses on how sectors rely on causal discourse to *select* their interests. Sectors’ locations in economic structure may endow them with complementary interests (Gourevitch, 1986; Milner, 1988), but these are not sufficient to form a social bloc because they cannot explain why actors transform an economic relationship into a political one. Articulating the selective properties of growth models discourse contributes to research on ‘coordinative discourse’ by outlining a new area where cognitive ideas

shape actors' perception of their interests and what is necessary to achieve those interests, thereby deepening our understanding of the role of discourse in forming coalitions (Béland & Cox, 2016; Fitch-Roy et al., 2020; Hay, 2011; Schmidt, 2008, p. 310).

Second, while a social bloc's contribution to economic growth is relevant to the ability of its constitutive sectors to influence policy, persuading policymakers that serving those sectors' interests will drive economic growth in the future requires engaging causal discourse's *predictive* properties. Sectors that contribute significantly to GDP and employ a significant portion of the workforce do not automatically receive policies that meet their interests (Culpepper & Reinke, 2014; Vogel, 1987). Instead, predictive discourse plays a key role in sectors' ability to credibly demonstrate to policymakers exactly how they could contribute to growth, and what could be gained by adopting their desired policies (Fairclough & Fairclough, 2012, Chapter 2; Schmidt, 2008, p. 312). In contrast to existing research that illustrates how business threatens policymakers with future costs (Bell & Hindmoor, 2014), the analysis that follows shows how the predictive properties of growth models discourse enable business to promise policymakers future benefits. Growth models discourse can thus be crucial in explaining why sectors with minimal economic footprints can influence policy.

Lastly, discourse must be viewed as supplementary to, rather than independent of, structural approaches to social blocs. This is especially evident when it comes to social blocs' endurance. Sectors are likely to extend their political coordination as long as their interests remain complementary, just as their influence over policy is likely as durable as their economic footprint. However, beginning from a situation where sectors' political coordination does not automatically follow from complementary interests, and where sectors' influence is untethered from their economic footprint, a discursive approach heightens our sensitivity to the importance of *performativity*. Growth models discourse enables actors to articulate particular causal linkages, act 'as if' those linkages were true, and in so doing, make those statements a reality, so that predictions become descriptions (Beckert, 2016, p. 186; Mackenzie, 2008). The world desired by a particular social bloc may thus become reality, illustrating the dialectical relationship between discourse and structure (Donoghue, 2018, p. 398). The growth models perspective recognizes this dialectical relationship in theory by invoking Gramsci's concept of hegemony, but it is not yet reflected in empirical research. This article makes a first step toward filling that gap.

In order to develop a more encompassing framework for making sense of business power in digital transformation, this article revisits the early days of Silicon Valley. In the 1970s US, tech and VC formed a social bloc based around what became the Silicon Valley model, which enabled political coordination by selectively articulating each sector's interests. The tech-VC bloc influenced the path of economic policy by presenting policymakers with the Silicon Valley model's predictions that serving tech's and VC's interests would drive economic growth. Acting *as if* the model were true intensified the complementarity among tech's and VC's interests, increased tech's contribution to economic growth, and, as some of its predictions became descriptions of empirical regularities, the Silicon Valley model became common sense. With legislators and the broader public believing that serving tech's and VC's interests drives economic growth, the two sectors wield enduring influence over policy. The performative properties of the Silicon Valley model

have indeed led some of its predictions to be realized, and the case study that follows shows that while structural accounts of social blocs may explain aspects of the current stage of digital transformation in the US, they must integrate discourse to explain earlier stages. The conceptual framework developed here thus holds important insights for the dynamics of social blocs in the current era in countries that have more recently adopted the Silicon Valley model, where tech and VC occupy structural positions similar to the 1970s US.

Case study: the origins of the Silicon Valley model

On November 6, 1978, President Jimmy Carter signed the Revenue Act of 1978, which reduced a number of taxes. The most significant was the cut to capital gains taxes, sponsored by Congressman William Steiger (R-WI), which reduced the highest rate from 50 percent to 28 percent. Commonly recognized as a foundational moment in the power of business in the latter half of the twentieth century (Blyth, 2002, p. 162; Martin, 1991, p. 27), the reduction of capital gains taxes marked the ‘first fruit of the supply-side movement’ (Berman & Pagnucco, 2010, p. 359), and signaled not just the growing power of business in general, but the power of Silicon Valley in particular. Financial liberalization is often viewed as a prerequisite for what became the Silicon Valley model (Janeway, 2012), but its constitutive policies are less a functional necessity than the contingent result of targeted lobbying by a social bloc composed of tech and VC (Mazzucato, 2015, p. 57).

Low capital gains taxes are by no means the only element of the Silicon Valley model (Klingler-Vidra, 2018), but the reduction of capital gains taxes in 1978 marked the first time that business formulated the Silicon Valley model, which justifies financial liberalization in terms of promoting technological innovation to drive economic growth. This causal linkage inaugurated a policy paradigm that shaped the politics of economic growth over the decades that followed in the US and beyond. Moreover, this episode saw the formation of the tech-VC bloc, which continues to guide the path of digital transformation, thus providing a useful case for examining the dynamics of social blocs. In studying the reduction of capital gains taxes in 1978, the following case study traces how the causal discourse constituting the Silicon Valley model shaped the dynamics of social blocs and thus the path of digital transformation.

The Silicon Valley model has long roots, but the reduction of capital gains taxes in 1978 marked the origins of a new era, both in terms of government policy and the relationship between tech and VC. While the US government had long supported technological innovation, its efforts in previous decades revolved around national security, rather than economic growth (Weiss, 2014, p. 6). Similarly, while programs like the Small Business Investment Company (SBIC) program encouraged risk capital to invest in new ventures, and the establishment of NASDAQ facilitated smoother trades and easier exit from venture investments, neither was framed in terms of promoting technological innovation (see, for instance, Hammer, 1971). Just as the linkage between financial liberalization, technological innovation, and economic growth did not take shape in policy until the late 1970s, tech and VC’s economic relationship did not intensify until after it had formed a social bloc to lobby for reducing capital gains taxes. Many have noted how American Research and Development Corporation (ARD)’s stake in Digital Equipment Corporation

Table 2. Percentage distribution of new venture capital deals by major product or industry.

	Percentage of total				
	July– December 1979	January– June 1979	1978	1977	1976
Computer systems and related equipment	30	37.3	21.5	16.8	19.3
Medical and scientific instruments and equipment	11	15	16.7	8.9	9.1
Energy related	15	7.5	9	13.8	5.7
Communications	9	11.2	9	6	6.8
Electronic capital equipment and components	3	1.9	7	3	3.4
Services	10	11.2	9	6	13.6
Retail trade	3	2.8	1.4	3	1.1
Agriculture	0	1.9	3.5	2	3.4
Miscellaneous manufacturing	11	6.5	18.7	26.6	29.6
Optical character recognition	2	1.9	0	4	3.4
Real estate	5	0.9	0.7	0	4.6
Food distributors and restaurants	1	1.9	3.5	9.9	NA
Total		100	100	100	100
Total number of deals	100	107	144	101	88

Source: A survey of venture capital investment, 1977–79, Brophy, David J., and Peter L. Schaefer. (Included in *Advisability of a tax reduction in 1980* effective for 1981, 1980, p. 1325.).

(DEC) in the 1940s illustrated the potential inherent in the relationship between tech and VC (Nicholas, 2019), but for decades, tech was just one of many areas where venture capitalists invested (Kenney, 2011, p. 1689). Even during the years of the SBIC, tech was not the primary target of VC investment (Kenney, 2011, p. 1695), and 1978 was the first year that the proportion of new VC deals in tech outnumbered those in manufacturing (see Table 2). While VC has become a crucial element of the US's National Innovation System, in 1976, only 13 percent of tech firms received VC funding (The President's 1978 tax reduction and reform proposals, 1978g, p. 1331).

Moreover, although both tech and VC were politically active through their sectoral associations, it was not until 1977 that they established the political coordination constitutive of the tech-VC bloc. The American Electronics Association (AEA) represented tech. Founded as the Western Electronic Manufacturers Association in 1943 by David Packard, the association changed its name to the AEA in 1978 (Saxenian, 1989, p. 33). By this point, the AEA included 900 firms in thirty-seven states, with its members employing more than one million people, primarily in designing and assembling electronics related to computers (Capital Formation, 1978, p. 5). The AEA relied on members' dues to pursue its members' interests through networking events and lobbying (Johnson, 1980, p. 46). The National Venture Capital Association (NVCA) was founded in 1973 with the goal of supporting long-term investors in early-stage firms (Kenney, 2011, p. 1707). Like the AEA, the NVCA relied on members' dues to fund its efforts (Lea, 2008, p. 88), and while it quickly established an office in Washington, D.C., reducing capital gains taxes was its first major legislative win (Kenney, 2011, p. 1707). Many accounts of Silicon Valley's history recognize *that* these two associations came together in the late 1970s to reduce capital gains taxes (Berman, 2012, p. 73; Florida & Kenney, 1992, p. 114; Lazonick, 2009, p. 73; Nicholas, 2019, p. 178; O'Mara, 2019, p. 168) but do not explain *how* they formed a social bloc, influenced policy, and endured over the following decades.

A purely structural approach to social blocs would view the reduction of capital gains taxes in 1978 as a deviant case (Gerring, 2007, p. 105). As the following case study illustrates, lobbying by tech and VC produced the policies they wanted, but not for reasons expected by purely structural approaches. First, the relative positions of tech and VC in the economy are not sufficient to explain why they formed a social bloc. Second, this bloc was not systemically relevant to the US economy, with anemic contributions to GDP and employment, leaving purely structural approaches unable to explain why they were so influential. Third, purely structural approaches cannot explain why this bloc's coordination and influence have endured over time.

The goal of the following case study is to revise the causal mechanisms underlying existing accounts of social blocs. By engaging theoretical-revision process-tracing, the case study highlights the importance of discourse as an omitted causal condition central to the dynamics of social blocs (Beach & Pedersen, 2019, p. 270). Drawing on existing theories of how discourse shapes power (e.g. Carstensen & Schmidt, 2016), the case study builds on Fairclough and Fairclough's (2010, p. 61) critical discourse analysis to emphasize that causal discourse plays a more varied role in politics than simply providing instrumental rationalization to justify policy proposals. While causal discourse's predictive properties make it an important aspect of the instrumental rationalizations that social blocs can use to influence policy development, its selective and performative properties are also critical to the dynamics of social blocs. Relying on a range of primary sources, particularly Congressional testimony, the following section demonstrates how turning to discourse helps fill gaps in purely structural accounts of digital transformation. Filling these gaps in the origins of the Silicon Valley model provides the basis for developing a conceptual framework that future scholars can apply to other cases in order to deepen our understanding of the character of business power in digital transformation.

Three mechanisms of social blocs in the Silicon Valley model

Formation of social blocs

Tech and VC formed a social bloc in May 1977, when the AEA and NVCA committed resources to construct a task force focused on reducing capital gains taxes.⁴ With the construction of the task force, the relationship between tech and VC became political, rather than just economic. This section argues that tech and VC formed a social bloc once tech adopted the causal linkages underpinning supply-side economics, which led tech to articulate its interests differently.

Made up of eleven tech executives and venture capitalists, the task force was chaired by Edwin Zschau, the CEO of a small computer firm. Zschau coordinated the task force's activities in Washington, which included organizing testimony from the AEA and the NVCA at Congressional hearings. On multiple occasions, the AEA testified together with the NVCA, who made their gratitude clear:

We in the NVCA are very much indebted to the American Electronics Association (AEA), which you heard from earlier today, and its Capital Formation Task Force for sponsoring the AEA Capital Formation Survey which documents in an authoritative manner the enormous benefits that have been derived from an economic incentive system that has

Table 3. Sources of young tech firms' equity by period of founding (1960–1975).

Founding period	Private equity in first five years		Public equity in first five years	
	Amount (thou USD)	Percent of total funding	Amount (thou USD)	Percent of total funding
1956-1960 (26 firms)	3923	61.6	2444	38.4
1961-1965 (38 firms)	7511	32.2	18017	77.2
1966-1970 (135 firms)	87648	62.5	52511	37.4
1971 – 1975 (77 firms)	31464	78.14	8802	21.86
Average		58.6		43.7

Source: Author's calculations, based on 'Capital formation survey of high-technology companies', WEMA. (Included in The president's 1978 tax reduction and reform proposals, 1978g, pp. 1333–1337).

worked superbly well. (The president's 1978 tax reduction and reform proposals, 1978c, p. 1340)

The NVCA was thankful not just for the AEA's frequent testimony to Congress, but also for their work behind the scenes, speaking to reporters, lobbying legislators and interest groups, and commissioning studies, including the survey referred to above, which both the AEA and NVCA frequently referenced during their testimony.

The AEA's previous lobbying had focused on trying to increase the prices that the Department of Defense paid firms for developing technology, with members arguing up through March 1977 that greater demand in the form of higher prices incentivized firms to invest in technological innovation (The renegotiation reform act of 1977, 1977). When they took on capital gains taxes, however, the AEA articulated its interests differently. Now, the primary issue for tech firms was not the prices of its products but access to capital. Members complained to Congress that if capital gains taxes were not reduced, the tech sector would disappear (Capital gains tax bills, 1978b, p. 278). Zschau testified that 'Risk capital investment is like the goose that lays golden eggs', but 'actions of the government which make risk capital investments less attractive can unwittingly kill the goose that lays these golden eggs' (Capital Formation, 1978, p. 11). The AEA's discourse painted tech's interests as complementary with VC's.

A purely structural approach to growth models would argue that the formation of the tech-VC bloc resulted from complementary interests, however, the AEA's own data show that economic interests are not sufficient to explain why tech formed a social bloc with VC. Emerging tech firms were more likely to rely on private sources of capital than established firms, and between 1960 and 1975, tech firms within five years of their founding turned to private sources for 58.6 percent of their capital needs (see Table 3).⁵ Across the tech sector as a whole, however, firms relied primarily on government funding in this period, with public sources making up 83.8 percent of investment in the sector (see Figure 1). In 1977, less than a quarter of firms in the AEA were founded in the last five years (The president's 1978 tax reduction and reform proposals, 1978g, p. 1333). Without a reason to equate the interests of tech as a whole with this fraction of its membership, the AEA's own data provide little evidence of complementarity between tech's and VC's interests.

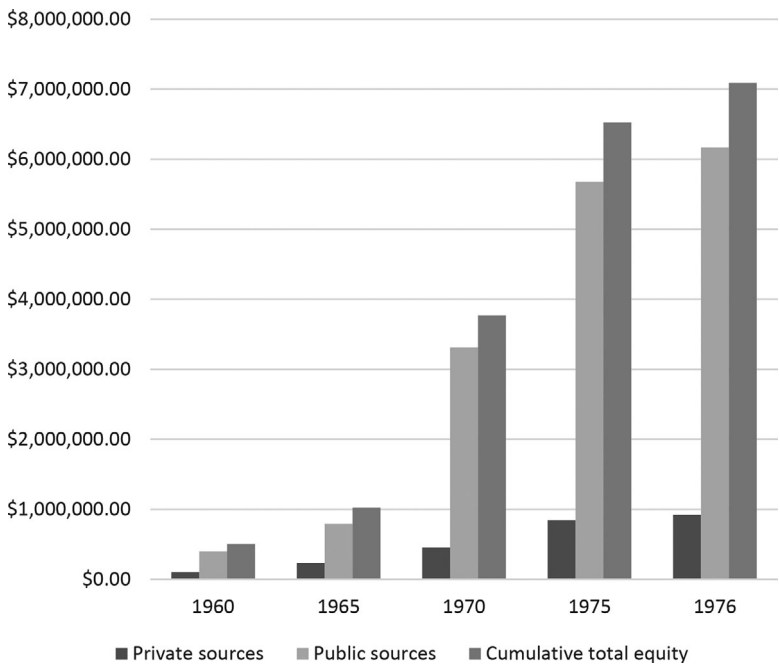


Figure 1. Equity in AEA member firms (thou USD).
Source: Author's calculations, based on 'Capital formation survey of high-technology companies', WEMA (Included in The President's 1978 tax reduction and reform proposals, 1978g, p. 1331).

From a structural perspective, surrounding economic conditions could have given the AEA reason to view tech's interests as complementary with VC's. In 1977, inflation stood at about 6.5 percent (DeLong, 1997, p. 258) and was viewed as one cause of a broader 'capital formation' crisis (Blyth, 2002, p. 161), whereby borrowing costs rose as the Fed increased interest rates up to 5.35 percent by May 1977 (Board of Governors of the Federal Reserve System (US), 2020). Capital-intensive sectors, like tech, thereby had incentive to pivot toward equity and away from debt. A purely structural approach might suggest that the formation of the tech-VC bloc was simply the result of their relative positions in the specific inflationary environment of the 1970s, which endowed them with complementary interests.

One challenge for the purely structural approach is that while inflation may have increased borrowing costs in the late 1970s, tech had already faced similar conditions without forming a social bloc with VC. From 1972 to 1974, interest rates rose from 3.5 percent to 12.92 percent (Board of Governors of the Federal Reserve System (US), 2020), and while both the AEA and NVCA were active in this period, they did not ally with one another. If complementary interests were sufficient to form a social bloc, tech and VC should have pursued political coordination earlier and more easily.

As Kenney (2011) and others note, it was not until the late 1970s that VC began to coordinate political strategy with tech, which enabled it to become an element of the national innovation system in the US. Had tech and VC established a political relationship before this period, we would have seen tech lobbying alongside VC, such as during the NVCA's efforts to change ERISA regulations in early

1977. The AEA, however, was absent from those efforts (Johnson, 1980, pp. 56–57). Even in 1977, the AEA turned down the NVCA's overtures multiple times (Johnson, 1980, p. 46). This pattern of separation contrasts with the coordination following the formation of the tech-VC bloc, where tech repeatedly lobbied alongside VC, such as for revising the tax code in 1980 (Advisability of a tax reduction in 1980 effective for 1981, 1980). This political coordination indicates an enduring shift beyond tech and VC's economic relationship.

The reason that the AEA finally agreed to political coordination with the NVCA is that it came to articulate its interests differently. This shift in interest articulation indicates the importance of discourse in the formation of social blocs. Against purely structural approaches, which read actors' interests directly from their relative positions in the economy, a discursive approach recognizes that actors identify their interests selectively, and may rely on particular causal discourses to articulate what they expect, or hope, the future to bring (Beckert, 2016; Hay, 2011). In the case of the tech-VC bloc, growth models discourse was central to the tech sector's selection of its interests, particularly in the way that supply-side economics led the AEA to select the interests of emerging firms as representative of the sector as a whole.

While the AEA's own data suggest that more of its members depended on state funding than on VC, it selected the interests of emerging firms, which did rely on VC, as representing the sector as a whole. This selection of interests echoed the causal linkages underlying supply-side economics in two ways. First, the supply-side approach shifted the AEA's attention to the factors necessary for producing goods, in this case capital investment, and away from the demand for firms' goods, which was still fulfilled, at this point, in large part by the federal government. Second, the AEA studiously overlooked the role of government in providing the inputs necessary for production, particularly when it came to capital investment, reflecting the market fundamentalism associated with the supply-side approach (Block & Somers, 2016, p. 3). These causal linkages led the AEA to select emerging firms' interests as representative of the sector as a whole, even though they represented a minority of the AEA's membership and capital investment represented only one aspect of tech's business model. The AEA gradually adopted the supply-side causal framework through exposure to NVCA materials and meetings with policy entrepreneurs and leading figures of supply-side economics, such as Jude Wannisky, as well as Arthur Laffer and Martin Feldstein, who testified alongside the AEA to support reducing capital gains taxes (Capital gains tax bills, 1978c, 1978d; Johnson, 1980, pp. 47–48, 282).

Supply-side economics served as coordinative discourse by providing the AEA a causal linkage that selected its interests in a manner that made forming a social bloc with VC appear as a logical and necessary step to realize a prosperous future. Moreover, the AEA did not simply adopt this discourse itself. The AEA helped fund econometric studies on the effects of lowering capital gains taxes by DRI and Chase Econometrics, which were singled out for relying on supply-side assumptions (Blyth, 2002, pp. 163–164). Zschau personally bankrolled a study by Chase Econometrics (Johnson, 1980, p. 171). The causal linkages underlying these studies formed the basis for what became the Silicon Valley model by articulating tech's interests in a manner that justified forming a social bloc with VC. They also played an important role in influencing policymakers.

Influence of social blocs

In 1977, nobody could have expected that President Carter would lower taxes for corporations and wealthy individuals. Carter entered office as a populist, committed to helping low-income Americans, but the Revenue Act of 1978 reduced corporate income tax from 48 percent to 46 percent and, more substantially, reduced the top rate on capital gains from 50 percent to 28 percent. These tax cuts represented government's response to popular pressure from both firms and individuals, but it was the tech-VC bloc that most directly influenced this legislation and made the capital gains tax reduction its core. The tech-VC bloc was so influential because it presented legislators with credible predictions that reducing capital gains taxes would drive economic growth by supporting technological innovation.

The success of the growth model that the tech-VC bloc presented legislators for reducing capital gains taxes certainly had something to do with its simplicity: all government had to do was reduce taxes on capital gains. This would spur technological innovation, thus improving productivity, and thereby spark economic growth. Indeed, this was the argument that legislators ultimately put forward when the Committee on Ways and Means released their proposal for the Revenue Act of 1978 (H. Rep. No. 95-1445, 1978, p. 120), indicating that the tech-VC bloc's discourse was directly influential in shaping the path of economic policy.

What makes the tech-VC bloc's influence so surprising is that its interests won out over more established sectors, such as manufacturing. It was precisely in this period that business became a significant player in American politics, but, rather than pushing for reducing capital gains taxes, major business organizations were focused elsewhere, such as reducing the corporate income tax and slashing environmental and labor regulations (Akard, 1992, p. 602). However, it was the tech-VC bloc that succeeded in persuading legislators that their sectors were uniquely suited to driving economic growth. An aide to Congressman Steiger told the *Washington Post* that 'the boss was quite interested in what he [Zschau] had to say' (Lardner, 1978), and contemporary observers noted that 'it was not until Dr. Edwin Zschau of the American Electronics Association presented Congress with hard data on what the capital gains tax was doing to his industry that legislators began to listen' (Bartlett, 1981, p. 151).

The reduction of taxes in general is not terribly surprising given that legislators hoped to spur economic growth, but it is surprising that capital gains taxes were reduced. From the perspective of purely structural approaches to social blocs, one would expect systemically relevant sectors, such as manufacturing, to influence policy, rather than the tech-VC bloc, which had a miniscule economic footprint. In 1978, manufacturing accounted for 22 percent of US GDP, and employed more than 20.6 million Americans. Tech, by contrast, accounted for 2.6 percent of GDP and employed no more than 4.5 million (BEA, 2020b).⁶ The most important representatives of manufacturing, the National Association of Manufacturers and the Business Roundtable, made clear that their members were more interested in corporate income tax and investment tax credits than capital gains taxes (The President's 1978 tax reduction and reform proposals, 1978a; 1978d) In addition, small business, which accounted for the majority of employment, had little interest in capital gains taxes. During Congressional hearings, when asked about 'your top priority for tax stimulus for the small business sector of the economy', the Council

of Small and Independent Business Associations and the Small Business Legislative Council were quick to answer, ‘The corporate tax rate’ (The President’s 1978 tax reduction and reform proposals, 1978b, p. 1365; 1978e, p. 1365).⁷ The Revenue Act of 1978 did partially respond to the interests of these systemically relevant sectors by lowering the corporate income tax by two points, but reductions to capital gains taxes were the Act’s ‘centerpiece’ (Martin, 1991, p. 27). Explaining why requires incorporating discourse into purely structural accounts of social blocs.

The tech-VC bloc was able to influence the path of tax reform because it presented credible predictions to persuade legislators that serving its sectors’ interests would serve the national interest. While economic policymaking in the postwar era had revolved around how to drive aggregate demand, in the 1970s productivity became the central focus. G. William Miller, Chair of the Federal Reserve, testified that ‘there is nothing more important than renewing vitality in productivity, plant modernization and technology – regaining our leadership as a producing nation’ (Revenue Act of 1978, 1978, p. 1179). The tech-VC bloc engaged this call by presenting data to support predictions that reducing capital gains taxes would increase productivity. These predictions relied on causal models from supply-side economics, which anchored an ‘instrumental rationalization’ for lowering capital gains taxes (Fairclough & Fairclough, 2012, p. 110). These models predicted that reducing capital gains taxes would lead to technological innovation, which in turn would increase productivity.

To support the causal linkages underpinning this instrumental rationalization, the tech-VC bloc commissioned a number of studies. This data was influential because it undergirded predictions that reducing capital gains taxes would drive economic growth, thus linking their policy proposal to future conditions, as well as the interests of the tech-VC bloc to the national interest. During hearings before the Senate Subcommittee on Taxation and Debt Management, Zschau presented data from the AEA’s survey, concluding that it ‘leads us to the answer to the question of who benefits most from the capital gains tax reduction. Our survey says all of us. Really, it is the American people’ (Capital gains tax bills, 1978f, p. 270). The causal linkage between furthering the tech-VC bloc’s interests and the national interest relied on a variety of arguments, such as tech’s contribution to a positive balance of trade (Capital gains tax bills, 1978e, p. 127), but the most popular argument had to do with tech’s contribution to productivity.

Building on established narratives about small business’s superiority (Atkinson & Lind, 2018), as well as a broader shift in economic discourse toward productivity (Kristol, 1977; Cited by Bartlett, 1981, p. 4), the tech-VC bloc argued that emerging tech firms would contribute to productivity increases. Tossing aside all the complications around what drives economic growth, the tech-VC bloc presented legislators with a causal model whereby reducing capital gains taxes would support the emergence of new tech firms and these new tech firms would introduce technological innovations that improved productivity on a national scale. Thus, according to the tech-VC bloc, productivity would increase if capital gains taxes were reduced. This model allowed Zschau to link the tech-VC bloc’s interests to the national interest: ‘Without sufficient advances in technology, productivity suffers and US companies become less competitive not only in foreign markets but also here at home’ (Capital Formation, 1978, p. 7; *Capital gains tax bills*, 1978f, p. 281).

According to the tech-VC bloc's model, the turnkey solution to these macro-level challenges was to reduce capital gains taxes.

Legislators adopted the growth model sketched out by the tech-VC bloc, constituted by causal linkages between tech and economic growth, along with the symbols the tech-VC bloc invoked. These causal linkages enabled legislators to make detailed predictions of potential costs and benefits of reducing capital gains taxes, which they deployed when justifying their support for the reduction (H. Rep. No. 95-1445, 1978). Senator Alan Cranston (D-CA) explained to his colleagues that he supported reducing capital gains taxes partly because 'the way to increase productivity and exports is through research and development of new technology' (Capital gains tax bills, 1978a, p. 246). Congressman Steiger repeated lines from Zschau's February 1978 testimony when he told the Ways and Means Committee two months later that 'Risk capital investment is like the goose that lays golden eggs' (The president's 1978 tax reduction and reform proposals, 1978f, p. 6024). With data-backed predictions that reducing capital gains taxes would drive economic growth, the tech-VC bloc made legislators an offer they could not refuse.

Endurance of social blocs

The tech-VC bloc has proved to be remarkably durable, and indeed has become ever stronger over the past decades. In her history of Silicon Valley, O'Mara (2019) traces the deepening relationship between tech and VC from the 1970s onward, and Lazonick (2009) demonstrates that the alliance between the two sectors is at the core of the 'New Economy Business Model', indicating the endurance of the tech-VC bloc's political coordination along with its influence.

One illustrative example of the endurance of the tech-VC bloc's political coordination and influence is the fight over regulating stock options. The Financial Accounting Standards Board (FASB) has repeatedly proposed regulations that would limit firms' ability to award employees stock options, and, since the 1980s, tech and VC have coordinated resistance to the proposals (Hacker & Pierson, 2010, p. 191). Each time, the tech-VC bloc mobilized the Silicon Valley model to contest the measures, arguing that (a) financial liberalization is necessary for technological innovation, (b) technological innovation increases productivity, (c) productivity increases spur economic growth, so that (d) financial liberalization is necessary for economic growth. For decades, the tech-VC bloc succeeded in persuading policymakers to retreat from regulating stock options as an expense, just one example among many where the tech-VC bloc influenced policy (Moore & Tambini, 2018).

A purely structural approach to social blocs would explain the endurance of the tech-VC bloc's political coordination in terms of tech's and VC's complementary interests, and its influence in terms of each sector's economic footprint. Indeed, following the 1970s, complementarity among tech's and VC's interests intensified. By 2019, software was the sector with far and away the highest concentration of VC investment, at 34 percent (National Venture Capital Association (NVCA), 2020, p. 25), illustrating that VC has become more dependent on tech. Tech has also become more dependent on VC. Whereas 46 percent of publicly traded tech firms relied on VC to get started in 1980–1989, that proportion rose to 69 percent in 2001–2019 (Ritter, 2020). Each of the tech giants – Google, Apple, Facebook, and Amazon – relied on VC to get started, which has inspired a collective attempt to

emulate these firms' success through the 'unicorn' business model. Unicorns are firms valued at more than \$1 billion, and represent a strategy whereby investors bet on one particular firm becoming dominant, and then pump that firm with capital, allowing it to stay afloat through extended losses as it attempts to gain market share. A unicorn can extract considerable rents if it dominates a particular market, thus providing investors enviable returns, but until it becomes profitable, such firms depend on entrepreneurial finance, namely, VC. The scale of potential returns from picking a winner, such as Google, has increased the flow of capital into Silicon Valley, leading to the rise of mega-funds like Softbank, which raised more than \$100 billion in 2018 (Kenney & Zysman, 2018, p. 9). Given the complementary interests between tech and VC, it makes sense for these sectors to continue coordinating politically, because each is incentivized to protect a necessary input for their business model.

Since the 1970s, tech's economic footprint has also grown considerably, which may explain some of its enduring influence over economic policy in the current era. In 2019, tech represented 7.1 percent of GDP, which remains relatively small in static terms. However, from 2012 to 2019, tech as a whole increased its contribution to GDP by 13 percent, with some branches reporting tremendous growth, such as data processing, internet publishing, and other information services, which grew its contribution to GDP by 117 percent, the highest among any reported sub-sector (BEA, 2020a). As far as legislators believe the predictions of the Silicon Valley model, it makes sense to craft policies that meet the tech-VC bloc's interests, because doing so seems to contribute to economic growth.

While the tech sector's real, measurable contribution to economic growth is no doubt important to the endurance of the tech-VC bloc's influence, a purely structural approach to social blocs must integrate discourse in order to address two gaps. First, the tech sector's economic footprint is still relatively small and the notion that it will continue to increase its contribution to economic growth is based on a prediction derived from the causal linkages underpinning the Silicon Valley model. If legislators stopped believing in those causal linkages, the case for tech's systemic relevance would evaporate. Second, while tech's growing economic footprint may partly explain its influence over policy, what about VC? In 2019, VC contributed only 0.6 percent to US GDP (OECD, 2020b). VC's influence on policy is due not to its own economic footprint, but to its relationship with tech. In hearings on expensing stock options in 2004, for instance, Congressional representatives from both parties echoed the perspective of the NVCA, which testified that 'the technology industry today simply would not exist without VC' (H.R. 3574 – The stock option accounting reform act, 2004, p. 16). The Silicon Valley model provides the crucial causal linkages for legislators to predict that tech will continue to contribute to economic growth and to view VC as necessary for technological innovation and thus economic growth. What has changed since the 1970s is that many of these predictions have become descriptions, and the Silicon Valley model appears to represent a more or less correct account of how to drive economic growth.

Integrating discourse into purely structural accounts of social blocs illustrates that transforming the Silicon Valley model from a set of predictions into a set of descriptions involves the model's performative properties. The causal linkages between financial liberalization, technological innovation, and economic growth

were originally predictive, rather than descriptive, because the tech-VC bloc originally presented the Silicon Valley model in 1978 as a proposal for what *could* happen, rather than what was *actually* occurring. In this way, the Silicon Valley model is performative, because it took actors acting *as if* it were true in order to make it so. Without situating the Silicon Valley model in historical perspective, it is easy to present its constitutive causal linkages as timeless structural characteristics. Indeed, this frequently occurs in public discourse. The Cato Institute argued in 2020 that startups, particularly the high-growth firms known as ‘gazelles’, are necessary to keep the US economy moving, and that they require financial liberalization: ‘From Apple Computer in the 1970s, to Amazon in the 1990s, to Airbnb today, gazelles are fueled by risk capital and favorable capital gains taxes have kept the fuel flowing’ (Jordan, 2020). In the 2000s, the tech sector may drive economic growth, and financial liberalization may actually support technological innovation, but as far as this is the case, these empirical regularities resulted from policy changes due to the tech-VC bloc’s lobbying. As argued above, explaining why this coordinated lobbying occurred, and why it was influential, requires integrating discourse into structural accounts of social blocs.

It would be fair to infer that the performativity of the Silicon Valley model increases the relative importance of structural factors to the tech-VC bloc’s power in the current-day US, but the model’s discursive properties remain central to the politics of digital transformation in other countries. In the US, the predictions underlying the Silicon Valley model largely became true, but it remains an open question whether this will be the case in other countries attempting to emulate Silicon Valley’s success. The article concludes in the following section with some suggestions for how future scholars could apply the framework developed here to address that question.

Conclusion

This article highlighted the role of discourse in explaining why tech and VC have been able to influence economic policy in digital transformation despite lacking structural power. Extending the growth models perspective, the article developed a conceptual framework to make sense of the character of business power in digital transformation. Illustrating how discourse can be integrated into purely structural approaches to business power, this conceptual framework revolves around three causal mechanisms characteristic of social blocs, namely, their formation, influence, and endurance. This framework builds on the notion underlying the concept of social blocs that business power is more than just a discrete act of influence, but instead involves durable political relationships among different sectors. Drawing on a case study of the origins of the Silicon Valley model, the article advances theory development in the growth models perspective and business power in general, and addresses an important empirical puzzle in the politics of digital transformation.

While developing a novel conceptual framework and providing new empirical insights on the origins of the Silicon Valley model, this article raises two sets of questions that future research can address. The first has to do with diffusion. The article traces the role of discourse in the early days of the Silicon Valley model, but applying the conceptual framework developed above to the politics of digital transformation in other countries requires additional analytical steps to take other

countries' unique contextual conditions into account (Falleti & Lynch, 2009). Second, while the framework developed above is useful for making sense of the character of business power, it raises thorny questions about the boundaries of social blocs. It is worth briefly sketching out how future research can take up these questions.

From the perspective of policy diffusion, other countries may have adopted elements of the Silicon Valley model not due to the dynamics of social blocs, but simply due to policymakers following the example of the US. However, while the flow of ideas across borders is certainly an important element of the Silicon Valley model's global popularity, policy emulation often involves business power because firms are crucial to the policy process, particularly when it comes to implementation (Jacoby, 2000). The conceptual framework developed above can assist scholars in determining how business shapes the path of digital transformation in other countries, though doing so will require adapting this framework to different discursive contexts and institutional environments. The importance of supply-side economic theory to the character of the tech-VC bloc's power suggests that variation in national economic traditions will lead to variation in the dynamics of social blocs and thus the path of digital transformation. Scholars could study how Ordoliberalism or ideas of the social market economy have shaped the path of digital transformation in Germany (Schulze-Cleven & Weishaupt, 2015; Vail, 2018), just as in Sweden, we would expect ideas of social democracy to have a similar impact (Andersson, 2009). Similarly, political institutions shape firms' influence on policy development (Gourevitch & Shinn, 2005; Martin, 1991), so extending the framework developed above to other countries will require adapting it to different institutional environments. In corporatist countries like Germany, for instance, institutions for interest intermediation imply that the primary channel for influencing economic policy is to build broad cross-sectoral coalitions, which could conceivably give existing sectors an advantage over the new ones that drive digital transformation (Hall & Soskice, 2001, p. 48). Future research could apply the framework developed above to cross-national comparisons in order to examine the effects of different discursive contexts and political institutions on how new sectors, such as tech and VC, exercise power over the path of digital transformation.

Given that business is organized differently in different countries, extending the framework developed above will require future research to address social blocs' boundaries, both external and internal. Given space limitations, this article defined social blocs' boundaries pragmatically, focusing on those interests that actors claimed to represent, and thus treated the external boundary of the tech-VC bloc as the membership of the AEA and the NVCA. Future scholars could investigate how existing structures of business organization shape the membership of social blocs by examining what exactly the interests are that a given social bloc represents, and which actors belong to the social bloc and which do not. Moreover, scholars may also want to take up the vexing issue of internal hierarchy within social blocs (Baccaro & Pontusson, 2019, p. 11). As the above case study illustrated, tech and VC in the US succeeded in exerting enduring influence over economic policy since the 1970s, but it remains unclear who really benefits from the policies they have passed. Reducing taxes on capital gains in 1978, for instance, certainly benefited those tech firms that received VC in the following years, but how should we conceive of their benefits in relation to the venture capitalists who accumulated

massive fortunes as they institutionalized the practices now associated with the Silicon Valley model (Kenney, 2011)? Determining who benefits, however, requires confronting the question of how actors perceive their interests. While this article has emphasized the role of discourse in shaping actors' perceptions of their interests, this is not to deny the material reality of unequal distribution in capitalism. Future scholars can take up the question of internal hierarchy within the social blocs that drive digital transformation by integrating the discursive approach developed above with existing structural approaches, particularly around questions of economic inequality.

While the tech-VC bloc has endured since the 1970s, the late 2010s have presented it with new challenges. Some of these come from the state, as legislators consider breaking up the monopolies that currently constitute the tech sector (Culliford, 2019). Other challenges come from within the social bloc itself, as tech workers begin to recognize that, despite their stock options, they are workers. Google's hostile response to recent efforts at labor organizing among its engineers has only strengthened workers' growing sense that their interests do not overlap with the bosses', and has bolstered their unionization drive (Alphabet Workers Union (AWU), n.d.; Ghaffary, 2019). Just as a discursive approach to social blocs can help make sense of policy debates at the national level, it could also offer insights into the processes through which workers' perceptions of their interests change over time. The Silicon Valley model has benefited tech and VC, but by socializing the risk of investment while privatizing the returns, it has contributed significantly to economic inequality (Lazonick & Mazzucato, 2013). As tech workers come to perceive their interests differently, perhaps they will mobilize for more equitable economic policies.

Notes

1. I use 'tech' to refer to the information and computer technology firms associated with Silicon Valley, following popular usage. However, it should be noted that defining the tech sector can present considerable difficulties (see Hecker, 2005), especially as its characteristic activities have shifted over time from manufacturing electronics to producing software and internet-based services. In this article, the term remains focused on digital technologies, and, as I show, the politics around this sector display important continuities over time. Similarly, I rely on Nicholas's (2019, p. 2) definition of 'venture capital' as actors 'channeling risk capital into entrepreneurial ventures on behalf of limited partners,' which provides a general enough description of entrepreneurial finance, while focusing on limited partnership, thereby picking out the organizational field in which VC evolved in the period under study.
2. 'Silicon Valley' was invented by journalist Don Hoefler in 1971 (O'Mara, 2019, p. 99), and reflects an idealized version of Northern California's high-tech sectors, which paved the way for the 'Silicon Valley model', an attempt to operationalize those dynamics in a particular set of economic policies (Casper, 2007).
3. These figures reflect an expansive definition of the tech sector, which includes both computer manufacturing and the information sector, and therefore likely overstate tech's relevance to Germany's economy.
4. Given space constraints, this article treats membership in the tech-VC bloc pragmatically by considering its boundaries to be defined by the task force because this was the core of its political coordination, and thus includes just the membership of the AEA and the NVCA. As discussed in the concluding section below, determining the precise boundaries of social blocs is a fruitful area for future research.

5. While the AEA distinguished between public and private sources of capital, it did not specify what it meant by 'public', so this could refer to funding from the Department of Defense, National Institute of Health, or any number of other sources. Despite these limitations, the survey, which included data from 325 electronics firms, remains an illustrative piece of evidence regarding tech's structural position vis-à-vis VC.
6. To measure the tech sector, I use data on 'electronic equipment and instruments', which were classified as SIC 36 and 38 in the 1970s.
7. Some minutes later in the discussion, after Zschau articulated why reducing capital gains taxes should be the Committee's primary focus, Pendergast suggested that he too supported reducing capital gains taxes (p. 1367). His preceding testimony, however, supports his first position that the Council of Small and Independent Business Associations gave priority to reducing corporate income taxes.

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