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Rethinking the American Industrial Policy Debate: The Political Significance of a Losing Idea

Abstract: In the early 1980s "industrial policy" seemed to be emerging as the American left's answer to supply-side economics. Yet soon after, supply-side economics was triumphant and industrial policy back in the political wilderness. This article investigates why the American left rejected industrial policy in the 1980s but appears to be reembracing it under the Biden administration. Via reviewing the history of the industrial policy debate, I argue that the American left rejected industrial policy proposals for several reasons including disunity within the Democratic party coalition, the growing strength of the venture capital industry, and the perceived incompatibility of industrial policy with American political institutions. Despite the defeat of industrial policy movement in the 1980s, however, I argue that a process of adaptation and reworking during the Clinton administration allowed industrial policy ideas to survive in "hibernation," ultimately reemerging in the changed policy environment which followed the 2008 financial crisis.

Keywords: Industrial Policy, supply-side economics, American political institutions, Clinton Administration, Biden industrial policy

Scholars of policy history have a natural bias toward winners. It is the ideas that triumph, making it through the perilous obstacle course of political debate to be implemented in law, that most obviously affect events and attract the lion's share of attention from historians and political scientists. An influential recent book by Tullis and Mellow however argues that American political development has frequently been shaped by the legacies of defeated ideas.[1] From the antifederalist influence on later constitutional developments to the

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role of Barry Goldwater's defeat in the making of modern conservatism, it has often been the case that losing ideas, discredited in public debate and left out in the political wilderness, have nonetheless persisted and returned to influence the policy process. This article examines one such losing idea, the proposal that the United States should adopt a national industrial policy.

For a brief period in the early 1980s it appeared as if "industrial policy" might become a centerpiece of the Democratic Party's ideology.[2] In the face of economic malaise and with the American left grappling for an answer to Reagan's "supply-side revolution," it was increasingly argued that what the US needed was a coordinated, national policy to direct capital toward targeted high-value sectors.[3] Such proposals were embraced by many prominent figures within the Democratic Party and appeared set to become a major component of the US left's economic agenda.[4] However, after this brief moment in the sun, a powerful counteroffensive by supply-siders, as well as some liberal skeptics of industrial policy, drove the idea our of respectable policy circles. The "industrial policy debate" has since become a little-remembered episode in the policy history of the 1980s, attracting interest mostly from scholars concerned with why policy ideas fail to ignite.[5] In recent years, however, industrial policy appears once again to have gained significant resonance within Democratic policy circles. Confronting a major "tech race" with China and the challenge of decarbonizing the US economy while simultaneously seeking to heal the scars of deindustrialization often said to have allowed the rise of Trump, the Biden administration has pushed through a series of bills significantly expanding sector-specific interventions by the federal government. According to a recent article in *The Economist* these bills will "double the spending that can be characterised as industrial policy … catapulting it past France, Germany and Japan, keen practitioners of industrial policy."[6] Such policy moves reflect long-standing calls for a Green New Deal and for more active government intervention that have been building on the US left for much of the last decade.[7] It is too early to tell how far this new experiment in industrial policy will go, or how long it will last, yet already, industrial policy has arguably become more embedded within the US left today than it ever was during the industrial policy debate of the 1980s.

Why did the US left resist the call for active industrial policy in the 1980s but embrace it in the 2020s? Answering this question may yield important insights into how the US economy, Democratic Party politics, and American political culture generally has changed over the last four decades as well as offering another case study on the legacy of "losing ideas" in US politics. This article therefore seeks to trace the left's relationship with industrial policy from the industrial policy debate in the 1980s to the Biden administration today. It begins with a brief theoretical discussion on the general topic of losing ideas and how they gain influence. It then reviews the industrial policy debate of the 1980s, concluding that the industrial policy movement floundered primarily because of perceived incompatibility with the American political system. Following this, I examine how erstwhile industrial policy advocates sought to adapt and rework their proposals into a form compatible with the US political system in ways that influenced the Clinton administration's economic policy. Although this had limited success in itself, I argue that it has provided a form of institutional hibernation for industrial policy ideas, allowing them to be resurrected in the Obama and Biden administrations. The article then turns to contemporary leftist politics where I suggest that growing liberal dissatisfaction with the American constitutional order and attempts to restructure the basic workings of American government have meant that the prior objection to industrial policy (namely, that it was incompatible with American institutions) lacks the weight it once had to silence calls for its consideration.

THEORIZING THE LEGACIES OF LOSING

In their recent work *Legacies of Losing*, Tullis and Mellow make a powerful case for how American political development has been influenced by defeated ideas. Throughout American history they argue, there have been many cases where "prominent political actors were vanquished decisively; yet these losers eventually achieved success for their ideas and preferred policies."[8] Such cases, they suggest, have often linked to critical constitutional moments when new political orders had been established in American politics (e.g., the American founding, Reconstruction, the rise of the New Deal order). In response to these events, Tullis and Mellow identify important "antimoments" where opposition to these political orders crystalized (antifederalist opposition to the Constitution, Andrew Johnson's opposition to reconstruction, Goldwater's opposition to the New Deal).[9] In each of these antimoments, the opposition was defeated in the short term but, Tullis and Mellows argue, began a pattern of opposition to the established order that grew over time, eventually producing significant disruption and change.

The account offered by Tullis and Mellow draws on long-standing preoccupations within American political development regarding political time.[10] In each of the antimoments they discuss, the failure of the political movement in question largely came about as a result of the established

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political order the movement opposed being in its prime and retaining strong loyalty from wide political coalitions. Only when that political order started to degrade were the opposing ideas able to gain influence. This suggests an explanation as to why policy ideas are frequently defeated in one period but return to prominence in another. Such an explanation also relates to a considerable body of literature on the influence of ideas in politics, which argues that for long periods polities may be dominated by overarching policy paradigms that help determine what policy ideas are or are not considered viable.[11] Only when a given paradigm starts to collapse, due to a build-up of technical anomalies that the paradigm cannot explain, will certain previously discredited ideas become viable.

Although such a dynamic is potentially plausible, there is at least part of the process that needs to be clarified—namely, how does a particular set of ideas persist from their defeat during the antimoment until the decay of the relevant political order? Assuming that such ideas have been widely discredited following their defeat, there would certainly be a risk that they would fade entirely out of public discourse and be abandoned by powerful actors. Should this decline be too severe, it does not seem likely that such ideas would reemerge to become influential at a later date. Given this, it is important to consider how ideas survive and propagate themselves during the period when they have been discredited and lack influence. In effect, we must explain a kind of institutional hibernation—ideas surviving in an inhospitable environment before they can reemerge. Recent advances in the literature on ideas in politics provide useful means for conceptualizing such a process. In contrast to the literature on policy paradigms and its attendant focus on large-scale, sudden change, much of the recent ideational literature has focused on incremental ideational change brought on by the *adaptation* of ideas.[12] Carstensen argues, for example, that ideational entrepreneurs engage in a process of "bricolage," taking ideas from various sources and adapting them into different combinations.[13] This may involve significant change to the content of ideas—with the language, form, and meaning of ideas being altered through the introduction of new frames and justifications. Such bricolage may help explain the process of institutional hibernation. When ideas are defeated rather than being abandoned, they will typically be folded-in to new movements and ideational projects. In such forms, they may no longer be promoted as explicitly and have different or fewer implications, yet through such adaptation they remain in circulation and in public discourse, allowing them to revert and return to prominence as the political order that they opposed decays and weakens.

In the following section of the article, I apply the theoretical concepts above to interpret the recent history of industrial policy on the American left. Following the focus Tullis and Mellow give to critical constitutional moments, I interpret the 1980s as a constitutional moment in which the declining New Deal political order gave way to a neoliberal order—an order heralded particularly by the growth of supply-side economics.[14] The industrial policy debate of the early 1980s can therefore, I argue, be seen as an antimoment when a potential alternative to neoliberalism (industrial policy) crystalized on the left but was incapable of gaining ground against the still vital neoliberal political order. The 1990s and early 2000s, especially under the Clinton presidency, represented a period of institutional hibernation, with industrial policy ideas being reworked and adapted into a more limited form, enabling them to survive in a neoliberal policy environment. After 2008, where the financial crisis, the rise of China, and the challenge of climate change have weakened the dominance of neoliberal ideas, I argue that industrial policy ideas have begun to reemerge, gaining renewed salience within the American left.

THE INDUSTRIAL POLICY DEBATE: AN ANTIMOMENT OF THE NEOLIBERAL ORDER

The industrial policy debate took place during a moment of transition for American economic policy. In the face of the stagflation and malaise that characterized the 1970s, there was a widespread perception that the emphasis on Keynesian demand management that had characterized economic policy since the 1950s was exhausted. At the same time, the perception of greater robustness in foreign economies—in particular Japan, which continued to cement itself in industries such as automobiles, pharmaceuticals, and electronics—generated a perceptible sense of alarm that America was falling behind in the race for the future.[15] In an atmosphere of intellectual crisis, the race was on to fill the void with a new paradigm for economic policy making.

It was in these circumstances that supply-side ideas rose to prominence within US politics. The core ideas of supply-side economics are well known and are only briefly reviewed here.[16] They began with the premise that the American economy faced a crisis in the form of declining productivity and that this crisis could only be solved by focusing on the supply-side of the economy, not on Keynesian demand-side management. The key to improving productivity was to unleash the power of American entrepreneurship by reducing restrictive government intervention. Much was made of the power of marginal tax rate cuts to turbocharge the US economy while also potentially increasing government revenues. Although supply-side economics is closely associated with the Reagan administration, recent scholarship emphasizes how it was not solely a Republican project but instead reflected a compromise forged between Republicans and moderate Democrats, figures such as Lloyd Bentsen who, while seeking to preserve higher levels of social spending, believed there was a need to shift from Keynesian demand-side management to a focus on supply-side issues, particularly the savings rate and the wider business environment. As chairman of the Senate Joint Economic Committee, Bentsen in 1980 brought both Republican and Democratic committee members together in a unified annual report that strongly endorsed supply-side thinking.[17] Supply-side ideas were dismissed as a fad by many Keynesians, and more respectable conservatives would distance themselves from extravagant claims about the miraculous self-financing nature of tax cuts.[18] Yet, in retrospect, supply-side economics represented the vanguard of an emerging neoliberal order that would rise to dominance in the 1980s and would bring about major cuts in tax rates and substantial deregulation of the US economy.[19]

Industrial policy was formulated explicitly to be a liberal alternative to such supply-side ideas. It was associated with a number of academics and public intellectuals, including Robert Reich, Lester Thurrow, and Ira Magaziner, who were based in the east coast and would go onto form the Economic Policy Institute.[20] Meanwhile a second somewhat distinct enclave of industrial policy advocates, including John Zysman and Laura D'Andrea Tyson, clustered in the east coast around the University of Berkley and specifically the Berkley Roundtable on the International Economy.[21] Broadly speaking, these industrial policy advocates advanced three main claims. First, drawing on frontier research in international economics,[22] they argued that certain critical industries, especially in manufacturing, produced positive spillover effects on productivity elsewhere and that by gaining a dominant position in imperfectly competitive international markets for these sectors nations could significantly enhance their power and prosperity. Second, channeling long-standing concerns about imperfections in capital markets, they argued that a lack of "patient capital" and an unwillingness to support high-risk high-reward ventures meant that private financial institutions would not support these sectors to a sufficient extent, even when supported through tax cuts or deregulation. Third, building on accounts of the supposed accomplishments of foreign industrial policies, particularly those of Japan's Ministry of

International Trade and Industry, they argued it was possible for states to build powerful and effective bureaucracies that could investigate business conditions in an objective way to identify important firms and provide targeted support. Japan, it was suggested, successfully used subsidies, loan guarantees, and protectionist tariffs to support its national champions, allowing them to outcompete international competition.[23] Industrial policy advocates therefore concluded that the US government could and should do likewise and develop a comprehensive industrial policy that would designate target industries and support their growth.

The details of industrial policy proposals varied, but generally they called for the establishment of an American equivalent to Japan's Ministry of International Trade and Industry. Prominent proposals included an expanded Department of Commerce, a federal department of industrial policy, an industrial development bank modeled on the New Deal-era Reconstruction Finance Corporation, or an Economic coordination council with representatives from Industry and Labor. Whatever the format, this new institution would be tasked with identifying "sunrise" sectors with high potential to boost productivity spillovers and with taking special action to support these sectors. Such support would primarily take the form of subsidies, tax credits, or loans at favorable interest rates. A secondary task for industrial policy would be to identify declining "sunset" industries and provide short-term support as part of agreed long-term plans to modernize and restructure these sectors. This array of spending, it was promised would be far more efficient than the hodgepodge of tariffs, quotas, and bailouts that had been applied indiscriminately in response to industrial problems throughout the 1970s.

Industrial policy was presented as a new forward-thinking philosophy of government intervention. Rather than being antibusiness it would work *with* business to achieve productivity growth and international competitiveness. Rather than redistributing the proceeds of growth for welfare or redistributive purposes, it would actively power growth by supplementing private sector decision making. Such a policy agenda held enormous appeal particularly for a new generation of Democratic politicians such as Gary Hart, Dick Gephardt, and Bill Clinton (a personal friend of Robert Reich), eager to make their mark through a distinctive policy profile.[24] Coming to be known as the Atari Democrats, these politicians would become strong advocates for industrial policy within Democratic Party politics. Vice President Walter Mondale, then a leading contender for the Democratic presidential nomination, also expressed interest, declaring on reading Reich's 1984 book *The Next American Frontier*, "this will do it for the Democrats."[25] Meanwhile in Congress, hearings were held to investigate the idea of industrial policy both by the Joint Economic Committee (JEC) and by the House Banking Subcommittee on Economic Stabilization. Democratic interest in industrial policy reached such an extent that an internal memorandum within the Reagan administration reported, "it is now clear that the Democratic party intends to promote a national industrial policy as one of the major themes of the 1984 Presidential campaign."[26]

As the industrial policy movement grew in prominence, it became subject of increasingly forceful criticism. It is interesting to note that of all the attacks mounted against industrial policy, the most significant came not from the supply-siders but from liberal Keynesian economists. Charles Shultz of the *Brookings Institute*, who had served on the *Council for Economic Advisors* under Carter, was especially influential in this respect.[27] Industrial policy also attracted criticism from the left of the Democratic party as a "corporate' agenda" that would focus on serving business interests and hastening the movement of corporations to the sunbelt and West Coast at the expense of the industrial Midwest. In contrast, supply-siders were circumspect in their criticism, seeming to regard the industrial policy movement as an ally in the attack against Keynesianism. Supply-sider Paul Craig Roberts for instance noted that "*most of the advocates of an industrial policy are pushing for supply-side policies, only they want to implement them through the government.*"[28] He considered the left's embrace of industrial policy to be a positive development, "*as it shows that supply-side concerns have set the agenda for the 1980s.*"[29] Reich reciprocated by noting that both industrial policy and supply-side economics "*focus squarely on stimulating investment rather than demand*," and he thus saw these two approaches as the only plausible contenders to guide US economic policy.[30]

This pattern suggests several things regarding the dynamics of ideational change and of American party dynamics during the 1970s and 1980s. If we conceptualize the 1980s as a moment when the broadly interventionist New Deal order, which had been strongly influenced by Keynesian demand-side management, was collapsing,[31] then supply-siders represented an attempt to build an entirely new, noninterventionist paradigm from the ground up. They proposed a fundamentally different outlook, rejected much of the policy direction of the past several decades, and valorized different centers of intellectual authority, spurning much of academic economics outside the Chicago School and placing more trust in the practical knowledge of businessmen and financiers than the prognostications of the beltway experts.[32] Industrial policy advocates, meanwhile, were in some sense trying to take over

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the existing New Deal order rather than destroy and replace it. Their goal was to assume intellectual leadership of the network of unions, think tanks, and advocacy groups that made up the democratic coalition and to present themselves as the inheritors to a liberal tradition stretching back to Johnson, Kennedy, and FDR. As a result, the industrial policy movement was vulnerable to critiques coming from *within* the liberal establishment, as this undermined its legitimacy within the world of liberal elite opinion. Mainstream economists were often just as dismissive of supply-side economics as industrial policy (Shultz for instance described it as a "fad" based on "a vast exaggeration of the incentive effects of taxes").[33] This however did little to impede the progress of supply-side economics because the core groups it was building a coalition around had little regard for the opinions of liberal academic experts. Targets of persuasion for industrial policy advocates however, such as labor unions and democratic politicians, traditionally had paid considerable attention to such experts, meaning criticism had a much greater effect. The expert-led culture that characterized Democratic Party politics, stretching back to the "Brain Trust" of the New Deal or the "Best and the Brightest" in the Kennedy administration had moreover since the 1960s become particularly attendant to advice from professional economists, a process documented at length in recent work by Elizabeth Popp Berman.[34] Such a culture contrasted with the somewhat more populist and even anti-intellectual mood of Republican Party politics.[35] This perhaps meant that an avowedly outsider movement like supply-side economics or industrial policy could seize control of the latter but not the former.

A second point to note about the critiques of industrial policy was the strong emphasis placed on the venture capital industry as a free market alternative to such policies. The venture capital industry had enjoyed a period of tremendous growth in the 1980s, thanks in large part to a prior cut in capital gains tax and changes to financial regulation making it possible for pension accounts to be invested in venture capital funds. It was thus widely argued by supply-siders that innovative new firms in high-value sectors would have more than enough support without a government industrial policy, if only the overall supply of capital was increased. Paul Craig Roberts for instance, argued that "*Any [industrial policy] bureaucracy would have far less incentive and ability to pick winners than venture capitalists.*"[36] John Albertine also remarked that "*If you are smart enough in this venture-capital system to come up with a potentially lucrative idea, you are probably smart enough to find sources of capital.*"[37] Drawing on contemporary anxieties about Japanese competition meanwhile, Thomas Kiley, the vice president of Genentech

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remarked, "*The venture capital mentality that exists in this country is totally absent from Japan, and I think we are greatly advantaged by that.*"[38] Such views supported a mind-set according to which, as described in a JEC report, "*the best way to deal with capital gap problems is to pursue policies that increase the supply of venture capital,*"[39] and thus "*as an alternative to industrial policy approaches … federal, state and local governments should use their tax, regulatory and expenditure authority to target the process of innovation by removing barriers to the expansion of venture capital.*"[40]

In this way, the industrial policy debate increasingly became defined by the question of whether public funding or private venture capital was the most effective means of supporting high-technology start-ups. Those in favor of industrial policy often found themselves forced to express skepticism about the potential of the US venture capital industry. Congressman Chuck Summer for instance remarked, "*Everybody agrees we have a terrific venture capital market in this country, at least compared to other countries. Are they still better at getting new ideas of the ground than we are? Are the Japanese the experts? If so, then maybe venture capital doesn't mean as much as we think it does and there are other things that are more important.*"[41] Such remarks, however, naturally made industrial policy just another example of a government takeover of private sector activity, negating the claim that had been central to its appeal of being a new more pro-business form of interventionism. In this context, Walter Mondale's reflection when explaining why he rejected industrial policy as a theme of his presidential campaign that "the more I read and thought about it the more I realized that guys like Magaziner and Reich were just pushing for more big government" is understandable.[42]

A final point worth emphasizing about the critiques of industrial policy is how far the critics focused not on the inherent drawbacks of industrial policy but rather on its incompatibility with the US political system. Time and again it was suggested that although industrial policy might theoretically work in a less-fragmented political system, such as Japan's, it was not *workable* within American politics. In particular, debate focused on the porous political system of the US, vulnerable to capture by special interests; its fractured and decentralized government, making consensus difficult to reach; its frequent elections, making it hard to take unpopular, long-term decisions; and finally, its lack of a developed permanent bureaucracy, making policy difficult to administer.[43] The point was made vigorously by Shultz, who argued, "*It is simply not possible in the American political system to pick and choose among individual firms and regions in the substantive, efficiency driven way envisaged by advocates of industrial policy.*"[44] Elaborating on this point in another JEC hearing, Shultz spoke even more frankly: "*We cannot do it. The American political system would not let us do it. I cannot conceive of an Industrial Policy Board sitting there saying, Youngstown die. Weirton stay open. … What I think is more likely to happen is that you would get a back-scratching operation in which declining industries would vote for subsidies for potentially advancing industries in return for votes for protection for the losing industries.*"[45]

Such arguments appeared to carry considerable weight in Congress where, after several decades of supporting the centralization of economic policy making within the executive branch, political actors had increasingly come to doubt whether any US government bureaucracy would reliably represent the national rather than mere sectional interests.[46] The same feeling was also present in much of the popular press and in intellectual circles. An influential piece in the *Harvard Business Review* (1983) for example, maintained that the Japanese "worked their miracles under unique political and economic circumstances" unlikely to apply to the US and that there was a need "to examine the current proposals for an industrial policy with an eye toward the political and economic realities of the United States."[47] Many experts on Japanese industrial policy making came to similar conclusions, with one leading authority on Japan claiming, although "*we should not underestimate the Japanese government's ability to implement a high-technology industrial policy … I am skeptical that any direct copying of the Japanese model would work in the United States.*"[48] Such skepticism of the suitability of industrial policy for the US was echoed by leading entrepreneurs, with Robert Noyce, for example, claiming, "*I have great difficulty believing that we in the United States have the ability to pick winners and losers.*"[49] It is also noteworthy in this respect that the JEC was ambiguous about the results of Japanese industrial policy in the report concluding its hearings on industrial policy but noted, "*even if Japanese industrial policy can be tabbed as a smashing success, the question is does the Japanese experience have relevance for a U.S industrial policy? The answer … is a resounding no.*"[50]

In the face of such harsh judgements, the enthusiasm that had initially greeted industrial policy began to fade. In Rhode Island, a state referendum on whether to adopt an industrial policy (which had been heavily promoted by Reich and Magaziner) ended in a stark rejection of the proposal, denting Democratic confidence that industrial policy would prove to be a vote winner.[51] In the Democratic primaries, Mondale won the nomination over Gary Hart (a prominent industrial policy supporter) and ran a campaign against Reagan largely focused on deficit reduction. Mondale's decisive defeat by Reagan in 1984 seemed to firmly signal the dominance of supply-side

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economics and the eclipse of the erstwhile challenger of industrial policy. Recognizing the political reality, the Democratic leadership in Congress largely shelved attempts to develop industrial policy legislation.

ADAPTATION AND HIBERNATION IN THE 1990S

By the mid-1980s then, industrial policy appeared to have been routed as an alternative to the neoliberal political order. Yet the concerns and anxieties that had prompted the industrial policy debate remained potent. The perceived competitive threat of Japan continued to grow, with Japanese firms challenging US companies in semiconductors, electronics, and other advanced technology.[52] The resulting anguish and pressure for trade remedy from US producers made the 1980s one of the most protectionist decades in recent US history, with the nominally free-trade Reagan and Bush administrations imposing emergency tariffs and "voluntary export restraints" on a wide range of products.[53] In the meantime, concerns about capital gaps, problems with commercializing basic research, and low productivity levels continued to persist. The late 1980s had consequently seen the growth of a considerable competitiveness agenda, which served to boost national competitiveness by tackling "unfair foreign trade practices," streamlining regulatory processes, and supporting the commercialization of government-funded research[54]

In response to this environment the former advocates of industrial policy made substantial efforts to adapt their proposals to the circumstance of the 1990s. Two books were particularly influential in this respect, Laura D'Andrea Tyson's '*Whose Bashing Whom? Trade Conflict in High Technology Sectors* and Robert Reich's *The Work of Nations. Preparing Ourselves for the Twenty-First Century.*[55] Both books sought in different ways to update industrial policy proposals to the environment of the 1990s and particularly to address the anxieties of globalization that strongly influenced that decade.

Tyson's work on trade drew on the general anxiety about foreign competition, particularly with Japan, to argue that even if the US was not going to adopt an industrial policy of its own it needed at least to be proactive in identifying the sectors it needed to protect from foreign industrial policies.[56] The Reagan and Bush administrations had already seen many cases of industries winning trade-remedy cases on the basis of unfair Japanese competition. Tyson argued that the US should be more proactive on this front, entering into negotiations with Japan and other industrial policy practitioners to limit the damage done to strategic American sectors. In particular, Tyson argued that government should seek guaranteed shares of foreign markets for

American firms. By achieving such agreements, Tyson argued, the US could disrupt the strategy employed by Japan and others of building national champions behind a wall of protectionism and then unleashing them in the international market where US firms could not compete. Achieving this kind of policy required a willingness to be tough, threatening both tariffs and export restrictions on key American technology used by foreign firms. It also required the US to engage in at least a limited kind of strategic planning, identifying which sectors were critical to its competitiveness and negotiating to defend those sectors.

Whereas Tyson was examining how trade policy could support American firms engaged in international markets, Reich fretted that American firms were increasingly unmoored from the general welfare of US society. In an influential 1990 *Harvard Business Review* article entitled "*Who is us?*" Reich argued that the growth of globalization meant that "American ownership has lost its relevance to America's economic future."[57] Firms headquartered in the US could increasingly outsource their production abroad, making little contribution to US economic life, whereas non-American firms that invested in the US could be far more central to US economic prosperity. In such circumstances, a traditional industrial policy directed at building up national champions through preferential treatment was no sure route to success. Instead, an industrial strategy needed to focus on "making America a good place for any global corporation seeking talented workers to set up shop."[58] To do so, Reich recommended an industrial strategy focused on investing and upgrading the American workforce, a strategy in which education, job training, and welfare measures designed to boost productivity played a central role.

These adaptations pursued by Reich and Tyson had important implications when it came to rebuilding the reputation of industrial policy after the defeat in the 1980s. As noted above, an important factor in the outcome of the industrial policy debate was the widespread conviction that a Japanese style industrial policy—using targeted intervention to support national champions—was unworkable given American institutions and the openness of US society. However, the fact that such a policy could not work within the United States did not mean such policies could not work in other societies and pose a threat to US competitiveness. Indeed, during and after the industrial policy debate, many of those critical of US industrial policy had nonetheless been prepared to take quite seriously the threat posed by Japan. Robert Noyce, for instance, cited Japan's subsidies of its semiconductor industry as a successful strategy they would be unlikely to abandon, noting that "*we can hope the Japanese will play the game by our rules, but I don't see any motivation for them*

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to do so whatsoever since they perceive they are winning using the current strategy. And, indeed, they may win."[59] In these circumstances, Tyson's framing of proposals for sector-specific interventions as a defense response to the industrial policy of other states had potential to be much more persuasive than straightforward industrial policy proposals. Reich's move toward a more broad-based industrial strategy focused on investing in the US workforce also provided a rationale for why US industrial policy could be different from the more bureaucratic industrial policies deemed unworkable in the US political system. It also arguably served to broaden the political appeal of industrial policy. Another element of the Democratic Party's reticence to embrace industrial policy during the 1980s had been a perception that its business-focused agenda was too removed from traditional democratic priorities in terms education and social spending. By shifting the focus of industrial policy to investment in the American workforce, Reich found a frame that could better encompass these wider priorities.

Concerns about US economic performance in the early 1990s ultimately proved sufficient to propel Bill Clinton to the White House based on an economy-focused presidential campaign. Clinton has been a strong supporter of industrial policy as governor of Arkansas, and it appeared likely that themes from the industrial policy movement would be incorporated into the Clinton administration's economic program. [60] Clinton appointed his old friend Reich as Secretary of Labor while making Laura D'Andrea Tyson, a leading figure at BRIE, chair of the Council of Economic Advisors. The new administration was thus influenced both by the traditional themes of the industrial policy movement and the new ideas being pushed by Tyson and Reich in the 1990s. At the same time, it was clear the Clinton administration had learned from the prior defeat of industrial policy and would not directly advocate policies that could be portrayed as picking winners through big government intervention. This reticence became even more apparent when Republican victories in the 1994 congressional elections forced Clinton to strike a conciliatory tone, famously declaring in the 1996 state of the Union, "the era of big government is over." The Clinton administration thus borrowed themes and ideas from the industrial policy movement but was careful to adapt them to fit within the anti-interventionist tone of the 1990s.

The Clinton administration presented its economic agenda as a pragmatic, evidenced-based, and comprehensive program to boost American competitiveness and prepare the country for the twenty-first century.[61] Central to this plan was substantially increased federal funding for science and technology research; the administration, for instance, sought to double the budget of the National Institute on Standards and Technology and established a new National Science and Technology Council that sought to coordinate science and technology policy goals across the federal government.[62] To support the dissemination and commercialization of this research, the Clinton administration proposed not a national industrial policy but rather federal support for state-level initiatives intended to boost the competitiveness of their local economies. This was seen particularly in the ambition of establishing 170 Manufacturing Extension Centers across the United States. The administration also encouraged public agencies to create venture capital funds with the goal of procuring technologies required to meet national economic objectives.[63] A prominent example of such government-sponsored venture capital firms was the CIA's In-Q-Tel. Such firms were characterized by clear lines between the private management and public funders. Government agencies provided money and a description of broad public policy problems they wished to address, and the sponsored venture capital firms were given wide autonomy to invest in start-ups judged likely to address these problems. In this way, the Clinton administration evinced a confidence in private capital markets that contrasted sharply with the industrial policy movement's denunciations of private equity and venture capital.

This was perhaps most evident when the Clinton administration supported cutting capital gains tax to restore preferential treatment for long-term investments.[64] Capital gains taxation had been an extremely contested and controversial policy issue during the 1970s and 1980s. Having reached historic highs with the 1976 Tax Bill, supply-siders had succeeded in getting the effective maximum rate reduced to twenty percent through the Tax Reform Acts of 1978 and 1981. With much of the left denouncing such cuts as highly regressive giveaways to the rich, Democrats were able to successfully increase the maximum rates to twenty-eight percent in 1986. The Reagan administration had agreed to this hike in exchange for cuts in marginal income tax rates. Yet this compromise also reflected the ambivalence that Reagan and many supply-siders felt about taxing capital gains less than ordinary income. According to a former policy advisor for Reagan, Bruce Bartlett, for example, "*Reagan agreed with Democrats that capital gains and ordinary income ought to be taxed at the same rate.*"[65] However, concerns about national competitiveness and the need to increase long-term investments altered the political landscape. In earlier debates, arguments for low capital gains tax had rested on the need to simplify the tax code or on the argument that it amounted to unjust double taxation. Increasingly, however, it was argued that a low preferential capital gains tax was necessary to support the venture capital industry and

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correct biases in capital markets toward low-risk short term opportunities. For instance, Richard Kramlich, president of the National Venture Capital Association, noted that "*taxing capital gains as ordinary income … sends a clear signal to individuals and corporations that there is nothing special about long-term investments. As a result, the emerging company, once and still among this nation's most precious resource, has been placed on the endangered species list.*"[66] Advocates were equally adept at exploiting the concerns about competitiveness vis-a-vis Japan that had been raised in the industrial policy debate. For instance, a 1991 report on capital gains by the Manufacturers Alliance for Productivity and Innovation stated that "*Japanese tax and economic policies aim to keep the cost of capital low … which in turn has meant a higher rate of productivity and increased competitiveness in comparison to its firms. If US policy fails to stimulate investment … there is no question that US industry will become less competitive in world markets.*"[67] With the aid of such arguments, supporters of low capital gains were able to reintroduce a differential rate for long-term gains in the Budget Acts of 1990 and 1993. This would ultimately lead to further cuts, reducing the capital gains tax to historic lows after 1997.

The Clinton administration's economic policy also showed clear marks of influence by the reworking of industrial policy being promoted by Tyson and Reich. On trade, Clinton's forming of the National Economic Council as a kind of economic equivalent to the National Security Council was explicitly understood as a means of facilitating the strategic goal setting and focus on international economic policy that Tyson advocated. In the administration's trade negotiations with Japan, particularly its "Framework for a new Trade Relationship," the Clinton administration made substantive efforts to pursue a "strategic policy," adopting a "results-oriented" approach, which demanded specified market shares of high-technology sectors be achieved for American firms.[68] Meanwhile, the administration also placed considerable emphasis on the labor market interventions Reich advocated. This included proposing over $13 billion in job training spending, creating a specialized support program with a focus on retraining for workers affected by the North American Free Trade Agreement, and introducing support for college tuition tax deductions, which have since become a Democratic Party mainstay.[69]

Taking these initiatives in trade, tax, and science and technology policy, we can see in the Clinton administration the emergence of a limited kind of industrial policy. In this framework, broad goals for economic development were set by the NEC which, although without binding power, served as reference points for a wide variety of federal agencies. Government funding for basic research would advance technological development to achieve these

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goals, whereas the private sector, supported by private public partnerships and incentivized by favorable tax rates, would speed the dissemination of these technologies. This agenda was less extensive than it might have been, especially given the opposition it faced from Republicans in Congress. It licensed a greater role for private actors than those on the left would have liked and introduced only the most minimal and reactive kind of strategic planning. Nonetheless, by making such accommodations, the Clinton administration was able to keep certain components of industrial policy within the US policy process.

THE RETURN OF INDUSTRIAL POLICY

Throughout the 1980s and 1990s, advocates for industrial policy had struggled to gain ground within an environment where neoliberal ideas held a dominant influence. By the end of the 2000s, however, developments had occurred that produced serious cracks within the neoliberal political order and provided industrial policy with a new plausibility and salience. The first such development was the financial crash of 2008.[70] Casting doubt on the effectiveness of free market capitalism in general and the rationality of the capital markets in particular, this event did much to bolster the legitimacy of interventionist policy ideas including industrial policy. The second development worth highlighting was the growth of environmental politics and concerns with decarbonizing the US economy.[71] In previous debates, industrial policy had often been vulnerable to the charge that there were no clear criteria for the selection of strategic goals or for deciding what industries or technologies to pursue. Decarbonizing the economy provided a broad, far-reaching mission for transforming the US economy, giving industrial policy a sense of purpose and relevance in the form of a potential Green New Deal.[72] In keeping with this changed environment, the Obama administration undertook initiatives that seemed to suggest a return to industrial policy. For example, the administration's economic stimulus following the financial crisis included over $27 billion of sector-specific investment in renewable energy.[73] Other actions of the early Obama administration, in particular the bailout of the US auto industry and the proposal to create a national network of manufacturing innovation, evidenced a new willingness to experiment in industrial policy.[74] Yet the Obama administration also contained potent reminders of the political difficulties industrial policy could face. The high-profile case of Solyndra, a solar panel manufacture that filed for bankruptcy two years after receiving $535 million of support from the Department of Industry, would cause the

Obama administration considerable embarrassment.[75] Experiments in industrial policy thus remained a relatively muted part of the Obama agenda, overshadowed by wider priorities such as health care.

The election of Donald Trump in 2016 may be regarded in certain ways as a further catalyst contributing to the deterioration of the neoliberal political order. A divisive and controversial figure both on the left and on much of the right, Trump's election was seen by many as reflecting deep dysfunction within US society, shining a spotlight on large swathes of the country damaged by several decades of deindustrialization. In such circumstances the need to rejuvenate manufacturing and rebalance regional inequality gained a great deal of salience in Democratic policy circles, further bolstering the case for a return to industrial policy. The Trump administration's approach to trade policy meanwhile, in particular regarding China, in many ways embraced the more forceful combatting of foreign industrial policies that had been advocated by Tyson.[76] Trump's United States Trade Representative Robert Lighthizer, key architect of the administration's trade policy, was a firm believer in the potential efficacy of foreign industrial policies, remarking in 2010 that "we spent most of our lives saying we don't need an industrial policy, and the Chinese are proving that we probably do need an industrial policy."[77] With the support of many congressional Democrats, Lighthizer imposed substantial tariffs on Chinese exports as part of a forceful negotiation approach intended to remove the main pillars of China's industrial strategy.[78] Through such actions, the Trump administration contributed to a growing belief in the dangers of Chinese industrial policy, a belief that has in turn been crucial to justifying a return to industrial policy on the US left.

If the financial crisis, the growth of environmentalism, and the turbulences of the Trump years represent important background factors supporting the return of industrial policy, COVID-19 has been a further and more-direct catalyst. The effect of the global shutdown in 2019 and resulting shortage in critical manufactured goods (in particular semiconductors and medical equipment) brought home the brittleness of global supply chains, strengthening the case for government action to maintain a domestic industrial base.[79] Meanwhile, the success of "Operation Warp Speed" in developing and rolling out a vaccine for COVID-19 powerfully evidenced what government support for private sector activity could potentially achieve.[80] It is therefore unsurprising that the Biden administration, through the use of the "Build Back Better" framework sought to closely link its industrial policy efforts with the recovery from COVID-19.

Compared with the muted efforts at industrial policy in the Clinton and Obama administrations, the Biden administration has been remarkably assertive in advancing industrial policy proposals, passing many pieces of legislation with industrial policy implications. These include an Infrastructure Law that provides $20 billion in support for clean energy technologies, a Technology Bill that provided $52 billion in targeted support for the semiconductor industry (as well as $170 billion for other research pursuits), and a recent bill allocating $370 billion in mission-oriented spending support of electric vehicles and renewable energy.[81] Such initiatives represent only a fraction of the full agenda initially proposed by Biden as part of the Build Back Better framework, which also included substantial commitments to greater social spending.

In the ambition and rhetoric of Biden's industrial policy, signs can be detected of the intellectual transformations industrial policy proposals underwent in the 1990s. In particular, the reconceptualization Reich made of industrial strategy as a set of measures focused on investing in the American workforce is very evident in the rhetoric of the Biden administration. This can be seen in the way the administration sought to define "infrastructure" as including the social systems that allow people to be productive—thereby presenting proposals such as childcare subsidies, rent control, and college debt cancellation as infrastructure spending. The considerable focus the administration has placed on competition with China and the containment of Chinese industrial policies also evokes the reworking of industrial policy as strategic trade policy, which had been envisaged by Tyson.

Beyond this, the Biden administration's embrace of industrial policy appears to reflect an increasing unwillingness by the American left to accept the constraints imposed by the US political system. Another effect of the Trump years, as well as the highly partisan gridlock that characterized much of the late Obama administration, has been to persuade many progressives that the American constitutional system is broken and in need of fundamental reform. There has thus been a proliferation of proposals on the left for constitutional innovations that would significantly weaken the separation of powers within the US system. From the abolition of the Senate filibuster to court packing and the expansive use of executive power in circumventing congressional oversight, this appears to be a moment where substantial constitutional innovations are being contemplated. In such an environment, it is not surprising that the old objection to industrial policy—that it was not compatible with the American system of government—would cease to have much power on the US left. Although that system of government was the object of widespread support, it was natural that policies judged incompatible with that system would have to be abandoned or modified. Today, in contrast, it is increasingly the US political system, not their economic policy preferences, that American leftists seem inclined to adapt or modify.

CONCLUSION

This article has traced the history of industrial policy ideas in the US from their defeat in the 1980s to the contemporary embrace of such ideas by the Biden administration and much of the US left. The rejection of industrial policy in the 1980s reflected divisions within the US left, widespread optimism about how the growth of venture capital would improve US innovation capacity, and a consensus that a national industrial policy of the kind said to be practiced in Japan was incompatible with US institutions and political culture. Following this defeat however, a movement toward more state-level industrial policy and a reworking of industrial policy proposals to focus more on trade and labor market intervention goals during the Clinton administration kept industrial policy proposals present in a reduced form within the ideational repertoire of the American left. This enabled a revival of industrial policy in the 2010s and 2020s when the financial crisis, the rise of populism, COVID, and growing environmental concerns, together with increasing liberal frustration with the US political system, all combined to make such proposals tenable within American politics.

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NOTES

1. Jeffrey K. Tulis and Nicole Mellow, *Legacies of Losing in American Politics* (Chicago, IL: University of Chicago Press, 2018).

2. Otis L. Graham, Jr., *Losing Time: The Industrial Policy Debate* (Cambridge, MA: Harvard University Press, 1992).

3. Lester C. Thurow, *The Zero-Sum Society: Distribution and the Possibilities for Change* (New York: Basic Books, 1980); Robert Reich, "Why the US Needs an Industrial Policy," *Harvard Business Review* 60 (January–February 1982): 74–81; Ira C. Magaziner and Robert B. Reich, *Minding America's Business: The Decline and Rise of the American Economy* (New York: Harcourt Brace Jovanovich, 1982); Barry Bluestone and Bennett Harrison, *The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industry* (New York: Basic Books, 1982); John Zysman and Laura Tyson, *American Industry in International Competition: Government Policies and Corporate Strategies* (Ithaca, NY: Cornell University Press, 1983).

4. *Industrial Policy Movement in the United States: Is It the Answer? A Staff Study Prepared for the use of the Joint Economic Committee Congress of the United States* (Washington, DC: U.S. Government Publishing Office, 1984), 18–22.

5. John L. Campbell, "Institutional Analysis and the Role of Ideas in Political Economy," *Theory and Society* 27, no. 3 (1998): 377–409.

6. "Joe Biden's Industrial Policy Is Big, Bold and Fraught with Difficulty," *The Economist*, September 13, 2022, https://www.economist.com/united-states/2022/09/13/joe-bidens-industrial-policy-is-big-bold-and-fraught-with-difficulty.

7. Alexander Kaufman, "Democrat's Green New Deal Wing Takes Shape amid Wave of Progressive Climate Hawk Wins," *Huffington Post*, July 11, 2018, https://www.huffingtonpost.co.uk/entry/green-new-deal-progressive-democrats_n_5be26f5be4b0769d24c6a954.

8. Tulis and Mellow, *Legacies of Losing in American Politics*, 1.

9. Tulis and Mellow, 10.

10. Karen Orren and Stephen Skowronek, *The Search for American Political Development* (New York: Cambridge University Press, 2004).

11. Peter A Hall, "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain," *Comparative Politics* 25, no. 3 (1993): 275–96.

12. S. Berman, "Ideational Theorising in the Social Sciences since 'Policy Paradigms, Social Learning and the State,'" *Governance* 26, no. 2 (2013): 217–37; John Hogan and Michael Howlet, "Reflections on Our Understanding of Policy Paradigms and Policy Change," in *Policy Paradigms in Theory and Practice: Discourses, Ideas and Anomalies in Public Policy Dynamics*, ed. John Hogan and Michael Howlett (London: Palgrave Macmillan, 2015), 3–18.

13. Martin B. Carstensen, "Paradigm Man vs. the Bricoleur: An Alternative Vision of Agency in Ideational Change," *European Political Science Review* 3, no. 1 (2011): 147–67.

14. Steve Fraser and Gary Gerstle, ed., *The Rise and Fall of the New Deal Order, 1930-1980*. (Princeton, NJ: Princeton University Press, 1989).

15. Ezra F. Vogel, *Japan as Number One: Lessons for America* (Cambridge, MA: Harvard University Press, 1979); *Japanese and American Economic Policies and US Productivity: Hearings Before the Joint Economic Committee*, 92nd Cong. (1972).

16. Brian Domitrovic, *Econoclasts: The Rebels Who Sparked the Supply-Side Movement and Restored American Prosperity* (Wilmington, DE: Intercollegiate Studies Institute, 2012).

17. Bruce Bartlett, "The Joint Economic Committee in the Early 1980s: Keynesians versus Supply-Siders," *Journal of Policy History* 27, no. 1 (2015): 184–95.

18. Most famously, George H. W. Bush described supply side ideas as "voodoo economics."

19. Mark Blyth, *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century* (Cambridge: Cambridge University Press, 2002); Wesley Widmaier, *Economic Ideas in Political Time: The Rise and Fall of Economic Orders from the Progressive Era to the Global Financial Crisis* (Cambridge: Cambridge University Press, 2016).

20. Graham, *Losing Time: The Industrial Policy Debate.*

21. Graham, *Losing Time.*

22. Paul R. Krugman, "Increasing Returns, Monopolistic Competition, and International Trade," *Journal of International Economics* 9, no. 4 (November 1, 1979): 469–79.

23. Vogel, *Japan as Number One: Lessons for America*; Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975* (Stanford, CA: Stanford University Press, 1982).

24. Brent Cebul, "Supply-Side Liberalism: Fiscal Crisis, Post Industrial Policy and the Rise of the New Democrats," *Modern American History* 2, no. 2 (2019): 139–64.

25. Quoted in Graham, *Losing Time: The Industrial Policy Debate*, 167.

26. Edward Schmults, "Memo to James Baker on Industrial Policy and the 1984 Campaign," 1983, https://www.reaganlibrary.gov/sites/default/files/digitallibrary/smof/cos/cicconi/box-10/40-94-6914308-010-005-2016.pdf.

27. Charles Shultze, "Industrial Policy: A Dissent," *The Brookings Review* (October 1983): 3–12; Robert Lawrence, *Can America Compete?* (Washington, DC: Brookings Institution Press, 1984); Paul R. Krugman, "Targeted Industrial Policies: Theory and Evidence," in *Industrial Change and Public Policy Symposium* (Jackson Hole, WY: Federal Reserve Bank of Kansas City, 1983), 123–56; Graham, *Losing Time*, 118–49.

28. *Industrial Policy, Economic Growth and the Competitiveness of US Industry: Hearings Before the Joint Economic Committee*, 98th Cong., Part 1, 32 (1983).

29. *Industrial Policy, Economic Growth and the Competitiveness of US Industry*, Part 1, 32.

30. Reich, "Why the US Needs an Industrial Policy," 2.

31. Fraser and Gerstle, *The Rise and Fall of the New Deal Order, 1930-1980.*

32. Domitrovic, *Econoclasts: The Rebels Who Sparked the Supply-Side Movement and Restored American Prosperity.*

33. Shultze, "Industrial Policy: A Dissent."

34. Elizabeth Popp Berman, *Thinking Like an Economist* (Princeton, NJ: Princeton University Press, 2022).

35. Robert B. Horwitz, *America's Right: Anti-Establishment Conservatism from Goldwater to the Tea Party* (Cambridge: Polity Press, 2013).

36. *Industrial Policy, Economic Growth and the Competitiveness of US Industry*, Part 1, 52.

37. *Industrial Policy, Economic Growth and the Competitiveness of US Industry*, Part 1, 82.

38. *Industrial Policy: Hearings before the House Banking Subcomittee on Economic Stablization*, 98th Cong., Part 3, 677 (1983).

39. *Venture Capital and Innovation. A Study Prepared for the Use of the Joint Economic Committee, Congress of the US*, 98th Cong., 2d Sess. 24 (1984).

40. *Venture Capital and Innovation*, 51.

41. *Industrial Policy: Hearings Before the House Banking Subcomittee on Economic Stablization*, 98th Cong., Part 4, 71 (1983).

42. Quoted in Graham, *Losing Time*, 167.

43. Joseph L. Badaracco, Jr. and David B. Yoffie, "'Industrial Policy': It Can't Happen Here," *Harvard Business Review* 61 (November–December 1983): 97–105.

44. *Industrial Policy, Economic Growth and the Competitiveness of US Industry: Hearings Before the Joint Economic Committee*, 98th Cong., Part 3, 9 (1983).

45. *Industrial Policy, Economic Growth and the Competitiveness of US Industry: Hearings Before the Joint Economic Committee*, 98th Cong., Part 3, 34.

46. John Dearborn, *Congress and Presidential Representation* (Chicago: Chicago University Press, 2021).

47. Badaracco and Yoffie, "'Industrial Policy': It Can't Happen Here," 14.

48. *Industrial Policy, Economic Growth and the Competitiveness of US Industry: Hearings Before the Joint Economic Committee*, 98th Cong., Part 1, 18, 22.

49. *Industrial Policy: Hearings before the House Banking Subcomittee on Economic Stablization of the Committee on Banking, Finance, and Urban Affairs*, 98th Cong., Part 3, 517 (1983).

50. *The Industrial Policy Movement in the United States: Is It the Answer?* 67.

51. Ira Magaziner, "Rhode Island: The Defeat of the Greenhouse Compact," *New England Journal of Public Policy* 2, no. 1 (1986): 48–72.

52. Narrelle Morris, *Japan-Bashing: Anti-Japanism since the 1980s* (Abingdon: Routledge, 2011).

53. Douglas A. Irwin, *Clashing over Commerce: A History of US Trade Policy* (Chicago: University of Chicago Press, 2017), chap. 12.

54. Kent H. Hughes, *Building the Next American Century: The Past and Future of American Economic Competitiveness* (Baltimore, MD: John Hopkins University Press, 2005).

55. Robert B. Reich, *The Work of Nations : Preparing Ourselves for 21st-Century Capitalism* (A. A. Knopf, 1991); Laura Tyson, *Who's Bashing Whom? Trade Conflict in High-Technology Industries* (Washington, DC: Peterson Institute for International Economics, 1992).

56. Tyson.

57. Robert Reich, "Who Is Us?" *Harvard Business Review*, 1990.

58. Reich.

59. *Industrial Policy: Hearings Before the House Banking Subcomittee on Economic Stablization*, 98th Congress," Part 3, 514 (1983).

60. Cebul, "Supply-Side Liberalism: Fiscal Crisis, Post Industrial Policy and the Rise of the New Democrats."

61. Kent H. Hughes, *Building the Next American Century: The Past and Future of American Economic Competitiveness* (Baltimore, MD: John Hopkins University Press, 2005).

62. Michael Schrage, "Clinton's Budget Makes an Art of Funding Science and Technology," *Washington Post*, February 11, 1994, https://www.washingtonpost.com/archive/business/1994/02/11/clintons-budget-makes-an-art-of-funding-science-and-technology/c5aa6420-896c-4f37-bb26-080cb179672a/.

63. Cebul, "Supply-Side Liberalism: Fiscal Crisis, Post Industrial Policy and the Rise of the New Democrats," 161.

64. Bill Clinton, "Statement on Signing the Taxpayer Relief Act of 1997," in *The American Presidency Project* (online), ed. John Woolley and Gerhard Peters, https://www.presidency.ucsb.edu/documents/statement-signing-the-taxpayer-relief-act-1997.

65. David Welna, "Times Have Changed since Reagan's 1986 Tax Reform," *NPR*, October 17, 2011, 2.

66. Statement on behalf of the *National Venture Capital Association*, submitted to the House Committee on Ways and Means, February 5, 1992.

67. Manufacturing Alliance for Productivity and Innovation, *Why U.S. Companies are at a Competitive Disadvantage* (1991), 1.

68. John Kunkel, *American Trade Policy Towards Japan: Demanding Results* (London: Routledge, 2003), chap. 9.

69. David Lauter, "Clinton Unveils $13-Billion Job Training, Counseling Bill," *Los Angeles Times*, March 10, 1994, https://www.latimes.com/archives/la-xpm-1994-03-10-mn-32331-story.html.

70. Robert Wade, "Return of Industrial Policy?" *International Review of Applied Economics* 26, no. 2 (2012): 223–39.

71. Jon Bloomfield and Fred Steward, "The Politics of the Green New Deal," *The Political Quarterly* 91, no. 4 (2020): 770–79.

72. Adele Morris, Pietro Nivola, and Schultze Charles, "Clean Energy: Revisiting the Challenges of Industrial Policy," *Energy Economics* 34, no. 1 (2012): 34–43.

73. David Popp et al., "The Employment Impact of a Green Fiscal Push. Evidence from the American Recovery and Reinvestment Act," *Brookings Papers on Economic Activity*, 2021, 1–69.

74. David Ikenson, "GE and Obama: A Betrothal at the Altar of Industrial Policy," Cato Commentary, 2011, https://policycommons.net/artifacts/1303632/ge-and-obama/1906924/.

75. Chris Good, "The Solyndra Scandal: What It Is and Why It Matters," *The Atlantic*, September 15, 2011.

76. Nicola Nymalm, *From "Japan Problem" to "China Threat"? Rising Powers in US Economic Discourse* (London: Palgrave Macmillan, 2020).

77. "Robert Lighthizer," in *Hearing: Evaluating China's Past and Future Role in the World Trade Organisation, Panel II, U.S. and Chinese Expectations for China's Entry in the WTO* (The U.S.-China Economic and Security Review Commission, 2010), https://www.uscc.gov/hearings/hearing-evaluating-chinas-past-and-future-role-world-trade-organization.

78. Paul Blustein, *Schism: China, America and the Fracturing of the Global Trading System* (Waterloo, ON: Centre for International Governance Innovation, 2019).

79. Chad P. Bown, "How COVID-19 Medical Supply Shortages Led to Extraordinary Trade and Industrial Policy," *Asian Economic Policy Review* 17, no. 1 (2021): 114–35.

80. William Bonvillian, *Emerging Industrial Policy Approaches in the United States*, Information Technology & Innovation Foundation, October 4, 2021, https://itif.org/publications/2021/10/04/emerging-industrial-policy-approaches-united-states/.

81. "Joe Biden's Industrial Policy Is Big, Bold and Fraught with Difficulty."