

Apr. 2026

Public Factories

Public Factories

Joel Dodge & Ganesh Sitaraman***

The United States is confronting a new era of recurring shortages and risky geopolitical dependencies in essential goods, from medical supplies to semiconductors, revealing vulnerabilities in globalized supply chains and market-driven production. Scholars and policymakers have debated a range of tools to address scarcity: from tariffs and derisking subsidies and tax credits to reshore production, to deregulation and de-proceduralization to speed production, to competition policies to diversify production.

In this Article, we offer another approach to the problem of scarcity and at-risk supply: public factories. Public factories are government-owned production facilities that exist to provide (or expand) the supply of important goods. Perhaps surprisingly, throughout American history the U.S. federal government, states, and localities have regularly turned to public factories to produce important goods across defense, steel, agriculture, healthcare, and other sectors. We describe this forgotten American tradition from the founding of the country until the present.

As a policy tool, public factories have a variety of benefits, and some drawbacks and tradeoffs. Drawing on historical examples, we offer a theory of public factories, including explaining why public factories have been deployed and how they have been and can be designed. We argue, again surprisingly, that when implemented well, public factories may be more efficient and effective than subsidizing private manufacturing.

Public factories are also a particularly ripe tool for policymakers today. In the post-Cold War, post-neoliberal era, policymakers may be more willing to embrace public action to improve supply than they have been in decades. Public factories also address many of the drawbacks of tariffs and derisking policies like subsidies. And they offer a path through the abundance-antimonopoly debate, by providing a strategy that can increase supply while enhancing competition. We conclude by outlining a few pathways by which public factories could also be adopted with and without new federal legislation, thus making them a practical and politically viable addition to the production toolkit.

* Director of Industrial Policy and Economic Security, Vanderbilt Policy Accelerator, Vanderbilt University.

** New York Alumni Chancellor's Chair in Law & Director of the Vanderbilt Policy Accelerator, Vanderbilt University. For helpful conversations and comments, we are grateful to Aaron Baum, Andrew Bossie, Mary Bridges, Dana Brown, Ben Dinovelli, Andrew Elrod, Jeff Gordon, Suzanne Kahn, Joel Michaels, Margaret Mullins, Saule Omarova, Asad Ramzanali, Chris Serkin, and Mark Wilson.

CONTENTS

INTRODUCTION	1
I. THE AMERICAN TRADITION OF PUBLIC FACTORIES	7
A. <i>Defense Supplies</i>	7
1. From the Revolution to the 1930s.....	8
2. From World War II to the Present.....	16
B. <i>Industrial Goods and Services</i>	23
1. Steel	24
2. Agricultural Fertilizer	27
3. Asphalt and Cement	30
4. Commodities Processing	32
5. Printing	34
C. <i>Consumer Goods and Services</i>	35
1. Medicines and Vaccines	36
2. Ice Plants	39
3. Milk Plants	41
4. Fertilizer	42
5. Alcohol.....	43
6. Factories for Economic Development.....	44
II. THE CASE FOR PUBLIC FACTORIES	46
A. <i>Why Public Factories?</i>	46
1. Essential Production	46
2. Developmentalism, Abundance, and Innovation	49
3. Competition and Antimonopoly	51
4. Efficiency	52
5. Public Control and Responsibility	56
6. Public Assets	57
B. <i>Designing Public Factories</i>	58
1. Who Builds?.....	58
2. Production Goals and Levels.....	60
3. Financing	61
4. Location, Workforce, and Staffing	63
5. Sunsetting.....	64
C. <i>The Public-Private Debate</i>	65
1. Skepticism of Public Factories	65
2. Responses to Skeptics	67
III. THE FUTURE OF PUBLIC FACTORIES	72
A. <i>The Post-Cold War, Post-Neoliberal Era</i>	73
B. <i>De-Risking, Tariffs, and the New Industrial Policy</i>	78
C. <i>The Abundance-Antimonopoly Debate</i>	84
D. <i>The Legal Pathways for Public Factories</i>	87
CONCLUSION	89

INTRODUCTION

The United States has entered an era of short supply. In recent years, the country has faced shortages that have been acute and episodic: Bottlenecks and plant closures have led to a scarcity of semiconductors,¹ baby formula,² IV bags,³ and ventilators.⁴ Others are chronic and structural: The United States has failed to produce enough housing,⁵ has struggled to build out clean energy infrastructure,⁶ has lost its capacity for ocean-vessel shipbuilding,⁷ and has allowed China to dominate production for a wide range of critical and strategic goods.⁸ So far, these shortfalls and vulnerabilities have disrupted Americans' daily lives, jeopardized the country's economic security, stoked inflation, and shaped our politics. Absent some policy change, similar shortages are likely to persist in the future as extreme weather, geopolitical tensions, pandemics and diseases, and other ruptures disrupt the global movement of goods.⁹

Scarcity of market production is, of course, not surprising. As a matter of basic economic theory, the private market on its own will under-produce some

¹ See Don Clark, *'It's a Roller-Coaster Ride': Global Chip Shortage Is Making Industries Sweat*, N.Y. TIMES (Apr. 15, 2021), <https://www.nytimes.com/2021/04/15/technology/computer-chip-semiconductor-shortage.html>.

² See David Leonhardt, *The Baby Formula Crisis*, N.Y. TIMES (May 13, 2022), <https://www.nytimes.com/2022/05/13/briefing/baby-formula-shortage-us-economy.html>.

³ See Christina Jewett, *U.S. Races to Replenish Storm-Battered Supplies of IV Fluids at Hospitals*, N.Y. TIMES (Oct. 9, 2024), <https://www.nytimes.com/2024/10/09/health/hurricane-helene-iv-shortages.html>.

⁴ See Sarah Kliff & Adam Satariano, *There Aren't Enough Ventilators to Cope With the Coronavirus*, N.Y. TIMES (Mar. 18, 2020), <https://www.nytimes.com/2020/03/18/business/coronavirus-ventilator-shortage.html>.

⁵ See *Housing Supply: Still Undersupplied by Millions of Units*, FREDDIE MAC (Nov. 26, 2024), <https://www.freddiemac.com/research/insight/housing-supply-still-undersupplied>.

⁶ See Nadja Popovich & Brad Plumer, *Why the U.S. Electric Grid Isn't Ready for the Energy Transition*, N.Y. TIMES (Jun. 12, 2023), <https://www.nytimes.com/interactive/2023/06/12/climate/us-electric-grid-energy-transition.html>.

⁷ See Arnav Rao, *How America Lost Control of the Seas*, ATLANTIC (May 28, 2025), <https://www.theatlantic.com/economy/archive/2025/05/american-shipbuilding-decline/682945/>.

⁸ See, e.g., Keith Bradsher, *Step by Step, How China Seized Control of Critical Minerals*, N.Y. TIMES (Oct. 27, 2025), <https://www.nytimes.com/2025/10/27/business/china-rare-earth-export-controls.html>.

⁹ See Ganesh Sitaraman, *A Grand Strategy of Resilience*, FOREIGN AFFS. (Sept./Oct. 2020), <https://www.foreignaffairs.com/articles/united-states/2020-08-11/grand-strategy-resilience>.

goods and under-value the economic resilience of others.¹⁰ In recent decades, profit maximization has also shifted firms toward lean inventories, just-in-time production, and the lowest-cost manufacturing jurisdictions, regardless of national interests.¹¹ Accordingly, repatriating production requires policy intervention. Policymakers across the ideological spectrum have thus advocated for and tried to increase domestic manufacturing, particularly in critical sectors for national security.¹²

Scholars and policy analysts have commented on and theorized these developments, while also proposing a range of legal and policy interventions. Notable recent accounts largely fall into four categories. First, some have emphasized industrial policy,¹³ implemented primarily via tax policy, grants, loans, and procurement,¹⁴ as part of a strategy for “derisking” capital

¹⁰ See PAUL KRUGMAN & ROBIN WELLS, *ECONOMICS* 124 (4th ed. 2015); see also Richard Baldwin & Rebecca Freeman, *Risks and Global Supply Chains: What We Know and What We Need to Know*, NBER Working Paper No. 29444 (Nat'l Bureau of Econ. Research Oct. 2021), <https://doi.org/10.3386/w29444>.

¹¹ See, e.g., Anthea Roberts, *From Risk to Resilience*, FOREIGN AFFS. (Oct. 24, 2023), <https://www.foreignaffairs.com/world/risk-resilience-economics>; David Dayen & Rakeen Mabud, *How We Broke the Supply Chain*, AM. PROSPECT (Jan. 31, 2022), <https://prospect.org/economy/how-we-broke-the-supply-chain-intro/>; see generally BARRY C. LYNN, *END OF THE LINE: THE RISE AND COMING FALL OF THE GLOBAL CORPORATION* (2005).

¹² See, e.g., Brian Deese, National Economic Council Director, *Remarks on Executing a Modern American Industrial Strategy*, WHITE HOUSE (Oct. 13, 2022), <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/10/13/remarks-on-executing-a-modern-american-industrial-strategy-by-nec-director-brian-deese/>; see also Jake Sullivan, National Security Advisor, *Remarks on Renewing American Economic Leadership at the Brookings Institution*, WHITE HOUSE (Apr. 27, 2023), <https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/04/27/remarks-by-national-security-advisor-jake-sullivan-on-renewing-american-economic-leadership-at-the-brookings-institution/>; Marco Rubio, *Industrial Policy, Right and Wrong*, NAT'L AFFS. (Spring 2024), <https://www.nationalaffairs.com/publications/detail/industrial-policy-right-and-wrong>; Alexandra Stevenson, *Trump Wants America to Make Things Again. Does It Have What It Takes?*, N.Y. TIMES (Jun. 4, 2025), <https://www.nytimes.com/2025/06/04/business/trump-us-manufacturing.html>. For a journalistic account of these developments, see RANA FOROOHAR, *HOME COMING: THE PATH TO PROSPERITY IN A POST-GLOBAL WORLD* (2022).

¹³ For a helpful definitional discussion, see Todd Tucker, *Industrial Policy and Planning: What It Is and How to Do It Better*, ROOSEVELT INST. (Jul. 30, 2019), <https://rooseveltinstitute.org/publications/industrial-policy-and-planning/>.

¹⁴ Amy Kapczynski & Joel Michaels, *Administering a Democratic Industrial Policy*, 18 HARV. L. & POL'Y REV. 279 (2024); Jeff Gordon & Doni Bloomfield, *The Law and Economics of Resilience*, WASH. U. L. REV. (forthcoming 2026); Ashley Deeks & Andrew Hayashi, *Tax Law as Foreign Policy*, 170 U. PA. L. REV. 275 (2022). For an account on the downsides of this approach, without sufficient checks, see Lenore Palladino, *The Need for Corporate Guardrails in U.S. Industrial Policy*, 47 SEATTLE U. L. REV. 581 (2024).

investment.¹⁵ The Biden administration’s CHIPS and Science Act and Inflation Reduction Act are examples of this approach.¹⁶ Second, more internationally-focused scholars and commentators have emphasized trade policy and tariffs,¹⁷ the relationship between economic policy and national security exceptions in international law,¹⁸ and the great power rivalry dimensions of these challenges.¹⁹ The Trump administration’s expansive use of tariffs on foreign-produced goods is the paradigmatic example for this group.²⁰ A third group, advocates for “abundance,” have argued that excessive regulation, democratic voice, and proceduralism have constrained new supply.²¹ They hold that the best way forward is to reduce bureaucratic red tape, in the form of conditions on building, procedures for building, and participatory processes—all of which can delay building projects. The final group focuses primarily

¹⁵ See DANIELA GABOR, *THE (EUROPEAN) DERISKING STATE* (2023), <https://doi.org/10.31235/osf.io/hpbj2>. For an application of the derisking idea in the energy context, see Shelley Welton & Conor Harrison, *Lessons in Climate Derisking: The United States’ Failed Nuclear Renaissance*, 173 U. PA. L. REV. 705 (2025).

¹⁶ See Inflation Reduction Act, Pub. L. No. 157-169, 136 Stat. 1818 (2022); CHIPS and Science Act, Pub. L. No. 117-167, 136 Stat. 1366 (2022).

¹⁷ Kathleen Claussen & Timothy Meyer, *Economic Security and the Separation of Powers*, 172 U. PA. L. REV. 1955 (2024); Timothy Meyer & Ganesh Sitaraman, *Trade and the Separation of Powers*, 107 CALIF. L. REV. 583 (2019); Timothy Meyer, *Trade, Redistribution, and the Imperial Presidency*, 44 YALE J. INT’L L. ONLINE 16 (2018); Timothy Meyer, *Free Trade, Fair Trade, and Selective Enforcement*, 118 COLUM. L. REV. 491 (2018).

¹⁸ Mona Paulsen, *The Past, Present, and Future of Economic Security*, 50 YALE J. INT’L L. 222 (2025); J. Benton Heath, *The New National Security Challenge to the Economic Order*, 129 YALE L.J. 1020 (2020); Kathleen Claussen, *Trade’s Security Exceptionalism*, 72 STAN. L. REV. 1097 (2020).

¹⁹ Anthea Roberts, Henrique Choer Moraes & Victor Ferguson, *Toward a Geoeconomic Order*, 22 J. INT’L ECON. L. 4 (2019); Ming Du, *International Economic Law in the Era of Great Power Rivalry*, 57 VAND. J. TRANSNAT’L L. 723 (2024).

²⁰ Julian Arato, Kathleen Claussen & Timothy Meyer, *The ‘America First Trade Policy’ in Practice*, 119 AM. J. INT’L L. 668 (2025).

²¹ On abundance, see EZRA KLEIN & DEREK THOMPSON, *ABUNDANCE* (2025); see also Ezra Klein, *The Economic Mistake the Left Is Finally Confronting*, N.Y. TIMES (Sept. 19, 2021), <https://www.nytimes.com/2021/09/19/opinion/supply-side-progressivism.html>; Ezra Klein, *The Problem with Everything-Bagel Liberalism*, N.Y. TIMES (Apr. 2, 2023), <https://www.nytimes.com/2023/04/02/opinion/democrats-liberalism.html>. For scholarly engagement, see Nicholas Bagley, *The Procedure Fetish*, 118 MICH. L. REV. 345 (2019); Leah Brooks & Zachary D. Liscow, *Infrastructure Costs*, 15 AM. ECON. J. 1 (2023). See also J.B. Ruhl & James Salzman, *The Greens’ Dilemma: Building Tomorrow’s Climate Infrastructure Today*, 73 EMORY L.J. 1 (2023) (noting the tension between Green proceduralist laws and the imperative to build new Green energy quickly).

on concentration, consolidation, and financialization as a major cause and antimonopoly policies as the path forward.²²

Each of these four approaches has its appropriate uses, but they are all blunt instruments that rely on indirect mechanisms to generate domestic production: a carrot-and-stick incentive structure that either punishes foreign manufacturers or coaxes domestic ones, changes to legal and regulatory policies that would indirectly ease building, or reforms to corporate structures and finance to ultimately expand the number of firms, change their behavior to prevent stifling growth, and reshape the way they spend toward greater investment. These tools can also be challenging to execute. Policymakers must allocate the correct value of subsidy (or tariff) to change firm behavior—a figure that can be a moving target as market conditions shift—or they must rewrite regulatory rules. Even then, these approaches still rely on the investment calculus of private profit-driven firms aligning with public policy goals. This is problematic because firms may well change course from reshoring or expanding production if shifting business conditions alter their profit calculations.²³

In this Article, we offer another approach to the problem of scarcity and short-supply: public factories. Public factories are just that: government-owned production facilities that exist to provide (or expand) the supply of important goods. Perhaps surprisingly, public factories have quietly begun re-entering the industrial policy discourse in recent years on both sides of the aisle: Democratic lawmakers have advocated for public manufacturing of pharmaceutical drugs,²⁴ and Republican lawmakers have endorsed public production of military drones.²⁵ Perhaps even more surprisingly, this is not a historical anomaly. Throughout American history—from the founding of the country until the present—the federal government, states, and localities have repeatedly and regularly turned to public factories to produce important goods.

Part I tells this forgotten history and in the process recovers the American tradition of public factories. In the defense sector, public factories predate the Republic, with the Continental Congress encouraging states to create their own factories during the Revolutionary War. After the war, President George

²² See, e.g., Matt Stoller, *How to Prepare for the Coming Supply Chain Shock*, BIG (Apr. 25, 2025), <https://www.thebignewsletter.com/p/how-to-prepare-for-the-coming-supply>; Matt Stoller, *Monopoly Round Up: Tariffs, Abundance, and Why American Can't Build*, BIG (Mar. 30, 2025), <https://www.thebignewsletter.com/p/monopoly-round-up-tariffs-abundance>.

²³ See *infra* Section II.A.

²⁴ Affordable Drug Manufacturing Act of 2018, S. 3775, 115th Cong. (2018).

²⁵ SkyFoundry Act of 2025, S. 2506, 119th Cong. (2025).

Washington and Secretary of the Treasury Alexander Hamilton successfully advocated for the creation of armories—government-owned weapons factories—in the 1790s to reduce the military’s dependence on lackluster private production and risky foreign supply chains. Public factories played a decisive role in the Civil War, giving the Union critical battlefield advantages. World War I saw a considerable expansion of public factories, including for the U.S. to catch up in the production of commercial shipping vessels and naval ships. During World War II, the government built and owned the vast majority of new industrial plants needed for military mobilization: the arsenal—and industry—needed for democracy to defeat fascism. But public factories have not just been deployed for the national defense and warfighting. The United States and its subdivisions have created public factories for key inputs to assist industry with the domestic production. Public factories have also produced goods for consumers, ranging from ice, milk, and flour, to medicines and vaccines, and even alcoholic beverages. These factories are not unique to one region or geography or one period of time, nor has one political party been their sole champion.

As a policy tool, public factories have a variety of benefits, and like any policy tool, some drawbacks and tradeoffs as well. Based on this history, in Part II, we outline the case for public factories, including explaining why public factories have been deployed and how they have been structured. Public factories have generally been adopted in order to ensure the production of essential goods, encourage domestic development and innovation, and spur competition and provide positive economic spillovers. They also have important benefits compared to subsidizing private factories: they directly lead to production of the needed goods, rather than relying on private intermediaries with different incentives; they are more efficient in that some of the funding is not captured in the form of private profits; and they make the government’s role salient, enabling political feedback and ensuring that government gets credit for helping people and the economy. As a matter of design, public factories can be owned and operated by the government (“GOGOs”) or government-owned but operated by a private contractor (“GOCOs”). There are tradeoffs between these two approaches, but both have been deployed successfully. We also discuss practical issues facing public factories including financing, staffing, production levels, location, and sunset. Part II concludes with an overview of some of the commonly raised drawbacks and risks of public factories, with a particular focus on management issues and on limiting principles.

Having offered a wide-ranging history and explored the theoretical, normative, and practical dimensions of public factories, Part III returns to the present and to contemporary debates in law, political economy, and public

PUBLIC FACTORIES

policy on supply shortages, economic security, and industrial policy. We first argue that the time is ripe for a revival of public factories. Public factories were largely jettisoned during the market-versus-socialistic ideological contest of the Cold War, and they remained disfavored in the neoliberal era, which is unsurprising given that period's preference for privatization, austerity, and trade liberalization. But the current geopolitical moment is very different: the Cold War is in the rear-view mirror, the neoliberal consensus has collapsed, and COVID-19 and a rising China have focused policymakers on right and left on the imperative of domestic production. Second, we argue that public factories have a range of underappreciated benefits when compared to both subsidies and tariffs. These latter legal and policy tools can be challenging to administer (in terms of setting the rates), are indirect and do not guarantee production, and raise serious risks of capture and corruption. Public factories, while not perfect, do not suffer from these downsides. Third, public factories are a potential area of agreement in the abundance-antimonopoly debate. Abundance advocates want more production, but tend to focus on deregulatory means to get there. Antimonopoly advocates want to increase competition and fear expansions of corporate power. Public factories address both at once: they expand productive capacity immediately, without enhancing corporation power and while simultaneously (depending on the sector) introducing new competition. Finally, given these benefits, we briefly outline some of the legal pathways by which new public factories could be created. Perhaps most notably, we suggest how federal public factories could be created without new legislation using the Defense Production Act.

A few notes and caveats are also in order. This Article makes three important contributions to the existing industrial policy literature. First, so far as we are aware, it marks the first attempt to holistically collect and disperse uses of public factories across American history. While there have been historical accounts of particular public factories or narrow periods of time in which public factories have been deployed, we canvass and bring together this history from the founding until the present day. This history enables us to outline the case for public factories, wrestling with policy and design questions that policymakers have encountered in the past. This is our second contribution. In particular, we describe the goals, benefits, drawbacks, and design issues confronting policymakers interested in public factories. Notably, we also argue that, when implemented well, public factories can be more efficient and effective than subsidizing private factories. Finally, we argue that public factories are a particularly ripe tool for policymakers today. They address the problems with other industrial policies—and they can be implemented at the state and local level, and in some cases, without federal legislation.

It is also worth stating clearly: we do not mean to say that public factories are always ideal, desirable, or even net positive. And we do not mean to say that alternatives to public factories are always problematic. We believe that all of these tools have benefits, drawbacks, and tradeoffs and, of course, much will depend on context and implementation. But we believe public factories have a surprisingly long and consistent track record of use and success and that they have a range of underappreciated benefits. This makes public factories a worthy addition to the industrial policy toolkit.

Finally, this paper is limited to public factories, meaning publicly-owned plants and facilities that manufacture physical products. Recognizing that policymakers have undertaken and proposed a wide manner of economic policies involving forms of public ownership, other less-tangible forms of public production—such as of energy or general scientific discovery—are beyond the scope of this paper. The paper’s theoretical insights into public factories, however, may nonetheless be relevant to debates concerning these other forms of public production.

I. THE AMERICAN TRADITION OF PUBLIC FACTORIES

The United States has a long, underappreciated history of using public factories to produce critical goods. Government-owned production facilities have been deployed to produce defense-related supplies; industrial goods and services, from steel and fertilizer to flour processing; and consumer goods and services from medicines to ice. Notably, American public factories have operated at all levels of government—federal, state, and local. This Part recounts the history and tradition of public factories in the United States.

A. *Defense Supplies*

Military weaponry and other materials essential to the national defense have long been understood to be of paramount concern to the security and survival of the United States. Accordingly, from the time of the country’s creation, policymakers have repeatedly looked to public factories as a way to produce munitions, weapons, and other defense supplies. This tradition roots back to the founding era, in which the need for public factories for weapons became clear during and after the Revolutionary War. Public factories also played a significant role in supporting the Union army during the Civil War, and were central to defense mobilization during World War I and World War II. In the latter conflict, a dedicated and agile government agency built and retained ownership over a significant share of the country’s industrial expansion. Since that time, defense-related public factories have become less prominent, but some public factories have remained part of the defense-industrial base, despite the widespread turn toward privatization.

1. *From the Revolution to the 1930s*

During the Revolutionary War, the thirteen colonies and then newly-independent United States mounted a major economic mobilization to produce sufficient materials for the war effort.²⁶ The colonies had been reliant on Great Britain for many of their manufactured goods, including textiles.²⁷ The revolutionaries responded with multiple lines of action: alliances and trade with the French²⁸ and decentralized homespun production, including for fabrics for uniforms and other military purposes.²⁹

They also created public factories. In February 1776, the Continental Congress passed a resolution directly promoting the creation of public factories for the production of critical war materials like gunpowder, “recommend[ing] to the Assemblies, Conventions, or Councils of Safety of every Colony, forthwith to erect Powder Mills in their respective Colonies . . . at the expence of such Colonies.”³⁰ The state of Pennsylvania, for example, had previously responded to Britain’s 1774 export controls on the colonies by promoting in-state production of gunpowder, offering private producers loans, access to key inputs, and guaranteed purchase and pricing.³¹ In 1776, fearing that the private gunpowder mills in progress would take too long to build, Pennsylvania supplemented its industrial policy with a state-owned and -operated gunpowder mill: the Continental Powder Mill, a public factory

²⁶ See JOHN J. MCCUSKER & RUSSELL R. MENARD, *THE ECONOMY OF BRITISH AMERICA, 1607-1789* 363 (1985) (describing the war as prompting a “diversion of resources into the indigenous production of goods and services that had previously been purchased abroad”); *id.* at 364 (“The war effort itself directly encouraged ... [the] advance in native industry by creating a variety of new prospects for merchants, manufacturing artisans, and farmers.”).

²⁷ See *id.* at 309.

²⁸ See JONATHAN R. DULL, *A DIPLOMATIC HISTORY OF THE AMERICAN REVOLUTION* 57 (1985).

²⁹ See MCCUSKER & MENARD, *supra* note 26, at 363; see also ROBERT MIDDLEKAUFF, *THE GLORIOUS CAUSE: THE AMERICAN REVOLUTION, 1763-1789* 200 (1982) (“[N]onimportation [of British goods] ... spurred home manufacturing. [...] [S]mall-scale manufacturers of clothing and household articles appeared in greater numbers than ever before.”). One notable example is Betsy Ross, whose homespun scrap fabrics formed the first flag of the United States.

³⁰ Continental Cong., *Resolutions on Saltpeter and Powder Mills* (Feb. 23, 1776), in *Founders Online*, NAT’L ARCHIVES, <https://founders.archives.gov/documents/Adams/06-04-02-0001-0002>.

³¹ David L. Salav, *The Production of Gunpowder in Pennsylvania during the American Revolution*, 99 PA. MAG. OF HIST. & BIOGRAPHY 422, 432 (Oct. 1975). These public supports were common industrial mobilization policies during the revolutionary era. See MCCUSKER & MENARD, *supra* note 26, at 364 (“Congress and the several state governments supported [military-related] manufactures in a number of ways, through loans and subsidies, guaranteed markets at set prices, land grants, monopoly privileges, and the like.”).

significantly larger than the private mills, with higher output capacity.³² (In 1777, less than a year after becoming operational, the government mill was destroyed in an explosion that the mill’s manager suspected may have been an act of sabotage.³³)

The Continental Army also established small-scale arms production sites. In 1776, colonel Henry Knox—who would go on to serve as the United States’ first Secretary of War—selected Springfield, Massachusetts, as the site for a continental arsenal to store military supplies and house a workshop for repairs and minor production.³⁴ (This federal site would later be expanded into the Springfield Armory.³⁵) State governments took action as well, setting up public factories to produce materials needed for the war effort. Virginia, for example, established three public ropemaking factories, “ropewalks,” to help supply naval ships.³⁶

The Revolutionary War experience also influenced the views and policies of notable leaders in the founding generation. During the war, all weaponry furnished in the United States was purchased from private contractors and importers.³⁷ This exposed the colonies to two vulnerabilities: First, in October 1774, Britain banned the export of arms and ammunition to the colonies and attempted to enforce a naval embargo.³⁸ Second, the quality of privately-manufactured arms was uneven, and contractors engaged in rampant profiteering.³⁹ To address these vulnerabilities, Alexander Hamilton became a strong advocate for public production of weaponry; in 1783, he authored a report to Congress recommending the creation of “public manufactories of arms, powder, etc.”⁴⁰ In his 1791 *Report on Manufactures*, Hamilton again urged Congress to consider “whether manufactories of all the necessary weapons of war ought not to be established[] on account of the Government

³² *Id.* at 435-36; see also Pa. Col. Recs., X, 488 (Feb. 16, 1776), available at <https://babel.hathitrust.org/cgi/pt?id=nyp.33433115611596&seq=504> (“Resolved, that under the authority given by Congress, this Board immediately proceed to erect on account of the Congress, a Powder Mill on a large stream, capable of manufacturing as nearly as possible, four Tons of Gunpowder per week.”).

³³ Salav, *supra* note 31, at 438.

³⁴ H.W. Schull, *Springfield Armory*, 9 ARMY ORDNANCE 1, 1-2 (Jul.-Aug. 1928).

³⁵ See *infra* note 48 and accompanying text.

³⁶ G. Melvin Herndon, *A War-Inspired Industry: The Manufacture of Hemp in Virginia during the Revolution*, 74 VA. MAG. OF HIST. & BIOGRAPHY 301, 307-08 (1966).

³⁷ Merritt Roe Smith, *George Washington and the Establishment of the Harpers Ferry Armory*, 81 VA. MAG. OF HIST. & BIOGRAPHY 415, 416 (1973).

³⁸ BERNHARD KNOLLENBERG, GROWTH OF THE AMERICAN REVOLUTION: 1766-1775 169 (1975).

³⁹ Smith, *supra* note 37, at 416.

⁴⁰ THE WORKS OF ALEXANDER HAMILTON VOL. VI 476 (Henry Cabot Lodge ed.) (1904).

itself[.]”⁴¹ He believed defense supplies were simply too vital to leave up to the whims of private production: “Such establishments are agreeable to the usual practice of Nations and that practice seems founded on sufficient reason. There appears to be an improvidence[] in leaving these essential instruments of national defence to the casual speculations of individual adventure[.]”⁴²

Following the Revolutionary War, Washington too sought to secure the country’s weapons supply chain from any future arms embargo.⁴³ He and Hamilton concluded that a series of armories—government-owned factories for military weapons—was needed to ensure the resilience and quality of the country’s armaments.⁴⁴ In his 1793 annual address to Congress, Washington said the nation could ill afford a “reputation of weakness. . . . [I]f we desire to secure peace, one of the most powerful instruments of our rising prosperity, it must be known that we are at all times ready for war.”⁴⁵ In a private memorandum drafted in preparation for the address, Washington wrote: “The utility of establishing proper Arsenals unfolds itself more and more every day. . . . A War, at any time, would evince the impropriety of such a neglect.”⁴⁶ At his urging, Congress passed legislation authorizing the creation of national armories and navy yards.⁴⁷ The United States soon built a series of navy yards (including in Brooklyn, New York; Philadelphia, Pennsylvania; and Norfolk, Virginia) and armories for manufacturing weapons (in Springfield, Massachusetts, and Harpers Ferry, Virginia).⁴⁸

Washington’s concerns about the resilience of the country’s arms supply chain proved prescient. In the early 1800s, with Europe embroiled in the Napoleonic Wars, it became exceedingly difficult for the United States to

⁴¹ Alexander Hamilton, *Report on the Subject of Manufactures*, in THE REPORTS OF ALEXANDER HAMILTON 184 (Jacob E. Cooke ed. 1964).

⁴² *Id.*

⁴³ Smith, *supra* note 37, at 417.

⁴⁴ *Id.*

⁴⁵ George Washington, *Fifth Annual Address to Congress*, AM. PRESIDENCY PROJ. (Dec. 3, 1793), <https://www.presidency.ucsb.edu/documents/fifth-annual-address-congress>.

⁴⁶ GEORGE WASHINGTON, 33 THE WRITINGS OF GEORGE WASHINGTON 160-61 (John C. Fitzpatrick ed. 1940). The proposed arsenals—at the time, meaning storage facilities for military supplies—would include on-site armories for the production of weapons. *See infra* note 47.

⁴⁷ An Act to provide for the erecting and repairing of Arsenals and Magazines, and for other purposes, 3 Cong. Ch. 14, 1 Stat. 352 (1794) (authorizing the President to establish several national arsenals to store military arms and to “establish[] at each of the aforesaid arsenals, a national armory”); An Act to provide a Naval Armament, 3 Cong. Ch. 12, 1 Stat. 350 (1794) (authorizing the President to “provide, by purchase or otherwise, . . . four ships” for a naval force); *see also* Smith, *supra* note 37, at 417.

⁴⁸ MARK R. WILSON, THE BUSINESS OF CIVIL WAR: MILITARY MOBILIZATION AND THE STATE, 1861–1865 74 (2010) (hereinafter “WILSON, BUSINESS OF CIVIL WAR”).

import arms from abroad.⁴⁹ To maintain the country's weapons stock, Congress passed legislation authorizing President Thomas Jefferson to "erect such additional arsenals and manufactories of arms, as he may deem expedient[.]"⁵⁰ Jefferson later told Congress that the country's military must be "prepared to repel a powerful enemy at every point of our territories exposed to invasions."⁵¹ The trade disruptions caused by conflict in Europe had therefore "induced us to direct our whole efforts to the means of internal supply [of arms]," he said.⁵² Directly referencing Congress's legislation that year authorizing the president to expand the government arms manufactories, Jefferson added, "[T]he public factories have therefore been enlarged [and] additional machineries erected[.]"⁵³ This investment in public factories for arms helped secure the United States' military supplies when conflict with Britain erupted into the War of 1812; because of the country's growing network of government-owned and -operated armories—reaching five in total during the war—the "government was able to manufacture and repair small arms, produce ammunition, and test powder and ammunition."⁵⁴

During the Civil War, the government-run Springfield Armory was the primary supplier of firearms to the Union army.⁵⁵ One wartime commentator called Springfield the "largest, best appointed, and altogether the most productive establishment for the manufacture of small arms in the world[.]" observing that its rifled musket was "justly regarded as the most perfect arm of its kind which has ever been produced."⁵⁶ During the war, the Springfield Armory produced 300,000 rifles per year, at about half the unit cost charged to the government by private arms producers.⁵⁷

⁴⁹ Thomas Jefferson, Letter from Thomas Jefferson to United States Congress, NAT'L ARCHIVES (Nov. 8, 1808), <https://founders.archives.gov/documents/Jefferson/99-01-02-9054>.

⁵⁰ An Act making provision for arming and equipping the whole body of the Militia of the United States, 10 Cong. Ch. 55, 2 Stat. 490 (1808).

⁵¹ Jefferson, *supra* note 49.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ DONALD R. HICKEY, *THE WAR OF 1812: A FORGOTTEN CONFLICT* 74 (1989).

⁵⁵ WILSON, *BUSINESS OF CIVIL WAR*, at 75; see also Michael Raber, "It would be impossible to estimate the value of these works..." *Mass Production at Springfield Armory during the American Civil War*, 14 *ARMS & ARMOUR* 70 (2017).

⁵⁶ G.B. Prescott, *The United States Armory*, ATLANTIC, Oct. 1863, available at <https://www.theatlantic.com/magazine/archive/1863/10/the-united-states-armory/628198/>.

⁵⁷ *Id.* ("The cost of manufacturing a musket at the Government works is estimated at about nine dollars; but the contract-price to the private arms-companies is twenty dollars for those which equal the Government standard in every respect, nineteen dollars and ninety cents for

PUBLIC FACTORIES

The Confederacy also operated its own public factories for munitions.⁵⁸ For example, after the abolitionist John Brown's failed raid on the Harpers Ferry armory in 1859, Virginia reactivated its long-dormant state-owned arms factory first established in 1798.⁵⁹ In April 1861, immediately after seceding from the union, Virginia seized Harpers Ferry, confiscating weapons and machinery for Confederate use.⁶⁰ Subsequent legislation by the Confederate Congress appropriated funding to repair the badly damaged armory at Harpers Ferry, along with funds to expand munitions-production shops at Confederate sites in Alabama and Georgia.⁶¹

Beyond arms, public factories were used to produce numerous other military-related resources during the Civil War. Public factories produced Union soldiers' uniforms.⁶² Government-owned pharmaceutical labs in New York City and Philadelphia mass produced battlefield drugs like morphine and quinine for Union army medics, giving the Union a distinct advantage over the Confederacy, which struggled with drug shortages during the war.⁶³ Government-owned meatpacking plants in Kentucky and Tennessee processed food during the war effort.⁶⁴ State-owned factories produced

those which lack a little in finish, nineteen dollars for the next grade, eighteen for the next, and sixteen for the lowest and poorest which are accepted.”).

⁵⁸ See MICHAEL BREM BONNER, CONFEDERATE POLITICAL ECONOMY: CREATING AND MANAGING A SOUTHERN CORPORATIST NATION 104 (2016).

⁵⁹ MERRITT ROE SMITH, HARPERS FERRY ARMORY AND THE NEW TECHNOLOGY: THE CHALLENGE OF CHANGE 310 (1977). This was not the first time a federal arsenal had been targeted by an insurgent force: in 1787, the Shays' Rebellion uprising in western Massachusetts in response to regressive post-revolutionary debt and tax policies attempted unsuccessfully to seize the federal arsenal at Springfield. See LEONARD L. RICHARDS, SHAYS'S REBELLION : THE AMERICAN REVOLUTION'S FINAL BATTLE 27-30 (2002).

⁶⁰ *Id.* at 319

⁶¹ Act to raise an additional Military Force to serve during the War — Provisional Congress, 2d Sess., ch. 109, § 4 (Confed. May 8, 1861), *available at* <https://docsouth.unc.edu/imls/proviscongress2/session2.html>.

⁶² WILSON, BUSINESS OF CIVIL WAR, at 111; see also Jean Baker, “By No Means Excluding Females”: Abraham Lincoln and Women's Suffrage, in LINCOLN: A PRESIDENT FOR THE AGES 65, 74 (Karl Weber ed., 2012).

⁶³ See MICHAEL A. FLANNERY, CIVIL WAR PHARMACY: A HISTORY 22, 95 (2017); see also Jonathan S. Jones, *The Civil War's Miracle Drugs*, CIVIL WAR MONITOR (Sept. 2, 2024), <https://www.civilwarmonitor.com/the-civil-wars-miracle-drugs/>; Robert D. Hicks, *Frontline Pharmacies*, DISTILLATIONS MAG. (Jun. 9, 2011), <https://www.sciencehistory.org/stories/magazine/frontline-pharmacies/>.

⁶⁴ JESSE AMES SPENCER, THE UNITED STATES: ITS BEGINNINGS, PROGRESS AND MODERN DEVELOPMENT, VOL. 9 163 (1913).

clothes and ammunition; in Indiana, a state-run bakery made bread for soldiers and their families.⁶⁵

Civil War-era public factories addressed a number of policy goals and public interests. Some military officials believed that in-house production was simply more cost-effective. As historian Mark Wilson writes, “Some officers around the country saw their public enterprises as a means to bypass contractors who were inflating prices or even conspiring to fleece the government.”⁶⁶ Beyond merely being expensive, the inequality of private contractors extracting massive wartime profits while soldiers risked their lives for little compensation struck many as morally objectionable.⁶⁷ Others saw government factories as serving an important social welfare and economic stabilization function—clothing and uniform factories, for instance, put low-income women to work to offset the economic losses both from their male relatives leaving for military service and from the cessation of Southern trade.⁶⁸ In February 1865, President Lincoln “promised to run at full capacity the government [textile] factories” as a means of economic stimulus for the female factory workers until the war ended and production ceased.⁶⁹

Public factories for military production expanded around the turn of the twentieth century, coinciding with the rise of the progressive and antimonopoly movements. In the early 1900s, the federal government established a factory in Maryland to produce smokeless powder for the Navy’s firearms and artillery.⁷⁰ Congress determined that such a facility was necessary after the Secretary of the Navy reported that the private smokeless powder market was insufficiently competitive and yielding substandard products.⁷¹ Advocates in Congress proposed other public factories to defeat monopolization of critical defense products, such as for armor plates for the Navy’s then-new steel ships. Representative John Gaines of Tennessee, for example, argued in 1906 for “the building of a Government armor-plate factory . . . [that] might be held in terrorem over this monopoly that has been holding up the Government and compelling it to pay unreasonable prices for that indispensable product[.]”⁷² Gaines believed that public factories further

⁶⁵ WILSON, *BUSINESS OF CIVIL WAR*, at 12-14, 31.

⁶⁶ *Id.* at 100.

⁶⁷ *Id.* at 122.

⁶⁸ *Id.* at 102.

⁶⁹ Baker, *supra* note 62, at 74.

⁷⁰ Lieut. Commander Ralph Earle, *The Development of Our Navy's Smokeless Powder*, U.S. NAVAL INST. (Jul. 1914), available at <https://www.usni.org/magazines/proceedings/1914/july/development-our-navys-smokeless-powder>.

⁷¹ 40 CONG. REC. 6,582 (1916).

⁷² *Id.* at 3,236.

helped expand the country's industrial base for war readiness, and argued that they were more secure in their allegiance: "[A] private factory could sell out to the enemy, a public factory could not."⁷³

In 1916, the public armor plate factory became a reality under President Woodrow Wilson. Navy Secretary Josephus Daniels successfully lobbied Congress to investigate anticompetitive conduct by private armor plate contractors, revealing that steel companies had been overcharging the government.⁷⁴ Congress then authorized a government-owned and -operated plant.⁷⁵ Daniels, a progressive anti-monopolist, was a staunch advocate for government factories because they gave the Navy both its own internal production capacity and stronger leverage to negotiate with private contractors.⁷⁶ Under Daniels's leadership, the Navy also expanded its smokeless powder factory, established its own aircraft factory, and added a new public torpedo-manufacturing plant.⁷⁷ Notably, during his tenure leading the Navy, Daniels' assistant was future president Franklin Delano Roosevelt.⁷⁸

The Wilson administration also oversaw the creation of dozens of new public shipyards.⁷⁹ During Wilson's first term, Treasury Secretary William Gibbs McAdoo had called for the creation of a government-owned merchant fleet, but ran into opposition from J.P. Morgan, the Chamber of Commerce, and private shipping companies.⁸⁰ However, when the United States entered World War I in 1917, the United States Shipping Board—a body created by Congress to revitalize American shipping—formed the Emergency Fleet Corporation (EFC). The EFC was a public enterprise, and it manufactured 1,400 merchant ships in dozens of new GOCO shipyards.⁸¹ The EFC's shipyard

⁷³ *Id.*

⁷⁴ MARK R. WILSON, *DESTRUCTIVE CREATION: AMERICAN BUSINESS AND THE WINNING OF WORLD WAR II* 22 (2016) (hereinafter "WILSON, *DESTRUCTIVE CREATION*").

⁷⁵ See An Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and for other purposes, 64 Cong. Ch. 417, 39 Stat. 563 (1916) ("The secretary of the Navy is hereby authorized and directed to provide, either by the erection of a factory or by the purchase of a factory, or both, for the manufacture of armor for the vessels of the Navy[.]").

⁷⁶ WILSON, *DESTRUCTIVE CREATION* at 21.

⁷⁷ *Id.*; see also William F. Trimble, *The Naval Aircraft Factory, the American Aviation Industry, and Government Competition, 1919-1928*, 60 BUS. HIST. REV. 175 (1986).

⁷⁸ See Arthur Schlesinger Jr., *A Friend to the Boss*, N.Y. TIMES, Jun. 29, 1952, at 11, available at <https://www.nytimes.com/1952/06/29/archives/a-friend-to-the-boss-roosevelt-and-daniels-a-friendship-in-politics.html>.

⁷⁹ WILSON, *DESTRUCTIVE CREATION* at 20.

⁸⁰ *Id.*

⁸¹ *Id.*

at Hog Island (outside of Philadelphia) was the world's largest shipyard, employing 34,000 workers.⁸²

The experience of World War I spurred a grassroots movement among many Americans in opposition to private defense production and in support of public production as an alternative. Americans grew increasingly concerned about wartime profiteering by the so-called “merchants of death”—the private corporations that amassed massive financial gains by supplying the military during the war.⁸³ Many critics—especially veterans and soldiers—deemed these exorbitant profits morally abhorrent, and others worried about perverse economic incentives that gave industry a vested interest in promoting war.⁸⁴ The two primary veterans organizations, the American Legion and the Veterans of Foreign Wars, both called for stricter controls over industry profits during wartime.⁸⁵ During his 1921 inaugural address, President Warren G. Harding promised that there would be “no swollen fortunes to flout the sacrifices of our soldiers,” declaring that “[t]here is something inherently wrong, something out of accord with the ideals of representative democracy, when one portion of our citizenship turns its activities to private gain amid defensive war while another is fighting, sacrificing, or dying for national preservation.”⁸⁶

Public factories were seen as a solution to war profiteering. During the 1930s, Republican Senator Gerald Nye led the Senate's Special Committee on Investigation of the Munitions Industry to investigate profit-taking by banks and industry during World War I.⁸⁷ Highlighting the massive profits reaped by companies such as explosives manufacturer DuPont, the Nye Commission called for a government monopoly over munitions manufacture, the full nationalization of the country's peacetime defense industry, and strict price and profit controls during wartime.⁸⁸ The public was overwhelmingly supportive: a 1936 Gallup poll found that 82 percent of respondents supported prohibiting the manufacture of war munitions for private profit.⁸⁹ Nonetheless, Congress did not enact the Nye Commission's recommendations, largely due to objections from military leaders who preferred a mix of public

⁸² *Id.*

⁸³ *Id.* at 43. American concerns with war profiteering have colonial roots, with seventeenth-century Puritans condemning the practice as a “provoking evil.” STUART D. BRANDES, *WARHOGS: A HISTORY OF WAR PROFITS IN AMERICA* 25 (1997).

⁸⁴ WILSON, *DESTRUCTIVE CREATION* at 46.

⁸⁵ *Id.*

⁸⁶ Warren G. Harding, *Inaugural Address*, AM. PRESIDENCY PROJ. (Mar. 4, 1921), <https://www.presidency.ucsb.edu/documents/inaugural-address-49>.

⁸⁷ WILSON, *DESTRUCTIVE CREATION* at 41.

⁸⁸ *Id.* at 41-44.

⁸⁹ *Id.* at 40.

and private production, which they felt gave them greater operational flexibility.⁹⁰ In 1934, however, Congress did require that half of all new naval warships be produced by public shipyards—a marked shift from the conditions before World War I when 80 percent of new warships were built by private manufacturers.⁹¹

2. *From World War II to the Present*

The United States undertook an unprecedented expansion of public factories during its mobilization for World War II. During the war, the federal government financed over two-thirds of all new industrial plant construction, and owned most of the country's manufacturing capacity in industries from aircrafts to synthetic rubber to shipbuilding to aluminum.⁹² By the end of the war, the federal government owned nearly 25 percent of the total value of country's industrial stock.⁹³

At the start of the war, American leaders believed the crisis in Europe to be both too significant and too transitory to reasonably expect private industrial investment to fulfil military production needs.⁹⁴ In a May 1940 fireside chat, as the government ramped up military production, President Franklin Roosevelt told the country:

I know that private business cannot be expected to make all of the capital investment required for expansions of plants and factories and personnel which this program calls for at once. It would be unfair to expect industrial corporations or their investors to do this, when there is a chance that a change in international affairs may stop or curtail future orders a year or two hence. . . . Therefore, the Government of the United States stands ready to advance the necessary money to help provide for the enlargement of factories, [and] the establishment of new plants[.]⁹⁵

With the government committed to leading the financing of the mobilization effort, the question became whether ownership of the factories it funded would reside in public or private hands. To Clifford Durr, the assistant

⁹⁰ *Id.* at 48.

⁹¹ *Id.* The same law, the Vinson-Trammell Act, also limited private ship manufacturers' profits on government contracts to 10 percent of production costs. Pub. L. No. 73-135, 48 Stat. 503, 504 (1934).

⁹² WILSON, *DESTRUCTIVE CREATION* at 68.

⁹³ *Id.*

⁹⁴ See Franklin D. Roosevelt, *Fireside Chat*, AM. PRESIDENCY PROJ. (May 26, 1940), <https://www.presidency.ucsb.edu/documents/fireside-chat-10>.

⁹⁵ *Id.*

general counsel of the Reconstruction Finance Corporation (RFC)—the government-owned national investment bank established during the Great Depression⁹⁶—the answer was obvious: “[I]f the Government put up the money,” he later wrote, “it should own the plants.”⁹⁷ Government ownership of plants was also a way to disentangle the “unhappy dilemma of the manufacturer who could get no financial backing without orders, no orders without facilities, and no facilities without financial backing,” explained Hans Klagsbrunn, Durr’s RFC deputy.⁹⁸

Durr and Klagsbrunn then helped draft legislation authorizing the RFC to create the wartime public factories promised by Roosevelt, which Congress passed in June 1940.⁹⁹ The law specifically authorized the RFC to “purchase and lease land, to purchase, lease, build, and expand plants, and to purchase and produce equipment, supplies, and machinery, for the manufacture of arms, ammunition, and implements of war.”¹⁰⁰ The RFC could then either “lease such plants to private corporations to engage in such manufacture” or “if the President finds that it is necessary for a Government agency to engage in such manufacture, to engage in such manufacture itself.”¹⁰¹ In 1941, Congress broadened the RFC’s authority “to produce, acquire, carry, sell, or otherwise deal in strategic and critical materials as defined by the President.”¹⁰²

⁹⁶ The RFC—including proposals to revive it—has been the subject of considerable scholarly and advocacy attention in recent years. *See, e.g.*, Robert C. Hockett & Saule T. Omarova, *Private Wealth and Public Goods: A Case for a National Investment Authority*, 43 J. CORP. L. 437 (2018); Saule T. Omarova & Brian Richardson, *Public Investment as Constitutional Power and Accountability Challenge*, 92 U. CHI. L. REV. 461 (2025); Robert Hockett, *An FSOC for Continuous Public Investment: The National Reconstruction and Development Council*, 10 MICH. BUS. & ENTREP. L. REV. 45 (2021); Saule Omarova, *The National Investment Authority: A Blueprint*, BERGGRUEN INST. (Mar. 23, 2022), <https://berggruen.org/news/the-national-investment-authority-a-blueprint>; *see also* CHRIS HUGHES, MARKETCRAFTERS: THE 100-YEAR STRUGGLE TO SHAPE THE AMERICAN ECONOMY (2025); *Mission for America*, NEW CONSENSUS, <https://www.newconsensus.com/mfa>; Isabel Estevez & Rhianna Gunn-Wright et al., *Public Investment Reimagined*, AM. PROSPECT (Dec. 2, 2020), <https://prospect.org/2020/12/02/public-investment-reimagined/>; Kevin Baker, *The Role of Public Capital*, AM. PROSPECT (Dec. 5, 2019), <https://prospect.org/2019/12/05/role-of-public-capital-reconstruction-finance-corporation/>.

⁹⁷ JOHN A. SALMOND, *THE CONSCIENCE OF A LAWYER: CLIFFORD J. DURR AND AMERICAN CIVIL LIBERTIES, 1899-1975* 62-63 (1990).

⁹⁸ Hans A. Klagsbrunn, *Some Aspects of War Plant Financing*, 33 AM. ECON. REV. 119, 122 (Mar. 1943).

⁹⁹ SALMOND, *supra* note 97, at 63.

¹⁰⁰ Pub. L. No. 427-664, 54 Stat. 572, 573 (1940).

¹⁰¹ *Id.*

¹⁰² Pub. L. No. 190-108, 55 Stat. 248, 249 (1941).

PUBLIC FACTORIES

Not all administration officials shared Durr's view in favor of public ownership. The National Defense Advisory Commission (NDAC), headed by former General Motors president William Knudsen, favored generous no-strings-attached subsidies to private business in order to induce wartime production.¹⁰³ In June 1940, when Knudsen asked the RFC to fund a risk-free contract for a large new engine plant that would be privately owned by the aviation company Curtiss-Wright, Durr wrote a memo making four arguments for public factories instead: (1) the government deserved to keep ownership of property it paid for; (2) public ownership reduced the possibility of large war profits by private companies; (3) public ownership allowed the government to determine the location of the plants based on strategic and public needs; and (4) public ownership preserved the government's option to retain the plants after the war.¹⁰⁴

Private firms proved largely unwilling to make capital-intensive investments in new factories that were of uncertain long-term profitability whenever the war concluded.¹⁰⁵ For example, "aircraft companies did not wish to bear the expense of expansion because military orders might cease long before the plants could be paid for," according to a post-war Air Force study.¹⁰⁶ Additionally, some powerful industry leaders—most notably Henry Ford—were staunch isolationists who objected to abetting the war effort.¹⁰⁷ Accordingly, in August 1940, the RFC established a government-owned subsidiary, the Defense Plant Corporation (DPC), charged with directly building the factories needed for mobilization.¹⁰⁸ By building and then leasing out war production factories, historian Gerald White wrote, "DPC shouldered all risk associated with the fixed capital investment" so "there was no danger that the private firm operating the plant would emerge from the war burdened

¹⁰³ SALMOND, *supra* note 97, at 61-62.

¹⁰⁴ *Id.* at 64.

¹⁰⁵ Gerald T. White, *Financing Industrial Expansion for War: The Origin of the Defense Plant Corporation Leases*, 9 J. ECON. HIST. 156, 157, 159 (1949) (hereinafter "White, *Financing*").

¹⁰⁶ U.S. Army Air Forces, *Expansion of Industrial Facilities Under Army Air Forces Auspices, 1940-1945*, 40 ARMY AIR FORCES HIST. STUDIES 1, 23 (1946), <https://www.dafhistory.af.mil/Portals/16/documents/Studies/1-50/AFD-090602-089.pdf>.

¹⁰⁷ See ARTHUR HERMAN, *FREEDOM'S FORGE: HOW AMERICAN BUSINESS PRODUCED VICTORY IN WORLD WAR II* 101 (2013).

¹⁰⁸ White, *Financing* at 159; see also Brady Helwig, *When the Government Owned Factories: The Defense Plant Corporation and Its Lessons for Today*, AM. AFFS. (2026), <https://americanaffairsjournal.org/2026/02/when-the-government-owned-factories-the-defense-plant-corporation-and-its-lessons-for-today/>. The Roosevelt administration also considered derisking private manufacturer capital investments by having the RFC purchase equity stakes in corporations that expanded their factories for the war effort, an idea proposed to President Roosevelt by Securities and Exchange Commission chairman Jerome Frank. White, *Financing* at 160 n.17.

with debt as a result of unwise plant investment.”¹⁰⁹ Most of the DPC’s public factories adopted the GOCO model, whereby the DPC financed construction of a plant, and leased it—typically at nominal rates—to a private contractor to operate.¹¹⁰

For a time, manufacturers had their choice between two policy regimes: leasing public factories from DPC, or contracting with NDAC for government reimbursement of their own private plant expansions. Most firms came to prefer operating under DPC leases.¹¹¹ NDAC’s contracts required firms to front their own expenditures on plant expansions, to then be repaid by the government over a five-year period.¹¹² Firms found the NDAC contracts cumbersome, financially risky, and overly-complicated by requiring the involvement of private lending institutions.¹¹³ DPC leases, in comparison, were more straightforward, simpler to negotiate, and offered better protection against risk.¹¹⁴ Even Curtiss-Wright turned down the proposed risk-free NDAC contract in favor of a DPC lease because of the latter’s simplicity.¹¹⁵

Under the DPC, federal spending on manufacturing facilities doubled private-sector spending, financing two-thirds of all new plants. The DPC constructed 2,300 factories and came to own more than 10 percent of the nation’s total industrial capacity.¹¹⁶ By 1945, the federal government was the leading manufacturer in aircraft, shipbuilding, synthetic rubber, and aluminum, while also owning steel mills and many other facilities.¹¹⁷ DPC even built eight plants outside of the territorial United States, including a nickel processing plant in Cuba, which remained under U.S. government ownership until it was nationalized by Fidel Castro’s regime in 1960.¹¹⁸

¹⁰⁹ *Id.* at 182.

¹¹⁰ WILSON, *DESTRUCTIVE CREATION* at 69.

¹¹¹ SALMOND, *supra* note 97, at 66-67.

¹¹² *Id.* at 66.

¹¹³ *Id.* at 67.

¹¹⁴ *Id.*; see also Ernest Lindley, *Overlooked Defense Unit*, WASH. POST, Jan. 13, 1941, at 9 (“Lately manufacturers have been flocking to the DPC. Its contracts are more simply negotiated than the [NDAC] contracts. And the manufacturers can go ahead right away without peddling their [NDAC] contracts from one bank to another. The long and elaborate effort to draw banking funds into plant expansion for defense has proved much of a flop.”).

¹¹⁵ SALMOND, *supra* note 97, at 67.

¹¹⁶ White, *Financing* at 158; see also JAMES STUART OLSON, *SAVING CAPITALISM: THE RECONSTRUCTION FINANCE CORPORATION AND THE NEW DEAL, 1933-1940* 219 (1988).

¹¹⁷ WILSON, *DESTRUCTIVE CREATION* at 68-69.

¹¹⁸ GERALD T. WHITE, *BILLIONS FOR DEFENSE: GOVERNMENT FINANCING BY THE DEFENSE PLANT CORPORATION DURING WORLD WAR II* 75, 82 (1980) (hereinafter “WHITE, BILLIONS FOR DEFENSE”); see also H.R. Rep. No. 87-1478 (1962).

PUBLIC FACTORIES

One of DPC's earliest priorities was expanding the country's capacity to produce new airplanes. In 1939, the U.S. military had only 1,200 bombers and fighters. After Germany's 1940 blitzkrieg into Holland, Belgium, and France, President Roosevelt called for an air force with 50,000 planes—and adding 50,000 more each year.¹¹⁹ Achieving these goals would entail a major scaling-up of the country's fledgling aircraft industry. DPC financed the construction of facilities across the aircraft supply chain, from plants building the actual planes to factories producing engines and aviation fuel to flying schools training new pilots.¹²⁰ By the end of the war, American factories produced more than 300,000 military planes, establishing aviation as one the nation's major industries.¹²¹

DPC also helped to rapidly start up an emergency domestic synthetic rubber industry from scratch. Rubber was a key military input, necessary for tires, boots, tanks, battleships, gas masks, and vehicles.¹²² But in 1942, the U.S. found its supply cut off after Japan conquered the primary rubber-producing nations in the Pacific islands.¹²³ After drawing down stockpiles, the country's lack of access to rubber had dire national security ramifications by 1943, contributing to the United States' decision to delay its entry into the European war by a year.¹²⁴ Making matters worse, novel synthetic rubber technology was expected to take years to mature. The RFC turbocharged those development efforts, building more than fifty GOCO plants to develop and produce synthetic rubber. By 1944, government-backed production yielded more than 700,000 tons of synthetic rubber, dwarfing the 109,000 tons produced by Germany.¹²⁵

DPC also funded the construction of ancillary facilities supportive to the war mobilization effort. Notably, it spent \$7 million building six plants to

¹¹⁹ Franklin Roosevelt, *Message to Congress on Appropriations for National Defense*, AM. PRESIDENCY PROJ. (May 16, 1940), <https://www.presidency.ucsb.edu/documents/message-congress-appropriations-for-national-defense-1>.

¹²⁰ WHITE, BILLIONS FOR DEFENSE 68-72.

¹²¹ PAUL A.C. KOISTENEN, *ARSENAL OF WORLD WAR II: THE POLITICAL ECONOMY OF AMERICAN WARFARE, 1940-1945* 38-39 (2004).

¹²² ALEXANDER FIELD, *THE ECONOMIC CONSEQUENCES OF U.S. MOBILIZATION FOR THE SECOND WORLD WAR* 82 (2022).

¹²³ CHRIS HUGHES, *MARKETCRAFTERS: THE 100-YEAR STRUGGLE TO SHAPE THE AMERICAN ECONOMY* 36-37 (2025).

¹²⁴ Brady Helwig & Ben Noon, *The U.S. Synthetic Rubber Program: An Industrial Policy Triumph during World War II*, AM. AFFS. (Spring 2025), <https://americanaffairsjournal.org/2025/02/the-u-s-synthetic-rubber-program-an-industrial-policy-triumph-during-world-war-ii>; see also FIELD, *supra* note 122, at 73.

¹²⁵ HUGHES, *supra* note 123, at 37. Some argue that the production of synthetic rubber could have occurred even faster but for certain administrative strategic missteps and planning errors. See FIELD, *supra* note 122, at 70-143.

produce the then-novel “miracle drug” penicillin.¹²⁶ DPC also built twenty-nine emergency housing developments to house the workers staffing some of its more remote plants.¹²⁷

The DPC’s wartime mobilization effort was a resounding success. As historian Mark Wilson writes, “During World War II, the United States helped vanquish the Axis powers by converting its enormous economic capacities into military power[,]” doing so by creating a “military-industrial juggernaut. . . [that] relied heavily on public investment, public management of industrial supply chains, and robust regulation.”¹²⁸ The American “arsenal of democracy” was heavily powered by public factories, driving the Allies to victory.

By the end of the war, there was major public debate over what to do with the government’s large manufacturing holdings: whether to privatize them, or to retain public ownership. Roosevelt administration economists at the National Resources Planning Board supported keeping most of the government’s factories as either public-private partnerships or public corporations like the Tennessee Valley Authority.¹²⁹ Durr, the DPC co-founder and attorney, felt that the government should retain ownership of some public factories as “yardsticks” to hold private contractors accountable.¹³⁰ Department of the Interior Secretary Harold Ickes even proposed transferring ownership of the public factories to new public holding companies, and distributing shares in those corporations to returning servicemembers.¹³¹

However, industry opposed these proposals and advocated aggressively for privatization. In 1943, General Motors chairman Alfred Sloan said industry must “win the peace” by securing a postwar political economic order dominated by the private sector to avoid permanent “socialization of enterprise.”¹³² In early 1944, financier Bernard Baruch co-authored a high-

¹²⁶ WHITE, BILLIONS FOR DEFENSE at 78.

¹²⁷ *Id.* at 80.

¹²⁸ WILSON, DESTRUCTIVE CREATION at 8-9.

¹²⁹ *Id.* at 244.

¹³⁰ *Id.* at 245. The Roosevelt administration’s “yardstick” theory of competition held that “the presence of [a] public option puts pressure on private actors to provide better service at lower cost.” See GANESH SITARAMAN & ANNE ALSTOTT, THE PUBLIC OPTION: HOW TO EXPAND FREEDOM, INCREASE OPPORTUNITY, AND PROMOTE EQUALITY 39 (2019). Roosevelt himself used the phrase during the Depression. See Franklin Delano Roosevelt, *Campaign Address in Portland, Oregon on Public Utilities and Development of Hydro-Electric Power*, AM. PRESIDENCY PROJ. (Sept. 21, 1932), <https://www.presidency.ucsb.edu/documents/campaign-address-portland-oregon-public-utilities-and-development-hydro-electric-power>.

¹³¹ WILSON, DESTRUCTIVE CREATION at 245. This was essentially a twentieth-century version of the land grants made to returning veterans during the nineteenth century. BRANDES, *supra* note 83, at 261.

¹³² WILSON, DESTRUCTIVE CREATION at 235.

profile report commissioned by the Roosevelt administration that adamantly opposed government retention and operation of its plants in competition with private industry, reflecting general business sentiment.¹³³ Pro-privatization efforts were aided by senior members of DPC leadership who split with Durr and were hostile to the idea of long-term government ownership of factories. These DPC officials had preemptively inserted clauses in leasing contracts with private contractors giving them the right to buy the facilities after the war.¹³⁴

Industry largely won the debate. The postwar sell-off of government manufacturing plants amounted to a “huge garage sale,” as historian Stuart Brandes put it, and one of the largest privatizations of public property in American history.¹³⁵ The Surplus Property Act of 1944 created procedures for selling off the government’s factories in pursuit of a variety of objectives, including ensuring fair value, discouraging monopoly, supporting small business, aiding veterans, avoiding economic dislocation, creating job opportunities, and “prevent[ing] insofar as possible unusual and excessive profits being made out of surplus property.”¹³⁶ Yet as the military demobilized and manufacturing demand declined, the government’s property fire sale glutted the market, and the public took massive losses on its manufacturing plants.¹³⁷ In 1946, even the most desirable plants sold for a little more than half of the government’s original cost of construction.¹³⁸ That year, the government had sold off nearly all of its aluminum and steel plants.¹³⁹ That included a \$200 million steel plant in Salt Lake City, Utah, the government’s largest and most expensive industrial plant outside of the atomic program.¹⁴⁰ The plant was operated during the war by U.S. Steel, the country’s largest steel producer, at no fee. In May 1946, the government sold the plant to U.S. Steel for less than a quarter of its original cost, earning widespread criticism from small business advocates and anti-monopolists.¹⁴¹ All told, the government’s sell-off recouped only 35 percent of the costs of facilities built by the DPC.¹⁴²

While the sale of the Utah steel plant exacerbated industry concentration, the government elsewhere did dispose of its factory stock to bolster industry

¹³³ WHITE, BILLIONS FOR DEFENSE at 92-93.

¹³⁴ Jerry N. Hess, *Oral History Interview with John W. Snyder*, HARRY S. TRUMAN LIBRARY & MUSEUM (Jan. 10, 1968), <https://www.trumanlibrary.gov/library/oral-histories/snyder5>.

¹³⁵ BRANDES, *supra* note 83, at 261; WILSON, DESTRUCTIVE CREATION at 190.

¹³⁶ Surplus Property Act of 1944, Pub. L. No. 78-426, 58 Stat. 745 (1944).

¹³⁷ BRANDES, *supra* note 83, at 261.

¹³⁸ *Id.*

¹³⁹ WILSON, DESTRUCTIVE CREATION at 236.

¹⁴⁰ *Id.* at 256.

¹⁴¹ *Id.*

¹⁴² BRANDES, *supra* note 83, at 261.

competition. In 1945, the government declined to sell its aluminum plants to Alcoa, the country's dominant producer.¹⁴³ (The Department of Justice was simultaneously seeking Alcoa's dissolution as an illegal monopoly in federal court.¹⁴⁴) Instead, it leased its plants to smaller competitors Reynolds and Kaiser. This helped those firms improve their market share, as each grew to command about a quarter of the U.S. aluminum market, considerably reducing Alcoa's dominance.¹⁴⁵

The federal government steadily shed its defense factory assets during the 1950s and 1960s, pivoting toward private contractors.¹⁴⁶ The Eisenhower administration privatized the DPC's rubber plants, and shuttered the RFC entirely.¹⁴⁷ Despite the general shift toward defense procurement from private contractors, the military still maintains a number of public factories. These include notable GOCO facilities for munitions and aviation, including at least five ammunition plants.¹⁴⁸ For example, the Air Force's Plant 4 in Fort Worth, Texas, is a GOCO facility leased to Lockheed Martin for the production of F-35 fighter jets.¹⁴⁹ Additionally, in 2024, the Army opened a new artillery factory in Mesquite, Texas, which is operated by General Dynamics.¹⁵⁰ An Army ammunition plant operated by General Dynamics in Scranton, Pennsylvania, was also instrumental in producing artillery for Ukraine after Russia's 2022 invasion.¹⁵¹

B. Industrial Goods and Services

Although public factory production for national defense has a long and storied history, it is not the only domain in which American public factories

¹⁴³ WILSON, DESTRUCTIVE CREATION at 255.

¹⁴⁴ See *United States v. Aluminum Co. of America*, 148 F.2d 416 (2d Cir. 1945).

¹⁴⁵ WILSON, DESTRUCTIVE CREATION at 255.

¹⁴⁶ See *infra* Section III.A.

¹⁴⁷ WILSON, DESTRUCTIVE CREATION at 268.

¹⁴⁸ See Lt. Col. Eric Sults, *GOCO: Expand Government-owned, Contractor-operated Industry*, DEFENSE ACQUISITION UNIV. (Sept. / Oct. 2024), <https://www.dau.edu/library/damag/sept-oct2024/bolsterdefenseindustrialcapacity>; see also LUKE A. NICASTRO, CONG. RSCH. SERV., R47751, THE U.S. DEFENSE INDUSTRIAL BASE: BACKGROUND AND ISSUES FOR CONGRESS 15 (2024), <https://www.congress.gov/crs-product/R47751>.

¹⁴⁹ *Celebrating 75 Years of Innovation in Fort Worth*, LOCKHEED MARTIN (Mar. 30, 2022), <https://www.lockheedmartin.com/en-us/news/features/2017/celebrating-75-years-of-innovation-in-fort-worth.html>.

¹⁵⁰ Mike Stone, *US Army opens new 155mm artillery munitions plant in Texas*, REUTERS (May 30 2024), <https://www.reuters.com/business/aerospace-defense/us-army-opens-new-155mm-artillery-munitions-plant-texas-2024-05-29/>.

¹⁵¹ Jacob Boggage, *Ukraine's artillery is helping boost Scranton's economy*, WASH. POST (Sept. 29, 2024), <https://www.washingtonpost.com/business/2024/09/29/ukraine-war-scranton-defense-manufacturing/>.

have been common. Federal, state, and local governments have also operated public factories to produce a range of industrial goods and services.

1. *Steel*

Soon after the government's rapid bargain-priced liquidation of its public mills at the close of World War II, steel production became a fraught issue in the postwar economy. President Truman and the steel industry had an acrimonious relationship throughout his first years in the White House. His administration found itself contending with labor unrest by steelworkers, and efforts to raise prices by steelmakers, with negative downstream consequences for the country's total steel output and economy-wide inflation.¹⁵² The administration also brought legal challenges against industry mergers and pricing practices.¹⁵³

For their part, steelmakers felt squeezed economically and did not want to invest funds into expanding productive capacity, especially as the labor movement wanted higher wages and government authorities resisted price increases.¹⁵⁴ Moreover, after plummeting steel demand during the Great Depression had left them operating at a fraction of their full capacity, companies remained hesitant to again make rapid new capital investments.¹⁵⁵ Consumers, however, were ready to spend. Americans sought to channel pent-up demand and savings into purchases of new automobiles, houses, appliances, and other durable goods. But as the Economic Report of the President in 1948 put it, "There is no point in having capacity to make more automobiles unless we have capacity to supply steel and other materials."¹⁵⁶

In his 1949 State of the Union address, President Truman unveiled his proposals to secure greater postwar abundance. As part of his "Fair Deal" agenda, Truman called upon Congress to commission a study on the productive capacity of the steel industry and other critical materials facing

¹⁵² PAUL TIFFANY, *THE DECLINE OF AMERICAN STEEL: HOW MANAGEMENT, LABOR, AND GOVERNMENT WENT WRONG* 45-46 (1988).

¹⁵³ *Id.* at 47, 52; see also *United States v. Columbia Steel Co.*, 334 U.S. 495 (1948) (challenge brought by the federal government in February 1947 against U.S. Steel's acquisition of the largest independent steel company on the West Coast).

¹⁵⁴ TIFFANY, *supra* note 152, at 83. When U.S. Steel announced 10 percent price increases in February 1948, the company was condemned by political leaders, compelled to testify before a joint congressional committee, and subjected to investigations by the recently-created White House Council of Economic Advisers, Department of Commerce, and the Federal Bureau of Investigation. *Id.* at 55.

¹⁵⁵ *Id.* at 25.

¹⁵⁶ THE WHITE HOUSE, *ECONOMIC REPORT OF THE PRESIDENT* 69 (1948), <https://www.presidency.ucsb.edu/sites/default/files/books/presidential-documents-archive-guidebook/the-economic-report-of-the-president-truman-1947-obama-2017/1948.pdf>.

shortfalls, and to authorize federal loans for the private sector to expand capacity. But if that failed, Truman called for a federal backstop power “to authorize the construction of such facilities directly”—that is, for the government to build its own steel mills.¹⁵⁷

Truman’s proposal drew from advocacy for public steel mills that had emerged in the Department of the Interior and from labor leaders.¹⁵⁸ The steel industry received his plan as “notice . . . that it was in danger of nationalization.”¹⁵⁹ The American companies’ fears were shaped in part by the contemporary effort in Britain to nationalize its steel industry.¹⁶⁰ However, Truman clarified that his vision was less radical, envisioning the government taking “progressive steps” to increase the supply of steel: first encouraging industry with government loans, but retaining the option for direct government production if industry refused.¹⁶¹ He explicitly invoked the DPC’s factories as a model.¹⁶²

Truman also made clear that his vision for government-run mills would produce steel for the civilian economy, not just for defense use. When asked by a reporter whether government-run steel mills would serve civilian needs or future national defense ones, Truman explicitly endorsed the former: “I am thinking of the shortage of steel in civilian consumption, right now. That is the bottleneck, and the reason we can’t get most of the goods that we want.”¹⁶³

The steel industry openly resisted Truman’s calls for a more rapid expansion. The chairman of National Steel responded to Truman’s speech, saying, “It is obvious that the huge immediate need for steel is abnormal and

¹⁵⁷ Harry S. Truman, *Annual Message to Congress on the State of the Union*, AM. PRESIDENCY PROJ. (Jan. 5, 1949), <https://www.presidency.ucsb.edu/documents/annual-message-the-congress-the-state-the-union-21> (emphasis added). Truman’s proposal was part of a broader anti-inflationary agenda. One year later, much of the rest of this agenda was substantially enacted in the Defense Production Act of 1950. See Joel Dodge, *The Anti-Inflation Defense Production Act*, VAND. POL’Y ACCELERATOR (2025), <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2025/04/21155723/The-Anti-Inflation-Defense-Production-Act.pdf>, at 11-12.

¹⁵⁸ WHITE, BILLIONS FOR DEFENSE at 136.

¹⁵⁹ TIFFANY, *supra* note 152, at 61.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*; see also *Steel building plan explained by Truman*, N.Y. TIMES, Jan. 8, 1949, at 7, available at <https://timesmachine.nytimes.com/timesmachine/1949/01/08/86763840.html?pageNumber=7>.

¹⁶² The President’s News Conference, HARRY S. TRUMAN MUSEUM & LIBRARY (Jan. 7, 1949), <https://www.trumanlibrary.gov/library/public-papers/4/presidents-news-conference-0>.

¹⁶³ *Id.*

temporary. It would be foolish and damaging to the United States to build permanent capacity in proportion to this passing situation.”¹⁶⁴ In the face of the industry’s lack of incentive to invest in short-term capacity expansion, Truman’s public steel mill proposal aimed to fill a supply shortfall where industry would not act.

Democrats in Congress soon introduced two separate bills that would have given the president authority to build government-owned steel mills, among other new powers. Truman economic adviser Leon Keyserling played a key role in drafting the Economic Stabilization Act (later retitled the Economic Expansion Act).¹⁶⁵ The bill would have authorized the government to make loans to expand industrial production or to initiate such expansion by other means, including, if necessary, building its own plants.¹⁶⁶ White House economic adviser John Clark testified before Congress that it may be necessary for “the Government itself to become a producer.”¹⁶⁷

Separately, the Full Employment Act would have created a \$15 billion capital development fund to finance the production of steel and other critical goods, including by federal agencies, state governments, and regional authorities.¹⁶⁸ The bill instructed the president’s Council of Economic Advisers to include ten-year national economic development goals in its annual report to Congress (with a particular focus on developing under-industrialized regions).¹⁶⁹ The new fund, which would be controlled by the RFC, would then be disbursed to achieve the ten-year plans’ production, employment, and investment goals.¹⁷⁰

¹⁶⁴ TIFFANY, *supra* note 152, at 62.

¹⁶⁵ The Economic Stabilization Act was sponsored by Representative Brent Spence of Kentucky. *See* Meg Jacobs, POCKETBOOK POLITICS: ECONOMIC CITIZENSHIP IN TWENTY-FIRST CENTURY AMERICA 242 (2007); *see also* Andrew Elrod, Stabilization Politics in the Twentieth-Century United States: Corporatism, Democracy, and Economic Planning, 1945-1980, at 278-80 (2021) (Ph.D. dissertation, University of California-Santa Barbara).

¹⁶⁶ *See* Charles Hurd, *Truman Bill Asks Curbs on Inflation, Power to Produce*, N.Y. TIMES, Feb. 16, 1949, at 1, 3, available at <https://timesmachine.nytimes.com/timesmachine/1949/02/16/84548890.html?pageNumber=1>.

¹⁶⁷ *Id.*

¹⁶⁸ The Full Employment Act was sponsored by Senator John Sparkman of Alabama, Senator James Murray of Montana, and Representative Wright Patman of Texas. *See Both Federal Government, States Could Enter Steel, Other Business Under \$15 Billion Development Bill*, WALL ST. J., Jan. 11, 1949, at 9.

¹⁶⁹ Elrod, *supra* note 165, at 283.

¹⁷⁰ *Id.*

In the spring of 1949, the standoff over steel production was temporarily mooted when the economy tipped into recession, which eased demand.¹⁷¹ However, after the outbreak of war in Korea, steel capacity issues reemerged; some federal officials declared a steel shortage, estimating that annual domestic production was more than 20 percent short of the country's needs.¹⁷² Organizations like Americans for Democratic Action, staffed by several Roosevelt administration alumni, urged Congress to revive the DPC's public factories model for industrial expansion.¹⁷³ Congress instead adopted tax subsidy and loan programs to encourage steelmakers to scale up production.¹⁷⁴

Truman would clash again with the steel industry in 1951 and 1952 over disputes around wage and price increases. In the face of a threatened work stoppage, Truman seized private steel mills to ensure uninterrupted wartime production.¹⁷⁵ This executive act was overturned by the Supreme Court in *Youngstown Sheet & Tube Company v. Sawyer*.¹⁷⁶ Had Truman and Congress created government-owned steel mills in 1949, the president may not have had to attempt industry nationalization.

2. *Agricultural Fertilizer*

The United States has also used public facilities—attached to its most prominent public energy authority—to produce agricultural fertilizer. In 1916, after the United States entered World War I, Congress authorized construction of public plants powered by hydroelectric dams to produce the nitrates needed for military explosives.¹⁷⁷ The Wilson administration selected Muscle Shoals, Alabama, on the Tennessee River, as the site for these plants, but the war ended before production began.¹⁷⁸ The question of what to do with the nitrate plants became a dominant and contentious post-war political issue. The Wilson administration proposed creating a government-owned Fixed Nitrogen Corporation to use the plants' nitrate capacity for the public manufacture and sale of fertilizer.¹⁷⁹ Throughout the 1920s and '30s, members of Congress from the agricultural South continued to advocate for using the

¹⁷¹ TIFFANY, *supra* note 152, at 84.

¹⁷² *Id.* at 91-92

¹⁷³ WHITE, BILLIONS FOR DEFENSE at 138.

¹⁷⁴ TIFFANY, *supra* note 152, at 92.

¹⁷⁵ *See id.* at 98-99.

¹⁷⁶ 343 U.S. 579 (1952)

¹⁷⁷ *A Dam for the People*, TENN. VALLEY AUTH., <https://www.tva.com/about-tva/our-history/built-for-the-people/a-dam-for-the-people>.

¹⁷⁸ *Id.*

¹⁷⁹ ERWIN HARGROVE, PRISONERS OF MYTH: THE LEADERSHIP OF THE TENNESSEE VALLEY AUTHORITY, 1933-1990 19 (1994).

Muscle Shoals plants to produce affordable fertilizer for farmers.¹⁸⁰ Meanwhile, others who prioritized using the Muscle Shoals site to produce public power—like progressive members of Congress including Senator George Norris and Representative Fiorello LaGuardia—resisted efforts by industrialist Henry Ford to purchase the plants, warning that privatization could become another corrupt boondoggle like the then-recent Teapot Dome scandal.¹⁸¹

In 1933, President Roosevelt signed the Tennessee Valley Authority Act into law. Merging congressional priorities, Roosevelt opted for a “multipurpose approach to the Tennessee Valley Authority,” wrote historian Arthur Schlesinger.¹⁸² The Act established Muscle Shoals as part of the Tennessee Valley Authority (TVA) to both provide public power *and* to publicly manufacture affordable fertilizer. The Act specifically authorized the TVA to “manufacture and sell fixed nitrogen, fertilizer, and fertilizer ingredients” to “improve and cheapen the production of fertilizer.”¹⁸³ Opponents in Congress objected that the TVA would create unfair competition for private fertilizer manufacturers.¹⁸⁴

In 1934, TVA began producing phosphate-based fertilizer. To the disappointment of some of its proponents—and the delight of industry—TVA largely abstained from directly entering the commercial fertilizer market in competition with private producers.¹⁸⁵ While TVA did engage in some modest incidental fertilizer distribution, it prioritized research and development of more effective fertilizer products and processes, and demonstration and education to supply small quantities of TVA products to select farms to promote uptake and industry production of high-grade fertilizers.¹⁸⁶ TVA’s leadership believed that it could best reduce agricultural costs by successfully

¹⁸⁰ ARTHUR SCHLESINGER, *THE COMING OF THE NEW DEAL* 323 (1958).

¹⁸¹ Lee Harris, *Agriculture’s Unflexed Muscle*, AM. PROSPECT (Jul. 19, 2022), <https://prospect.org/2022/07/19/agricultures-unflexed-muscle/>; WILSON, *DESTRUCTIVE CREATION* at 33. Teapot Dome centered around the Harding administration accepting bribes in exchange for no-bid low-cost leases of public petroleum reserves to oil companies. See LATON MCCARTNEY, *THE TEAPOT DOME SCANDAL: HOW BIG OIL BOUGHT THE HARDING WHITE HOUSE AND TRIED TO STEAL THE COUNTRY* (2008).

¹⁸² SCHLESINGER, *supra* note 180, at 323.

¹⁸³ 16 U.S.C. §831d(d); *see also* 16 U.S.C. §831j (“declar[ing] the policy of the Government to utilize the Muscle Shoals properties so far as may be necessary to improve, increase, and cheapen the production of fertilizer and fertilizer ingredients.”).

¹⁸⁴ SANDEEP VAHEESAN, *DEMOCRACY IN POWER: A HISTORY OF ELECTRIFICATION IN THE UNITED STATES* 78 (2024).

¹⁸⁵ Norman Wengert, *The Land—TVA—and the Fertilizer Industry*, 25 *LAND ECON.* 11, 16 (1949).

¹⁸⁶ *Id.* at 16-17; *see also* *Bringing the Land to Life*, TENN. VALLEY AUTH., <https://tvaawcma.com/about-tva/our-history/tva-heritage/bringing-the-land-to-life>.

developing new cheaper products, which could then be commercialized for distribution to farmers by either private producers or TVA itself.¹⁸⁷ When TVA had excess fertilizer production beyond that needed for its test-demonstrations, it made distributions without directly entering the commercial market, including grants to low-income farm states, to Britain during World War II under the Lend-Lease Act, and to domestic farmer cooperatives for resale.¹⁸⁸ Despite TVA's efforts to steer clear of the commercial fertilizer market, the industry nonetheless objected to even TVA's limited distribution as unfair competition.¹⁸⁹

Beginning in the 1970s, presidential administrations began redirecting the TVA from domestic fertilizer demonstration and education to focus exclusively on its research and development function, along with a new international focus to address global hunger.¹⁹⁰ Its fertilizer production plants were mothballed in the 1980s, shuttered for good in 1990, and demolished in 2014.¹⁹¹

By opting to focus on research and development, TVA's fertilizer program never matched the initial expectations of advocates who hoped to use Muscle Shoals as a public option for farmers to directly purchase fertilizer. However, TVA's research and development program did successfully produce technological breakthroughs that yielded long-term economic benefits to farmers and increased competition within the fertilizer industry.¹⁹² By 1977, processes developed by TVA were responsible for more than 75 percent of the

¹⁸⁷ See *Hearing on the Second Deficiency Appropriation Bill for 1935 Before the Subcomm. on Deficiency Appropriations of the H. Comm. on Appropriations*, 74th Cong., at 504 (1935) (“We are going ahead with this research and demonstration of our products . . . [in order to] get cheap fertilizer”) (statement of TVA director Harcourt A. Morgan); *id.* at 505 (“We believe we can cut the cost to the farmer in two; and if we do that, whether we sell [the fertilizer] or the commercial folks sell it, it does not make any difference to the farmer”) (statement of TVA chairman Arthur E. Morgan). Members of Congress pressed TVA leaders on their decision to avoid competing with private producers: Iowa Republican congressman Lloyd Thurston reiterated that “when the original Muscle Shoals was created, and for many years subsequent thereto, it was contended that one of the primary reasons for building that plant was to furnish the Southern farmer with fertilizer.” *Id.* at 503. He questioned TVA leadership as to why they were not directly selling fertilizer to farmers, and whether they had any “agreement or tacit understanding” with the fertilizer industry to “keep [TVA’s] product off the market”—a charge TVA’s leaders denied. *Id.* at 503-04.

¹⁸⁸ Wengert, *supra* note 185, at 19-20.

¹⁸⁹ *TVA and the Fertilizer Industry*, 5 AGRIC. & FOOD CHEM. 570, 570-72 (1957).

¹⁹⁰ Harris, *supra* note 181.

¹⁹¹ *Id.*; see also *There’s TVA History in Your Garden*, TENN. VALLEY AUTH. (Jul. 8, 2020), <https://www.tva.com/the-powerhouse/stories/there-s-tva-history-in-your-garden>.

¹⁹² See *Evaluation of the TVA’s National Fertilizer Program*, TENN. VALLEY AUTHORITY, at 27-41 (1977).

fertilizer used in the United States.¹⁹³ The TVA remains the nation's largest public energy provider, and its fertilizer production authority remains on the books.¹⁹⁴

3. *Asphalt and Cement*

Several cities have operated their own asphalt plants for road-building and repairs. By 1911, local governments including Brooklyn, Detroit, New Orleans, San Francisco, and Denver had municipal asphalt plants.¹⁹⁵ State lawmakers introduced legislation in New York to authorize municipal asphalt plants across each of New York City's five boroughs—a reform that its legislative sponsor deemed necessary to correct conditions where “[t]he city of New York is at the present time absolutely at the mercy of the asphalt trust and as a result is compelled to pay exorbitant prices for asphalt pavement.”¹⁹⁶ In the 1940s, New York City began establishing a series of municipal asphalt plants in each borough.¹⁹⁷ By 1973, after a period of consolidation, the city closed its last remaining municipal plant on the theory that the private sector could supply asphalt more efficiently.¹⁹⁸ But within years, local lawmakers—led by then-state Assemblyman Chuck Schumer—began alleging that private asphalt producers were overcharging and colluding against the city.¹⁹⁹ All told, more than a dozen asphalt companies were convicted of bid rigging and price fixing.²⁰⁰ By 1981, the city restored some public production capacity, opening a new municipal asphalt plant in Brooklyn to reduce prices and increase

¹⁹³ Darrel A. Russel & Gerald G. Williams, *History of Chemical Fertilizer Development*, 41 SOIL SCI. SOC'Y AM. J. 260 (1977).

¹⁹⁴ *Tennessee Valley Authority*, <http://tva.com/>; see also 16 U.S.C. §831d(d).

¹⁹⁵ S.R. Murray, *Municipal Pavement Construction*, 30 MUN. J. 744, 745 (May 24, 1911).

¹⁹⁶ *Municipal Asphalt Paving Plants Proposed for New York*, 36 MUN. ENGINEERING 198, 198 (1909).

¹⁹⁷ *CITY ASPHALT PLANT PRAISED BY MAYOR; Dedication Ceremonies Held at Site on East River Drive*, N.Y. TIMES, May 25, 1944, at 15, available at <https://www.nytimes.com/1944/05/25/archives/city-asphalt-plant-praised-by-mayor-dedication-ceremonies-held-at.html>; see also John Kifner, *CITY'S ASPHALT BILL IS TERMED TOO HIGH*, N.Y. TIMES, Feb. 14, 1978, at 39, available at <https://www.nytimes.com/1978/02/14/archives/citys-asphalt-bill-is-termed-too-high-assemblyman-finds-port.html>.

¹⁹⁸ Glenn Fowler, *Asphalt Contract May Go to Out-of-Town Concern*, N.Y. TIMES, Apr. 1, 1979, at 41, available at <https://www.nytimes.com/1979/04/01/archives/asphalt-contract-may-go-to-outoftown-concern.html>.

¹⁹⁹ Kifner, *supra* note 197.

²⁰⁰ Selwyn Raab, *ASPHALT INQUIRY DELAYS QUEENS AND BRONX ROAD WORK*, N.Y. TIMES, Apr. 18, 1987, at 21, available at <https://www.nytimes.com/1987/04/18/nyregion/asphalt-inquiry-delays-queens-and-bronx-road-work.html>.

competition. In 2010, the city added a second municipal asphalt plant, opening a Queens location.²⁰¹

Similarly, in 1924, South Dakota seized on its bounty of limestone deposits to establish a state-run cement plant.²⁰² In 1909, the state's only privately-operated cement plant had been purchased and subsequently closed down by out-of-state investors.²⁰³ The state also experienced cement shortages that delayed building projects.²⁰⁴ Despite soaring national demand for cement to construct roads and buildings, private capital would not finance a cement plant in South Dakota's Black Hills.²⁰⁵ South Dakota's progressive governor Peter Norbeck pitched a state-owned cement plant as a way to combat monopolistic pricing during a period of high inflation following World War I, stating: "The state can well afford to operate such a plant at cost in order to re-establish competition and reduce the price to the consumer."²⁰⁶ However, the appointed commission charged with operating the state's cement plant ultimately opted to sell its product at market price instead of at cost.²⁰⁷

Cement from South Dakota's public factory was used in projects from the Hoover Dam to the Interstate Highway System.²⁰⁸ Exempt from income and corporate taxes, the state-owned cement plant was consistently profitable, at one point returning an average of nearly \$11 million per year to the state treasury.²⁰⁹ In 1978, following another cement shortage, the plant announced it would prioritize orders for in-state buyers—a preference that was upheld by the U.S. Supreme Court in a Commerce Clause challenge brought by an out-of-state customer.²¹⁰ South Dakota's cement plant remained in public hands

²⁰¹ See Chauncey Alcorn, *City opens pothole repair plant near Willets Point*, QNS (May 31, 2010), <https://qns.com/2010/05/city-opens-pothole-repair-plant-near-willeys-point>.

²⁰² S.D. CONST. ART. XIII, § 10 ("The manufacture, distribution and sale of cement and cement products are hereby declared to be works of public necessity and importance in which the state may engage"); see also Rex Smith, *Making cement in South Dakota, and other tales from the annals of Big Government*, UPSTATE AM. (Jun. 5, 2021), <https://www.upstateamerican.com/p/making-cement-in-south-dakota-and#footnote-anchor-1-37242661>.

²⁰³ *South Dakota Commission's Report on Cement Manufacture*, CEMENT, MILL & QUARRY, Apr. 21, 1921, at 35.

²⁰⁴ *Id.* at 36.

²⁰⁵ *Id.*; see also Smith, *supra* note 202.

²⁰⁶ HERBERT S. SCHELL, *HISTORY OF SOUTH DAKOTA* 269 (1968).

²⁰⁷ *Id.* at 275.

²⁰⁸ Smith, *supra* note 202.

²⁰⁹ Charles Hillinger, *South Dakota Turns Cement to Cash at State-Owned Plant*, L.A. TIMES (Mar. 24, 1986), <https://www.latimes.com/archives/la-xpm-1986-03-24-fi-172-story.html>.

²¹⁰ See *Reeves, Inc. v. Stake*, 447 U.S. 429 (1980).

until it was privatized in 2001.²¹¹ The state sold the plant to a private buyer on the condition that it would not immediately lay off the factory's workers or sell its surrounding land.²¹² However, by 2009, the cement plant's new ownership had reduced its workforce by more than half.²¹³

4. *Commodities Processing*

Multiple levels of government have created public factories for commodities processing. These include public flour mills, municipal slaughterhouses, public lumber mills, and tribal seafood canneries.

In 1919, a cross-partisan agrarian populist movement in control of the North Dakota state government established the country's only state-owned flour mill.²¹⁴ The state's wheat farmers had long felt squeezed by low prices offered by out-of-state mills and high freight rates charged by railroads to reach them.²¹⁵ The public mill was thus an effort to protect small farmers and increase the profits they earned from selling their wheat.²¹⁶ The North Dakota Mill was created pursuant to state legislation authorizing "a system of warehouses, elevators, flour mills, and factories" in the state.²¹⁷ Mill operations were overseen by an industrial commission composed of the Governor, the Attorney General, and the Commissioner of Agriculture.²¹⁸ Construction was financed by a mix of bond issuances and appropriated funds.²¹⁹

In 1920, the U.S. Supreme Court rejected a claim that the flour mill exceeded the legislature's authority under its taxing power.²²⁰ After surviving legal challenges, political threats, and literal fires, the North Dakota Mill remains the United States' largest flour mill, earning record profits in recent

²¹¹ Bob Mercer, *Cement plant sale was to earn forever*, CAPITAL J. (Dec. 6, 2009), https://www.capjournal.com/opinions/columnist/cement-plant-sale-was-to-earn-forever/article_3c53c092-b20c-5257-ae1b-9ea0fb0902ea.html.

²¹² Douglas Clement, *No longer stuck in cement*, FED. RSRV. BANK OF MINNEAPOLIS (May 1, 2001), <https://www.minneapolisfed.org/article/2001/no-longer-stuck-in-cement>.

²¹³ See Mercer, *supra* note 211.

²¹⁴ Gretchen Dykstra, *Pragmatism on the Prairie*, N.Y. TIMES (Mar. 30, 2012), <https://www.nytimes.com/2012/03/31/opinion/pragmatism-on-the-prairie.html>; *Mill and Elevator Association*, STATE HIST. SOC'Y N.D., <https://www.history.nd.gov/archives/stateagencies/millandelevator.html>.

²¹⁵ *About Us*, N.D. MILL, <https://www.ndmill.com/about/>.

²¹⁶ Dykstra, *supra* note 213.

²¹⁷ N.D. Cent. Code § 54-18-02.

²¹⁸ *Mill and Elevator Association*, *supra* note 214.

²¹⁹ J.B. Taylor, *Some Phases of North Dakota's Experiment in Flour Mill Operation*, 2 ACCOUNTING REV. 129, 131 (1927).

²²⁰ *Green v. Frazier*, 253 U.S. 233 (1920).

years.²²¹ It is self-sustaining, and remits half of its annual profits back to the state treasury.²²² It delivers its “North Dakota Maid” brand flour to bulk purchasers and retailers across the country.²²³ Researchers have found that the mill generates significant economic benefits for the state.²²⁴ The mill’s stated mission remains to “promote and provide support to North Dakota agriculture, commerce and industry[,] . . . and provide a profit to our owners—the citizens of North Dakota.”²²⁵

Several cities operated municipally-owned slaughterhouses. Cities established their own slaughterhouses to improve public health, increase the affordability of meat, and close a regulatory gap under the Pure Food and Drug Act of 1906, which did not provide for federal inspection of meat produced and sold without crossing state lines.²²⁶ In 1910, Paris, Texas became the first city to establish its own slaughterhouse.²²⁷ More followed suit, including Austin, Texas;²²⁸ Savannah, Georgia;²²⁹ and Baton Rouge, Louisiana.²³⁰ At least one municipal slaughterhouse—Austin’s—was operational until 1969.²³¹

The federal government also operated a public sawmill. In 1847, after the Mexican-American War, the Army established, for its own use, a lumber mill

²²¹ See Jenny Schlecht, *North Dakota Mill reports record profits for fiscal year 2025*, INFORUM (Jul. 31, 2025), <https://www.inforum.com/business/north-dakota-mill-reports-record-profits-for-fiscal-year-2025>; Edward Segal, *North Dakota Mill reports record profits*, KX NEWS (Aug. 28, 2024), <https://www.kxnet.com/news/top-stories/north-dakota-mill-reports-record-profits/>.

²²² THOMAS HANNA, *OUR COMMON WEALTH: THE RETURN OF PUBLIC OWNERSHIP IN THE UNITED STATES* 21 (2018).

²²³ Arvin Donley, *Celebrating a century of success*, WORLD-GRAIN.COM (Nov. 22, 2022), <https://www.world-grain.com/articles/17763-celebrating-a-century-of-success>.

²²⁴ *Id.*

²²⁵ *Home*, N.D. MILL, <https://www.ndmill.com/>.

²²⁶ See Pure Food Act, 59 Cong. Ch. 3915, 34 Stat. 768, 768-69 Sec. 3 (1906); see also Betsy Frederick-Rothwell, *Austin’s Municipal Abattoir*, NOT EVEN PAST (Sept. 4, 2013), <https://notevenpast.org/austins-municipal-abattoir/>; *Texas City Runs Its Own Abattoir*, EVENING REPUBLICAN, Oct. 31, 1910, at 2, available at <https://newspapers.library.in.gov/?a=d&d=EVRP19101031.2.43>.

²²⁷ *Texas City Runs Its Own Abattoir*, *supra* note 226.

²²⁸ Frederick-Rothwell, *supra* note 226.

²²⁹ *Savannah Archives: Municipal Abattoir, a city-run slaughterhouse, ensured quality of meat*, SAVANNAH MORNING NEWS (Nov. 21, 2021), <https://www.savannahnow.com/story/lifestyle/2021/11/21/savannah-municipal-abattoir-city-run-slaughterhouse-ensured-quality-meat-sold-local-market/6396742001/>.

²³⁰ J.M. Baker, *The Baton Rouge City Abattoir: Relation to the Retail Meat Supply, Production and Marketing Problems of Farmers*, LOUISIANA BULLETIN (1942), available at <https://repository.lsu.edu/cgi/viewcontent.cgi?article=1267&context=agexp>.

²³¹ Frederick-Rothwell, *supra* note 226.

in California amid the then-territory's redwood groves.²³² The government mill operated until being deemed uneconomical in 1853—in part due to fluctuating lumber prices and labor shortages prompted by the discovery of gold in California—and was sold by the Army.²³³

Tribal governments have operated their own seafood processing plants. From the 1930s-1950s, the Department of the Interior's Bureau of Indian Affairs administered an economic development program that provided financial assistance to several Native Alaskan tribes that owned salmon canneries.²³⁴ In 2023, the Tlingit and Haida Indian Tribes of Alaska acquired ownership over a salmon and seafood processing company, including its plant, in order to promote the tribes' economic sovereignty.²³⁵ Alaska's Sun'aq tribe also owns its own seafood plant.²³⁶

5. Printing

Several levels of government have also operated their own printing presses. Most notably, in 1860, Congress established the Government Printing Office (GPO).²³⁷ Congress had grown dissatisfied with the prior system of procurement from private printers, which was rife with over-charging, fraud, abuse, and delay.²³⁸ Lawmakers also considered printing “unlike any other department of Government service” because it was essential to lawmaking: “[T]he public printing underlies your armies, it underlies your navies, and every other arm of the national service,” said Congressman John Gurley.²³⁹ Witnesses before Congress testified that publicly-owned printing would

²³² Richard Cunningham, *When Sawmills Flourished in Larkspur*, ANNE T. KENT CALIF. ROOM (Sept. 2, 2020), <https://medium.com/anne-t-kent-california-room-community-newsletter/when-sawmills-flourished-in-larkspur-274b0680362f>.

²³³ *Id.*

²³⁴ See Alaska Native Loan Program, H.R. Rep. No. 85-1821 (1958); Press Release, Seaton Announces Increased Loan Program To Help Alaska Natives Modernize Fishing Fleets, U.S. DEP'T OF INTERIOR (Dec. 17, 1958), available at <https://www.bia.gov/as-ia/opa/online-press-release/seaton-announces-increased-loan-program-help-alaska-natives>.

²³⁵ Clarise Larsen, *Tlingit and Haida purchases Alaska Seafood Company*, JUNEAU EMPIRE (Jun. 23, 2023), <https://www.juneauempire.com/news/tlingit-and-haida-finalizing-purchase-of-alaska-seafood-company/>.

²³⁶ Brian Venua, *Sun'aq Tribe awarded \$2.3 million to improve kelp processing*, KMXT (Sept. 18, 2025), <https://www.kmxt.org/news/2025-09-18/sunaq-tribe-awarded-2-3-million-to-improve-kelp-processing>.

²³⁷ Joint Resolution in Relation to the Public Printing, S.J.Res. 25, 36th Cong., 12 Stat. 117 (1860).

²³⁸ See JAMES L. HARRISON, 100 GPO YEARS 1861-1961: A HISTORY OF UNITED STATES PUBLIC PRINTING 25-29 (2010).

²³⁹ Cong. Globe, 36th Cong., 1st Sess. 2483 (1860) (statement of Rep. Gurley).

substantially reduce the government's costs; even private commercial printers acknowledged that public printing could bring the government's costs down by half.²⁴⁰ From 1861–1863, the GPO saved the government nearly \$600,000, despite wartime inflation.²⁴¹ The agency—now known as the Government Publishing Office²⁴²—remains the government's in-house printing and publication service. Since the 1940s, the GPO has partnered with private printers to supplement its internal capacity, and now contracts out much of its printing to private printers through a competitive bidding process.²⁴³ In the 1980s and '90s, however, efforts to completely privatize the agency failed.²⁴⁴

States and municipalities have also created their own government-owned printing presses. In 1897, Boston established its own municipal printing office, which quickly began saving the city thousands of dollars per year.²⁴⁵ Boston closed its municipal printing plant in 2010.²⁴⁶ In 1914, Pasadena, California, created its own municipal printing plant, which also yielded thousands of dollars of annual savings.²⁴⁷ Today, several states operate their own printing offices, including California,²⁴⁸ New York,²⁴⁹ and Pennsylvania.²⁵⁰

C. Consumer Goods and Services

Public factories have also produced goods and services directly for consumers. These factories, also operating at multiple levels of government, have produced goods ranging from medicines to milk to alcohol.

²⁴⁰ HARRISON, *supra* note 238, at 29.

²⁴¹ *Id.* at 40.

²⁴² U.S. Gov't Publishing Office, <https://www.gpo.gov/>.

²⁴³ See Press Release, GPO Print Procurement Helps Local Businesses in 2025, U.S. Gov't Publishing Office (Dec. 17, 2025), <https://www.gpo.gov/who-we-are/news-media/news-and-press-releases/gpo-print-procurement-helps-local-businesses-in-2025>.

²⁴⁴ Tom Shoop, *Government For Sale*, GOV. EXEC., Jun. 1, 1995, available at <https://www.govexec.com/magazine/1995/06/government-for-sale/7453/>.

²⁴⁵ Thomas Whalen, *Boston's Municipal Printing Plant*, CITY GOV., April 1900, at 88, available at <https://tinyurl.com/2rhdja8a>.

²⁴⁶ *Boston (Mass.). Printing Department*, CTY. OF BOSTON ARCHIVES, https://archives.boston.gov/agents/corporate_entities/137.

²⁴⁷ SIXTH ANNUAL REPORT, MUNICIPAL PRINTING DEPT. – PASADENA, CALIF. 1 (1920), available at <https://babel.hathitrust.org/cgi/pt?id=hvd.hnjanf&seq=1>.

²⁴⁸ *Office of State Publishing*, STATE OF CALIF. OFFICE OF GEN. SERVS., <https://www.dgs.ca.gov/OSP>.

²⁴⁹ *Printing and Copying Services*, NEW YORK STATE OFFICE OF GEN. SERVS., <https://ogs.ny.gov/printing-and-copying-services>.

²⁵⁰ *Print, Design, & Mail Services*, COMMONWEALTH OF PA., <https://www.pa.gov/agencies/dgs/programs-and-services/print-design-mail-services>.

1. Medicines and Vaccines

Government has a long history of producing medicines and vaccines in response to public health crises, private-sector contamination, and private-sector supply shortfalls. As we have already seen, vaccine production was a critical part of the Union’s Civil War effort, helping soldiers survive diseases and conditions while at the front.²⁵¹ In the 1890s, New York City’s health department established a laboratory that produced and distributed free vaccines and serums to the poor.²⁵² The laboratory was the first in the United States to produce the antitoxin serum for the then-prevalent and deadly communicable disease diphtheria.²⁵³ By mass producing the serum, the health department reduced its cost from \$12 per vial to \$1.²⁵⁴ It distributed the serum through local drugstores, and offered it for free to physicians and low-income patients.²⁵⁵ Surplus serum was sold to other municipalities across the country, helping fund the health department’s operations.²⁵⁶ However, under pressure from private manufacturing chemists and doctors who criticized this practice as unfair competition and “municipal socialism,” the health department wound down its surplus sales program by 1902.²⁵⁷

In 1894, Massachusetts created a public drug manufacturer and research lab known as MassBiologics to produce diphtheria antitoxin.²⁵⁸ The public manufacturer also developed biologic products to treat diseases like smallpox, typhoid, scarlet fever, tetanus, and pertussis.²⁵⁹ In 1997, Massachusetts transferred control of MassBiologics from its public health department to the state university’s medical school.²⁶⁰ MassBiologics remains the nation’s only Food & Drug Administration-licensed nonprofit vaccine manufacturer.²⁶¹

²⁵¹ See *supra* Section I.A.1.

²⁵² PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* 187 (1982).

²⁵³ *Id.* at 188.

²⁵⁴ *Id.*

²⁵⁵ *Id.*

²⁵⁶ *Id.*

²⁵⁷ *Id.*

²⁵⁸ *History*, UMASS CHAN MED. SCH., <https://www.umassmed.edu/massbiologics/about/history/>.

²⁵⁹ Bryan Goodchild, *MassBiologics founded 125 years ago to protect public health*, UNIV. OF MASS. (Nov. 18, 2019), <https://www.massachusetts.edu/news/massbiologics-founded-125-years-ago-protect-public-health>.

²⁶⁰ *About MassBiologics*, UMASS CHAN MED. SCH., <https://www.umassmed.edu/massbiologics/about/>.

²⁶¹ Goodchild, *supra* note 259.

In 1901, New York State opened a public antitoxin laboratory to produce and distribute medicines to treat diphtheria and anthrax.²⁶² That year, after high-profile vaccine contamination incidents at private manufacturers in Missouri and New Jersey led to several fatalities, some reformers began calling for government-owned vaccine manufacturing, arguing that it was too risky to leave production up to commercial firms.²⁶³ In 1920, a diphtheria outbreak prompted Michigan to build its own drug manufacturing facility, which produced vaccines for diphtheria, typhoid, tetanus, rabies and anthrax.²⁶⁴ Michigan continued publicly producing vaccines until 1996, when the facility was privatized.²⁶⁵

More recently, in response to the rising price of insulin used to treat diabetes, state governments have explored creating government-owned production facilities. In 2020, California enacted the California Affordable Drug Manufacturing Act of 2020, which authorized the state government to directly manufacture generic drugs and sell them at low cost.²⁶⁶ The state legislature has since appropriated \$50 million for California to produce insulin.²⁶⁷

In Michigan, Governor Gretchen Whitmer likewise issued an executive order in 2022 to explore public manufacturing as an option to reduce insulin

²⁶² *Wadsworth Center History*, N.Y. STATE DEP'T OF HEALTH, WADSWORTH CTR., <https://www.wadsworth.org/about/history>.

²⁶³ See Terry S. Coleman, *Early Developments in the Regulation of Biologics*, 71 FOOD & DRUG L.J. 544, 548-50 (2016); see also MICHAEL WILLRICH, *POX: AN AMERICAN HISTORY 196-97* (2011) ("The lesson we have principally to learn from these catastrophes,' said Dr. Dalton of New York, 'is the necessity of eliminating commercialism from matters pertaining to public health.'"). The debate over public vaccine manufacturing was ultimately defused by the creation of a federal licensing system under the Biologics Control Act of 1902, Pub. L. No. 57-244, 32 Stat. 728 (1902). See Coleman, *Early Developments*, at 551.

²⁶⁴ Robin Erb, *With insulin prices skyrocketing, Michigan may go DIY*, BRIDGE MICH. (Apr. 26, 2022), <https://www.bridgemi.com/michigan-health-watch/insulin-prices-skyrocketing-michigan-may-go-diy>.

²⁶⁵ Pam Graham, *Privatization of the Biologic Products Program*, MI. SENATE FISCAL AGENCY (Nov./Dec. 1996), <https://sfa.senate.michigan.gov/Publications/Notes/1996Notes/NotesNovDec96pg.pdf>.

²⁶⁶ Cal. Health & Safety Code § 127692.

²⁶⁷ Dave Muioio, *California will tackle high drug prices by making its own low-cost insulin*, *Newsom says*, FIERCE HEALTHCARE (Jul. 8, 2022), <https://www.fiercehealthcare.com/payers/california-aims-tackle-high-drug-prices-making-its-own-low-cost-insulin-newsom-says>. As of this writing, California has not yet implemented a state-owned insulin manufacturing site. The state has instead entered into an initial partnership with the nonprofit drug manufacturer Civica Rx to produce insulin in its own facilities for the state. See Kristen Hwang, *California made a big bet on producing its own insulin. There's no 'date certain' for delivery*, CALMATTERS (Mar. 3, 2025), <https://calmatters.org/health/2025/03/california-insulin-production-delay/>.

PUBLIC FACTORIES

costs.²⁶⁸ In 2023, Maine also commissioned a feasibility study to consider creating its own public insulin factory.²⁶⁹ In May 2025, the New York State Senate passed legislation authorizing the state to produce its own drugs, with an emphasis on generic drugs that are either high-cost or particularly susceptible to shortages.²⁷⁰

The federal government also engages in some limited vaccine manufacturing for research and development purposes. Since 1953, the Department of Defense has maintained a Pilot Bioproduction Facility to produce small-scale batches of experimental vaccines and biologics for testing in clinical trials.²⁷¹ The government facility has been involved in developing vaccines for Hepatitis A, COVID-19, and the Zika virus.²⁷²

Other recent initiatives have sought to produce medicine at the national level. In 2021, Congress passed the American Rescue Plan Act (ARPA) in response to the COVID-19 pandemic. The Act included \$16 billion in funding to support the expansion of productive capacity for vaccines and COVID-19 treatments. One provision of ARPA explicitly authorized production of vaccines, tests, personal protective equipment, and other materials at

²⁶⁸ Exec. Directive No. 2022-12, STATE OF MICH. OFFICE OF THE GOVERNOR (Oct. 3, 2022), <https://www.michigan.gov/whitmer/-/media/Project/Websites/Whitmer/Documents/Exec-Directives/ED-202212-Lowering-Costs-of-Insulin-221003-with-signature.pdf?rev=df11d08c78284bff97b7cac1f5d72fd2&hash=D2E0A163C7EAEC9F30C91E4CDF22616B>.

²⁶⁹ See *Report: The Feasibility of the Production of Insulin in Maine*, ME. DEP'T OF HEALTH & HUMAN SERVS. (Feb. 17, 2023), <https://www.legislature.maine.gov/doc/9743>.

²⁷⁰ *New York Senate Passes Legislation to Make Prescription Drugs, Healthcare More Affordable and Accessible*, N.Y. STATE SENATE (May 20, 2025), <https://www.nysenate.gov/newsroom/press-releases/2025/new-york-senate-passes-legislation-make-prescription-drugs-healthcare>.

²⁷¹ See *Pilot Bioproduction Facility (PBF)*, WALTER REED ARMY INST. OF RSCH., <https://wrair.health.mil/Collaborate/Pilot-Bioproduction-Facility/>; see also Samir Deshpande, *Walter Reed Army Institute of Research re-launches vaccine manufacturing facility*, U.S. ARMY (May 6, 2021), https://www.army.mil/article/246370/walter_reed_army_institute_of_research_re_launches_vaccine_manufacturing_facility.

²⁷² Deshpande, *supra* note 271; Linda Carroll & Samuel Sarmiento, *'Striking' Results from Early Zika Vaccine Trial*, NBC NEWS (Aug. 4, 2016), <https://www.nbcnews.com/storyline/zika-virus-outbreak/striking-results-early-zika-vaccine-trial-n623016>.

“government-owned . . . facilities.”²⁷³ While the government was authorized to create its own public factories in response to COVID-19, it never did so.²⁷⁴

2. *Ice Plants*

In the early twentieth century, there was a broad movement for municipalities to establish government-run ice plants to provide their residents with affordable ice during hot summers. In the era before mass, cheap refrigeration, interest in public ice factories grew from the “extortionate prices” charged by private ice dealers.²⁷⁵ Local policymakers looked to successful public ice factories run by the federal government—servicing government buildings in Washington, D.C., and American territories and military bases—and European municipalities in England, Germany, and Italy.²⁷⁶ Advocates argued that the municipal provision of ice was a logical extension of municipal provision of water.²⁷⁷ They also argued that during hot summers, ice was just as essential as other public utilities like electricity, given the toll the heat took on the poor who could not cool themselves nor properly store milk and other perishable foods.²⁷⁸ This line of argument ultimately made its way to the Supreme Court in *New State Ice Company v. Liebmann*, a challenge to an Oklahoma law requiring businesses to obtain a permit to sell ice, in a dissenting opinion from Justice Lewis Brandeis, stating: “[A] regular supply of ice may reasonably be considered a necessary of life, comparable to that of water, gas, and electricity.”²⁷⁹

In 1913, one of the first municipal ice plants was created in Weatherford, Oklahoma, which began producing ice as a byproduct from its electric light and

²⁷³ American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 3101(b)(1), 135 Stat. 4, 54 (2021) (appropriating funding for “production (including the construction, repair, and retrofitting of government-owned or private facilities as necessary), or distribution of medical supplies and equipment . . . related to combating the COVID-19 pandemic”).

²⁷⁴ James Krellenstein, *Playing Fiddle While the World Burns: The \$16 Billion Dollars the Biden Administration Hasn’t Used to End the Pandemic*, PREP4ALL, <https://prep4all.org/wp-content/uploads/2021/08/Final-PDF-25-Aug-v2.pdf>; see also Amy Kapczynski, Christopher Morten & Reshma Ramachandran, *How Not to Do Industrial Policy*, BOSTON REV. (Oct. 2, 2023), <https://www.bostonreview.net/articles/how-not-to-do-industrial-policy/>.

²⁷⁵ JEANNIE WELLS WENTWORTH, INFO. OF THE PRES. OF THE BOROUGH OF MANHATTAN, CITY OF N.Y., A REPORT ON MUNICIPAL AND GOVERNMENT ICE PLANTS IN THE UNITED STATES AND OTHER COUNTRIES 1 (1913).

²⁷⁶ *Id.*

²⁷⁷ *Id.* at 67; Hugh J. Cooper, *A Successful Municipal Ice Plant*, 29 AM. MUNICIPALITIES 169, 169 (April 1915).

²⁷⁸ Cooper, *supra* note 277, at 169; Wentworth, *supra* note 275, at 77; see also *Holton v. City of Camilla*, 68 S.E. 472, 475 (Ga. 1910) (“If a city has the right to furnish heat to its inhabitants because conducive to their health, comfort, and convenience, we see no reason why they should not be permitted to furnish ice.”).

²⁷⁹ 285 U.S. 262, 287 (1932) (Brandeis, J., dissenting).

PUBLIC FACTORIES

water plant.²⁸⁰ The town financed the creation of its ice plant by repurposing a \$10,000 bond that had originally been issued to build a city hall.²⁸¹ Weatherford was able to profitably produce ice at a lower cost and reliably better quality than that sold by private firms, while also furnishing ice for free at its public gatherings and to the poor and sick.²⁸²

In 1917, Omaha, Nebraska also opened a municipal ice plant.²⁸³ The plant was able to produce and sell ice at half the price charged by private companies.²⁸⁴ The plant supplied a significant portion of the city's household ice and turned a profit.²⁸⁵ To break the economic power of the "ice trusts," which hiked the price of ice in the summer, cities from Mount Vernon and Yonkers, New York, to Detroit, Michigan also opened their own public ice plants.²⁸⁶

Some municipal ice plants faced court challenges brought by private ice dealers alleging that such plants exceeded the government's authority.²⁸⁷ In 1914, the Supreme Court of Louisiana blocked a town ordinance to create a municipal ice plant on the grounds that such an enterprise was not a "public activity" under the state constitution.²⁸⁸ Several other state courts likewise blocked municipal ice plants as beyond the scope of permissible legislative

²⁸⁰ Cooper, *supra* note 277, at 169.

²⁸¹ *Id.*

²⁸² *Id.*

²⁸³ CARL D. THOMPSON, PUBLIC OWNERSHIP: A SURVEY OF PUBLIC ENTERPRISES, MUNICIPAL, STATE, AND FEDERAL, IN THE UNITED STATES AND ELSEWHERE 302 (1925).

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 302-03.

²⁸⁶ *Ice Trusts and Other Combinations*, THE INDEPENDENT (Jul. 26, 1906), available at <https://tinyurl.com/4rra5k6e>.

²⁸⁷ WENTWORTH, *supra* note 275, at 1. In some earlier cases, other public factories had also faced resistance from state courts. In 1871, the Supreme Judicial Court of Maine held that the state legislature lacked the power to authorize towns to "establish manufactories entirely on their own account, and run them by the ordinary town officers[.]" *In re Opinion of the Justices*, 58 Me. 590, 612 (1871).

²⁸⁸ *Union Ice & Coal Co. v. Town of Ruston*, 66 So. 262, 271 (La. 1914) ("The business of manufacturing and selling ice has heretofore been left to private enterprise; as much so as the business of making and selling bread or of any of the articles of household consumption."); see *id.* at 272 ("For the support of its paupers and indigent sick the municipality may go as deeply as the necessity of the case may require into the pockets of its large taxpayers; but it cannot do so for the purpose of selling ice, or bread, or meat, or drugs, etc., etc., more cheaply to its inhabitants in general than the regular merchants are doing. This would be paternalism pure and simple, a thing foreign to our form of government.").

power.²⁸⁹ However, the courts divided on this issue, and others sustained municipal ice plants.²⁹⁰

3. Milk Plants

At least one American city, Tarboro, North Carolina, has operated a municipal milk plant. In 1918, after a series of dysentery and typhoid fever outbreaks were traced to the city's milk supply, the local government mandated pasteurization of all milk.²⁹¹ Local producers argued that the city should provide the facility to comply with the new mandate. The city then established its own pasteurization plant.²⁹² Tarboro financed construction of the plant from general tax revenues.²⁹³ The milk plant was able to charge prices lower than those charged in other nearby cities, and earned sufficient revenue to cover its expenditures.²⁹⁴ A 1938 study by economists in the U.S. Department of Agriculture praised the Tarboro milk plant:

The citizens of Tarboro apparently considered their municipal milk enterprise an excellent asset. Their position seemed to be that prices were low in view of the high quality of products that the plant was self-supporting and under no circumstances should it pass into private hands. Milk handling as a public enterprise in Tarboro would thus appear to be as deeply entrenched as are the water works and the electric system.²⁹⁵

The city did not aspire for the plant to earn a profit, but to break even while protecting public health.²⁹⁶ In 1964, the city council closed the plant after it began losing money in light of growing competition from private pasteurization firms.²⁹⁷

²⁸⁹ See, e.g., *State ex rel. Kansas City v. Orear*, 210 S.W. 392, 400 (Mo. 1919); *State ex rel. Hill v. Port of Seattle*, 177 P. 671, 673 (Wash. 1919); see also Gail Radford, *From Municipal Socialism to Public Authorities: Institutional Factors in the Shaping of American Public Enterprise*, 90 J. AM. HIST. 863, 875 (2003) (detailing 1911 effort by Schenectady, New York to establish a municipal ice business, which was blocked in court).

²⁹⁰ See *City of Tombstone v. Macia*, 245 P. 677, 683 (Ariz. 1926); *Saunders v. Town of Arlington*, 94 S.E. 1022 (Ga. 1918); *Holton*, 68 S.E. at 475.

²⁹¹ CARL D. THOMPSON, PUBLIC OWNERSHIP: A SURVEY OF PUBLIC ENTERPRISES, MUNICIPAL, STATE, AND FEDERAL, IN THE UNITED STATES AND ELSEWHERE 324 (1925); see also Alvar Johan Nixon & Otie Marion Reed, *Municipal Milk Distribution in Tarboro, North Carolina*, U.S. DEPT. AG. (Dec. 1938), at 4, available at <https://tinyurl.com/bd9puvus>.

²⁹² *Id.*

²⁹³ Nixon & Reed, *supra* note 291, at 17.

²⁹⁴ *Id.* at 2

²⁹⁵ *Id.* at 29

²⁹⁶ Lisa Sorg, *Town Milk Put Tarboro on the Map*, OUR STATE (Dec. 29, 2015), <https://www.ourstate.com/tarboro-municipal-milk-plant-served-as-international-model/>.

²⁹⁷ *Id.*

In 1920, voters in Jamestown, New York approved a bond issue to create a municipal milk plant.²⁹⁸ However, the chosen bond buyers refused to purchase the bonds because they questioned whether the city had constitutional authority to enter the milk business, effectively defeating the plan.²⁹⁹ In 1933, Jamestown’s mayor sought to revive the stymied municipal milk plant, arguing it would provide financial support for dairy farmers during the Depression by cutting out middlemen milk dealers, and proposing to seek a Reconstruction Finance Corporation loan to finance the project.³⁰⁰ Yet the municipal milk plant never materialized. In 1950, the town again briefly considered the proposal, but the project drew opposition as a “socialistic step” raising “unfair, tax-free competition to private [milk] dealers.”³⁰¹

In the 1930s, the Roosevelt administration’s Agricultural Adjustment Administration considered piloting additional municipal milk processing and distribution plants to support dairy farmers. It went so far as to select Milwaukee—led by “sewer socialist” mayor Daniel Hoan—as a potential host city.³⁰² But the pilot public milk plant was never implemented.

4. Fertilizer

Since 1926, the city of Milwaukee has operated a production facility to make and sell nitrogen fertilizer. Under the city’s “sewer socialist” government,³⁰³ Milwaukee created one of the nation’s first water treatment plants to improve public health by separating drinking water from raw sewage.³⁰⁴ The city then discovered it could treat the wastewater and sludge at the plant to produce a fertilizer—a potentially valuable recycling innovation

²⁹⁸ THOMPSON, *supra* note 291, at 325.

²⁹⁹ *Id.* at 325 n.71; *see also* *Jamestown’s Municipal Milk Plant*, 51 MUNI. J. PUB. WORKS 63 (Jul. 23, 1921).

³⁰⁰ Samuel A. Carlson, *Mayor Views Milk as a City Service*, N.Y. TIMES, Oct. 15, 1933, at E6, available at <https://www.nytimes.com/1933/10/15/archives/mayor-views-milk-as-a-city-service-jamestown-ny-should-have-own.html>.

³⁰¹ William M. Farrell, *Town Considering Public Milk Plant*, N.Y. TIMES, Feb. 3, 1950, at 26, available at <https://www.nytimes.com/1950/02/03/archives/town-considering-public-milk-plant-jamestown-to-decide-soon-on.html>.

³⁰² ARTHUR SCHLESINGER, *THE COMING OF THE NEW DEAL* 76 (1958).

³⁰³ *Milwaukee Sewer Socialism*, WISC. HIST. SOC’Y, <https://www.wisconsinhistory.org/Records/Article/CS428>.

³⁰⁴ Peter Dreier, *What Milwaukee Can Teach the Democrats about Socialism*, DISSENT (May 8, 2019), https://www.dissentmagazine.org/online_articles/what-milwaukee-can-teach-the-democrats-about-socialism/.

that had been pursued by sanitation scientists for decades.³⁰⁵ The city called the resulting product “Milorganite” (short for “Milwaukee Organic Nitrogen”), used to fertilize lawns, gardens, parks, and golf courses.³⁰⁶ In the course of producing Milorganite for the last century, Milwaukee’s sewer district for a century has diverted 10 billion tons of sewage from landfills.³⁰⁷ Sales of Milorganite continue to generate over \$10 million in revenue for the city each year.³⁰⁸

5. *Alcohol*

During the Great Depression, the Roosevelt administration attempted to improve the economy not just in the continental United States but in the country’s territories as well. The U.S. Virgin Islands, for example, had been hammered by the depression like much of the rest of the country—with high levels of unemployment and limited opportunities for economic development or growth.³⁰⁹ Notably, however, the Virgin Islands have access to a significant consumer commodity: rum.³¹⁰

Roosevelt himself ran for president supporting a constitutional amendment to reverse prohibition,³¹¹ and after the amendment passed, the New Dealers tasked with improving economic fortunes on the Virgin Islands conceived the idea of creating a public factory for rum.³¹² The factory would provide employment for local people, sell rum to the consumer market, and deliver profits back into the community to address housing, health, and other local needs.³¹³ The government stepped in where the private sector would not: commercial sugar and rum producers refused to invest in the Virgin Islands, which they deemed unduly risky and insufficiently profitable.³¹⁴ Roosevelt himself approved the name of the rum—Government House Rum—a name

³⁰⁵ Daniel Schneider, *Purification or Profit: Milwaukee and the Contradictions of Sludge*, in HISTORIES OF THE DUSTHEAP: WASTE, MATERIAL CULTURES, SOCIAL JUSTICE 171 (Stephanie Foote & Elizabeth Mazzolini eds. 2012) (“[S]anitariums had been pursuing the idea that the nutrients retained in domestic and industrial waste could make sewage treatment pay for itself by recycling sewage sludge into fertilizer. Towns could purify their sewage and make a profit too.”).

³⁰⁶ *Why Use Milorganite?*, MILORGANITE, <https://www.milorganite.com/what-is-milorganite/why-use-milorganite>.

³⁰⁷ *About Us*, MILORGANITE, <https://www.milorganite.com/about-us>.

³⁰⁸ Dreier, *supra* note 304.

³⁰⁹ See Kathryn S. Olmsted & Eric Rauchway, *Virgin Islands Company*, in HOW THE NEW DEAL WAS RUN *8-*9 (Ganesh Sitaraman & Sarah Igo eds.) (forthcoming) (draft on file with authors).

³¹⁰ *Id.* at *14.

³¹¹ See DONALD A. RITCHIE, *ELECTING FDR: THE NEW DEAL CAMPAIGN OF 1932* 110 (2007).

³¹² Olmsted & Rauchway, *supra* note 309, at *16.

³¹³ *Id.* at *14-15.

³¹⁴ *Id.* at *15.

that would conjure romantic ideas of colonialism. It also indicated public ownership and validation—a stamp of approval that retailers and distributors believed consumers would trust coming out of Prohibition.³¹⁵ Government House Rum proved successful on the commercial market and transformed the Virgin Islands' economy, providing a guaranteed market for local sugar farmers and securing full employment for the islanders.³¹⁶ However, in 1945, congressional opponents successfully pushed for the company's privatization.³¹⁷

6. *Factories for Economic Development*

Some states—particularly in the South—also used publicly-owned factory sites to recruit new industry for economic development. These states and localities used public funding to build GOCO factories as a way of enticing new industrial recruits to low-cost manufacturing spaces.³¹⁸ In 1936, Mississippi established the Balance Agriculture with Industry (BAWI) program, one of the nation's first state-level economic development plans. In pursuit of new industry and jobs, BAWI created a program to use public funds to offer inducements to manufacturers, including by allowing local governments to purchase land and build factories that were then leased to private manufacturers.³¹⁹ The public factories were financed by private bonds. Their manufacturer-operators could either agree to purchase the plants over a twenty-year period, or to rent them at below-market rates while guaranteeing certain employment levels.³²⁰ Local governments also retained the power to operate the public factories themselves, though it does not appear any exercised this authority.³²¹

During its initial four-year period in effect, BAWI brought twelve new manufacturing companies to Mississippi, including a shipyard, a tire plant, and several apparel producers, adding over 12,000 new jobs.³²² The program's textile firms particularly yielded employment gains for women, which

³¹⁵ *Id.* at *29, *35.

³¹⁶ *Id.* at *17.

³¹⁷ *Id.* at *36-37.

³¹⁸ See WHITE, BILLIONS FOR DEFENSE at 143-44.

³¹⁹ *Balance Agriculture with Industry Program (BAWI)*, MISS. ENCYCLOPEDIA, <https://mississippiencyclopedia.org/entries/balance-agriculture-with-industry-program/>.

³²⁰ ALBERT LEPAWSKY, STATE PLANNING AND ECONOMIC DEVELOPMENT IN THE SOUTH 72-73 (1949).

³²¹ *Id.* at 73.

³²² See Ernest J. Hopkins, *Mississippi's BAWI Plan: An Experiment in Industrial Subsidization*, FED. RSRV. BANK OF ATLANTA, at 7-8 (Jan. 1944), available at https://fraser.stlouisfed.org/files/docs/historical/frbatl/research/194401_frbatl_mississip_pibawiplan.pdf.

persisted for decades even after BAWI's end.³²³ The program also spurred a sense of economic democracy in the firms' host communities—as researchers at the Federal Reserve Bank of Atlanta found, BAWI's public factories cultivated an “attitude of interest or sponsorship continuously taken by some communities and their officials in the affairs of the manufacturing enterprises[.]”³²⁴ Those researchers further found that in much of Mississippi, “daily familiarity with the factories in publicly owned buildings has left no more consciousness of an anomalous situation than is felt by the average rider on a publicly constructed subway that is leased for private operation.”³²⁵ As one community banker put it, “The BAWI plan was socialistic in its tendency, but it worked.”³²⁶

Other governments in the South followed suit. In the 1940s, one Arkansas city built a public shoe factory financed by profits earned by its municipal power plants.³²⁷ In 1949 and 1951, Alabama passed the Cater and Wallace Acts (the latter of which was sponsored by future governor George Wallace) that enacted an industrial policy substantially similar to Mississippi's BAWI program.³²⁸ The Acts authorized nonprofit public corporations and municipalities to issue bonds to develop industrial sites, including public factories. As municipal property, these factories were exempt from property taxation.³²⁹ The bonds were then repaid from rents paid by the industrial tenants of the factories.³³⁰

Several decades later, a collection of localities attempted to create public factories to stave off economic *disinvestment*. In the 1980s, several Pennsylvania cities considered using eminent domain to publicly own and operate closing steel mills, establishing a multi-municipality “Steel Valley Authority” as a coordinating body.³³¹ However, the cost of financing just compensation for the mills proved insurmountable for local municipalities.³³² Elsewhere, the city of New Bedford, Massachusetts, successfully used the

³²³ Matthew Freedman, *Persistence in Industrial Policy Impacts: Evidence from Depression-era Mississippi*, 102 J. URBAN ECON. 51 (Nov. 2017).

³²⁴ Hopkins, *supra* note 322, at 9.

³²⁵ *Id.* at 33.

³²⁶ *Id.* at 61 n.24.

³²⁷ LEPAWSKY, *supra* note 320, at 70.

³²⁸ *Wallace and Cater Acts*, ENCYCLOPEDIA OF ALA., <https://encyclopediaofalabama.org/article/wallace-and-cater-acts/>.

³²⁹ ANNE PERMALOFF & CARL GRAFTON, *POLITICAL POWER IN ALABAMA* 42 (1995).

³³⁰ *Id.*

³³¹ See Joseph S. Hornack & Staughton Lynd, *The Steel Valley Authority*, 15 N.Y.U. REV. L. & SOC. CHANGE 113 (1986).

³³² *Id.* at 122-23.

threat of eminent domain to keep a local factory from closing.³³³ In Utah, advocates proposed (to no avail) using eminent domain authority to purchase a steel mill closed by U.S. Steel—a plant originally built by the Defense Plant Corporation during World War II.³³⁴

II. THE CASE FOR PUBLIC FACTORIES

The American tradition of public factories has been longstanding, geographically expansive, and sectorally broad. The central question, therefore, should not concern the legitimacy or novelty of public factories, but rather the circumstances and conditions where they may be valuable. This Part draws on the history detailed in Part I to outline the normative case for public factories, while addressing practical considerations and noting tensions and counterarguments.

A. *Why Public Factories?*

In the United States, public factories have generally been deployed because they ensure essential production, spur domestic development of industry, improve markets, and create positive spillovers. As a tool, they also have efficiency benefits, and they ensure public control and the expansion of state capacity.

1. *Essential Production*

When deployed throughout American history, public factories have most commonly been used to produce essential, critical, or strategic goods to achieve socially optimal levels of production and, in some cases, distribution. Most obviously, public factories have been deployed to produce national defense-related products. Defense-related products have often been deemed too important to entrust to the market’s “casual speculations of individual adventure,” as Hamilton put it.³³⁵ Accordingly, the federal government has regularly created defense-related public factories such as the Revolutionary War era’s state-owned “ropewalks,” gunpowder mills, and the national armory system.³³⁶ During World War II, President Roosevelt recognized that the

³³³ *Id.* at 124; see also *Government: Nationalization – American Style*, TIME (Jun. 18, 1984), <https://time.com/archive/6884283/government-nationalization-american-style/>. Some scholars have argued that a collective reliance interest entitles workers to a property interest in the factories that employ them. See Joseph William Singer, *The Reliance Interest in Property*, 40 STAN. L. REV. 611 (1988)

³³⁴ See Hornack & Lynd, *supra* note 331, at 120.

³³⁵ Alexander Hamilton, *Report on the Subject of Manufactures*, in THE REPORTS OF ALEXANDER HAMILTON 184 (Jacob E. Cooke ed. 1964).

³³⁶ See *supra* Section I.A.1.

market's profit demands would forestall it from making necessary capital investments on the timescale the public needed.³³⁷ Indeed, even standard economic theory recognizes that the collective defense will likely be underprovided by the private market.³³⁸ Given that defense services often combine significant fixed costs, temporarily expanded use, and non-remuneration, there are even strong arguments that they should not be coordinated by markets at all.³³⁹

Public factories have also been created to produce certain life- and health-sustaining essential goods, and to ensure their quality. Vaccination efforts create positive externalities by mitigating the spread of disease and advancing the general public health.³⁴⁰ Conversely, contaminated or ineffective vaccines injure the public and impose negative externalities by discrediting public health campaigns. And ensuring broad access to basic living essentials, including to the poor who may otherwise be priced out, serves a variety of public policy goals.³⁴¹ Policymakers have thus responded by authorizing public factories for vaccines, ice, and other livelihood essentials.

Public factories have also been established to ensure resilience—to secure domestic supply-chains and build stockpiles of critical materials. A 2025 White House report defined “resilience” as “the ability to prepare for threats and hazards, adapt to changing conditions, and withstand and recover rapidly from adverse conditions and disruptions.”³⁴² In some cases, public factories may expand domestic production of goods that are otherwise predominantly produced outside the United States but are subject to real or potential adverse policy actions by foreign governments. The early weapons armories established under President Washington were aimed at bolstering the young country's resilience against supply chain disruptions by domestically producing and stockpiling effective arms.³⁴³ During the early 1900s, advocates for a public factory for naval armor plates argued that such a factory would

³³⁷ See *supra* Section I.A.2.

³³⁸ KRUGMAN & WELLS, *supra* note 10, at 494; cf. N. GREGORY MANKIW, *PRINCIPLES OF ECONOMICS* 217 (7th ed. 2015) (classifying the national defense as a public good).

³³⁹ See KRUGMAN & WELLS, *supra* note 10, at 494.

³⁴⁰ See Bryan L. Boulier, Tejwant S. Datta & Robert S. Goldfarb, *Vaccination Externalities*, 7 B.E. J. ECON. ANALYSIS & POL'Y 1 (2007).

³⁴¹ This is true even for neoclassical economists. See, e.g., MANKIW, *supra* note 338, at 220 (classifying government anti-poverty programs as public goods).

³⁴² THE WHITE HOUSE, NATIONAL RESILIENCE STRATEGY 4 (Jan. 2025), <https://bidenwhitehouse.archives.gov/wp-content/uploads/2025/01/National-Resilience-Strategy.pdf>; see also Doni Bloomfield & Jeff Gordon, *The Law and Economics of Resilience*, 103 WASH. U. L. REV. 1149, 1159 (2026) (“[R]esilience [is] the ability of markets to reliably and optimally meet demand for goods and services across a range of circumstances.”).

³⁴³ See *supra* Section I.A.1.

enhance the country's national security resilience.³⁴⁴ During World War II, the government's synthetic rubber factories helped secure the country's resilience for that critical military resource after Japan curtailed access to natural rubber imports.³⁴⁵

These uses of public factories align even with conventional economic theory, which posits that markets will efficiently allocate scarce goods and services only under specific conditions: namely, perfect competition, complete information, low transaction costs, and comprehensive well-defined property rights.³⁴⁶ When those conditions are not met, markets may fail to yield optimal levels of production.

Market failures can be caused by social costs and benefits that are not captured in the terms of a transaction because they are borne by non-parties, such as positive or negative externalities and public goods.³⁴⁷ Positive or negative externalities can also cause goods to be mispriced relative to their actual social value, leading the market to misallocate production levels.³⁴⁸ Firms may also underinvest in production that creates public goods that spill over to other parties without compensation.³⁴⁹

Policymakers have thus adopted public factories when markets have been unable fulfill the public's production needs. In some circumstances, principal-agent problems prevent the government from effectively delegating production to the market because of misaligned incentives.³⁵⁰ Because the market seeks to maximize profits, it may produce goods that are too costly, too substandard, or too meager to meet an exacting public need. By creating public factories when privatized production has failed to meet public needs, policymakers have heeded the adage, "If you want something done right, do it yourself."³⁵¹

³⁴⁴ See *supra* Section I.A.2.

³⁴⁵ See *supra* Section I.A.2.

³⁴⁶ MANKIW, *supra* note 338, at 150.

³⁴⁷ KRUGMAN & WELLS, *supra* note 10, at 124.

³⁴⁸ *Id.* at 196; see also ARTHUR C. PIGOU, *THE ECONOMICS OF WELFARE* (1920).

³⁴⁹ KRUGMAN & WELLS, *supra* note 10, at 490-91.

³⁵⁰ See Jody Freeman, *The Contracting State*, 26 FLA. ST. L. REV. 156, 175 (2000) (discussing principal-agent problems raised by "contracting out" public services); see also Oliver Hart, *An Economist's Perspective on the Theory of the Firm*, 89 COLUM. L. REV. 1757 (1989); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305, 312-30, 333-43 (1976).

³⁵¹ See David E.M. Sappington, *Incentives in Principal-Agent Relationships*, 5 J. ECON. PERSPS. 45 (1991).

2. *Developmentalism, Abundance, and Innovation*

Public factories have also been part of a “developmentalist” strategy to encourage infant industry and build capacity and supply for production within specific sectors.³⁵² For example, southern states used public factories to jumpstart economic development,³⁵³ and the Roosevelt administration used them to accelerate synthetic rubber development.³⁵⁴ Policymakers can thus use public factories to pursue social goals related to long-term strategic plans for economic development.³⁵⁵ Reaching those goals may require policymakers to envision new economic sectors “not yet . . . fathomed by the private sector,” as the economist Mariana Mazzucato puts it.³⁵⁶ Public factories can thus fill production voids not just where the market has failed, but where the market hasn’t even ventured.

One of the aims of developmentalism can be to ensure economic stabilization and development, including to create jobs, ensure family livelihoods, and stimulate the local and national economy. During the Civil War, public factories were promoted in part as means of employment for women whose male relatives were fighting in the war, and thus a means to stabilize family incomes.³⁵⁷ When the TVA produced fertilizer, it turned its excess supply into a welfare program by steering it to farmers in poor states.³⁵⁸ The Virgin Islands Company’s ambitious program to develop Government House Rum was part of a broader developmentalist strategy to improve economic development and growth in the territory.³⁵⁹ And Southern programs for public factories, like Mississippi’s BAWI plan, were explicitly targeted at regional economic development and drawing new industry through low-cost facilities.³⁶⁰

³⁵² For the classic, coining the developmentalist framing, see CHALMERS JOHNSON, *MITI AND THE JAPANESE MIRACLE* (1982).

³⁵³ *See supra* Section I.C.6.

³⁵⁴ *See supra* Section I.A.2.

³⁵⁵ *Cf.* Robert C. Hockett & Saule T. Omarova, *Public Actors in Private Markets: Toward a Developmental Finance State*, 93 WASH. L. REV. 103, 120 (2015).

³⁵⁶ MARIANA MAZZUCATO, *THE ENTREPRENEURIAL STATE: DEBUNKING PUBLIC VS. PRIVATE SECTOR MYTHS* 22 (2014).

³⁵⁷ *See supra* Section I.A.1.

³⁵⁸ *See supra* Section I.A.2.

³⁵⁹ *See supra* Section I.C.5.

³⁶⁰ *See supra* Section I.C.6.

PUBLIC FACTORIES

More broadly, public factories have been a supply-side intervention to alleviate scarcity and promote abundance.³⁶¹ For example, during World War II, the DPC's public factories secured an abundant supply of aircraft and other necessary military resources in response to private industry's reluctance to make capital-intensive capacity investments.³⁶² President Truman's proposal for government-run steel mills intended, as he put it, to overcome "bottleneck[s]" in steel production that were "the reason we can't get most of the goods that we want."³⁶³

Public factories have also been deployed to promote and accelerate scientific and technological discovery and development. Because of its spillover effects, innovation—especially novel or experimental innovation with limited near-term market commercial potential—is a public good underprovided by the market.³⁶⁴ To generate under-provided innovation, policymakers have used public factories for products like synthetic rubber, novel vaccines, and experimental fertilizers.³⁶⁵ For example, the Springfield armory pioneered innovative industrial methods like interchangeable parts and assembly-line style mass production, leading to advanced manufacturing techniques that subsequently proliferated during the Second Industrial Revolution.³⁶⁶ The TVA's fertilizer production program focused on developing more advanced agricultural products.³⁶⁷ During World War II, government factories helped rapidly incubate nascent synthetic rubber technology.³⁶⁸ The Department of Defense's pilot vaccine lab likewise engages in small-scale manufacture of new treatments for research and development.³⁶⁹

³⁶¹ See Ezra Klein, *The Ezra Klein Show: Abundance and the Left*, N.Y. TIMES (Apr. 29 2025), <https://www.nytimes.com/2025/04/29/opinion/ezra-klein-podcast-saikat-chakrabarti-zephyr-teachout.html> (discussing the prospect of a revived Reconstruction Finance Corporation as a means to promote abundance).

³⁶² See *supra* Section I.A.2.

³⁶³ *The President's News Conference*, HARRY S. TRUMAN LIBRARY & MUSEUM (Jan. 7, 1949), <https://www.trumanlibrary.gov/library/public-papers/4/presidents-news-conference-0>.

³⁶⁴ See Kevin A. Bryan & Heidi L. Williams, *Innovation: Market Failures and Public Policies*, in 5 HANDBOOK OF INDUS. ORGS. 281 (2021) ("[T]he social value of new ideas includes significant externalities").

³⁶⁵ See *supra* Sections I.A.2, I.B.2 & I.C.1.

³⁶⁶ See DAVID HOUNSHELL, FROM THE AMERICAN SYSTEM TO MASS PRODUCTION, 1800-1932 44 (1984); see also Merritt Roe Smith, *Army Ordnance and the "American System" of Manufacturing, 1815-1861*, in MILITARY ENTERPRISE AND TECHNOLOGICAL CHANGE: PERSPECTIVES ON THE AMERICAN EXPERIENCE 44 (Merritt Roe Smith ed. 1985) (bureaucratic effort to standardize arms production at the armories "set the stage for . . . the eventual transformation of the American industrial system").

³⁶⁷ See *supra* Section I.B.2.

³⁶⁸ See *supra* Section I.A.2.

³⁶⁹ See *supra* Section I.C.1.

3. *Competition and Antimonopoly*

When powerful firms acquire market power, they can extract excess profits by increasing prices and reducing output.³⁷⁰ Many of the public factories established throughout American history were aimed at alleviating monopoly power and dissatisfactory private sector output. Public concerns have often centered around objections to private profiteering and overcharging, excessive private power, subpar quality of private production, and the need for a “yardstick” alternative to encourage competition and measure performance. Indeed, President Franklin Roosevelt described the threat of government directly entering an industry as a “birch rod in the cupboard” to discipline private firms that failed to offer acceptable service and pricing.³⁷¹ Public factories, like public options more broadly, can potentially spur socially beneficial competitive dynamics with private monopolies or oligopolies without direct regulation.³⁷²

For example, the public armories promoted by President Washington and Secretary Hamilton in the 1790s were a response to their concerns with private profiteering and the shoddy quality of arms from private producers.³⁷³ Congressional investigations showing high prices in the armor plate industry in the 1910s led to the public armor plate factory to prevent monopolistic price gouging.³⁷⁴ During World War II, the DPC’s system of leasing government-owned factories to private manufacturers “reflected the efforts of progressive New Deal lawyers to limit the potential gains of war contractors.”³⁷⁵ And at the war’s close, some of those same administration attorneys, though ultimately overruled, argued for retaining government ownership over the DPC’s factories as standard-setting public options to keep private manufacturers honest in their costs and pricing.³⁷⁶

Unlike public factories, public utilities generally provide services, not goods, especially those that are characterized by natural oligopolies or

³⁷⁰ MANKIW, *supra* note 338, at 303.

³⁷¹ Associated Press, *Gov. Roosevelt’s Address in Milwaukee*, N.Y. TIMES, Oct. 1, 1932, at 8, available at <https://timesmachine.nytimes.com/timesmachine/1932/10/01/105873523.html?pagenumber=8> (describing “‘birch rod[s]’ in the cupboard” including “the principle of public policy which would allow any community...to engage in the supplying of electricity...to supply them and industry if such community or district believe that they are unable to obtain adequately low rates or adequately good service from the private company”).

³⁷² SITARAMAN & ALSTOTT, *supra* note 130, at 39.

³⁷³ See *supra* Section I.A.1.

³⁷⁴ See *supra* Section I.A.1.

³⁷⁵ WILSON, DESTRUCTIVE CREATION at 76.

³⁷⁶ See *supra* Section I.A.2.

monopolies.³⁷⁷ However, there can be some fluidity between the two approaches, and governments using public factories for processing commodities have often done so for antimonopoly reasons. For example, North Dakota’s public flour mill was an effort to protect farmers from the monopoly power of private mills and railroads.³⁷⁸ Timber processing and other commodity processing have similar features: Competition at the point when the commodity needs to be processed might not be feasible or likely given capital costs or other dynamics. The resultant monopoly power might best be addressed via public utility regulation or the creation of a public facility. As one example, proponents compared ice to public utilities when advocating for public ice plants.³⁷⁹ Moreover, while Tarboro, North Carolina, established a public milk plant, in 1922, Rahway, New Jersey, declared milk a public utility and contracted with producers to offer low-cost milk to its residents through municipal milk stations installed in local grocery stores.³⁸⁰

4. *Efficiency*

Perhaps most surprisingly given common rhetoric about government, public factories can be more efficient and cost effective than subsidizing private production. Private production is often inhibited by business uncertainty: production that entails significant upfront expenditure and lengthy time horizons for prospective returns will be particularly unappealing to capital investors that can obtain more predictable and immediate profits elsewhere.³⁸¹ As economists Andrew Bossie and J.W. Mason have explained, “exceptionally large profits are needed to offset uncertainty; thus, a program that focuses on incentives runs the risk of simultaneously generating too little investment and creating excessively large payouts for the firms that do participate.”³⁸² Rather than topping off profits on the back end, the

³⁷⁷ See MORGAN RICKS, GANESH SITARAMAN, SHELLEY WELTON & LEV MENAND, NETWORKS, PLATFORMS & UTILITIES: LAW & POLICY 8-9 (2022).

³⁷⁸ See *supra* Section I.B.4.

³⁷⁹ See *supra* note 278 and accompanying text.

³⁸⁰ See *Municipal Milk Stations*, 28 AM. CITY MAG. 364, 364 (Apr. 1923), available at <https://tinyurl.com/283bxs3k>.

³⁸¹ See HA-JOON CHANG, BAD SAMARITANS: THE MYTH OF FREE TRADE AND THE SECRET HISTORY OF CAPITALISM 112 (2007) (“Precisely because money can move around quickly, capital markets have an inherent bias toward short-term gains and do not like risky, large-scale projects with long gestation periods.”).

³⁸² Andrew Bossie & J.W. Mason, *The Public Role in Economic Transformation: Lessons from World War II*, ROOSEVELT INST. 8 (Mar. 2020), https://rooseveltinstitute.org/wp-content/uploads/2020/07/RI_WWII_Working-Paper_202003-1.pdf; see also *id.* at 19 (“Returns that are uncertain or far off, even if they are likely to end up being quite high, may be unacceptable to private investors, especially if—as with major new investment—there is the need for substantial financial commitment at the outset.”).

government can more effectively offset business uncertainty by taking on the risk of front-end capital investment by building government owned, contractor operated (GOCO) factories. That was the case during World War II, where business uncertainty made firms hesitant to rely on multi-year government reimbursement contracts for their mobilization-related expansion, preferring instead to lease new DPC-owned plants.³⁸³

In some circumstances, public factories may have a lower net fiscal impact than subsidies. A subsidy regime typically involves only direct government expenditures without direct government revenue (beyond increased tax revenues). Public factories, on the other hand, involve upfront capital expenditures by the state, but then generate revenue: GOGOs through the sale of their goods, and GOCOs through lease payments (and, if contracted for, royalties on sales). Public factories can therefore be structured to break even to cover their operating and capital expenditures—or even to generate a modest profit for the public. In either case, their impact on the public budget is either neutral or positive, whereas a subsidy regime’s impact is negative.

By design, some public factories may opt to merely break even rather than seek a profit.³⁸⁴ Such not-for-profit public factories may wind up being more efficient than private-sector producers. GOGO factories have the unique ability to produce at levels to cover their costs and operating expenses, without needing to earn the profits demanded by private investors. Indeed, opponents of various types of public options have bemoaned that they create “unfair competition” and “tilt the playing field” against for-profit private firms.³⁸⁵ At many points in history—especially in the defense context—policymakers have discovered that in-house production is a better bargain than outsourcing to private contractors. For instance, the government’s reliance on public factories during World War II enabled it to obtain defense supplies at better

³⁸³ See *supra* Section I.A.2.

³⁸⁴ See HANNA, *supra* note 222, at 39 (“[B]ecause publicly owned enterprises often exist to fulfill social, not just market, requirements, such traditional measures of efficiency are not always adequate as the basis on which to make comprehensive judgements. [...] [E]fficiency in the public sector is not just about maximizing the quantity of production outputs and minimizing the cost of production inputs”).

³⁸⁵ See *supra* note 184 and accompanying text (opponents of TVA fertilizer production decrying unfair competition). See also WILSON, *DESTRUCTIVE CREATION* at 267 (“Business leaders were especially dismayed, according to the Hoover II summary, that they ‘must face the unfair competition of Government-financed and tax-free business.’”); John S. Hoff, *The Public Health Insurance Option: Unfair Competition on a Tilting Field*, HERITAGE FOUND. (Aug. 26, 2009), <https://www.heritage.org/health-care-reform/report/the-public-health-insurance-option-unfair-competition-tilting-field> (arguing that a public health insurance option would “enjoy[] a number of advantages” over private competitors).

prices than if it had procured weapons from private manufacturers.³⁸⁶ Public ice plants enabled cities to provide ice at lower costs than the private “ice trusts.”³⁸⁷

This cost advantage for public production has been noted and celebrated in the past: In a 1910 report to President William Howard Taft, Secretary of War Jacob M. Dickinson observed that the military department responsible for producing ammunition and weapons “has been able to manufacture its products more cheaply than private manufacturers, contrary to the commonly accepted opinion that government manufactures cost more than similar articles [that] can be purchased from private concerns[.]”³⁸⁸ Dickinson attributed these cost savings to the government’s “great advantage . . . of not being obliged to add a charge for profit.”³⁸⁹

Moreover, private operators may also find public GOCO factories to be more efficient than subsidy programs from an administrative perspective. During World War II, many manufacturers came to prefer the simplicity of operating DPC-owned factories to the comparative complexity and risk of claiming NDAC-issued subsidies.³⁹⁰ Today, many subsidy programs are administered through the tax code, rendering them complex for many firms and virtually inaccessible for some. For example, to recoup the full value of energy-related tax credits, developers without sufficient tax liability have had to sell their credits on the tax equity market by partnering with investor banks, which often costs up to 15 percent of the value of the subsidy.³⁹¹ While the Inflation Reduction Act introduced important reforms to make these credits more accessible, claiming them still entails administrative burdens that erode their real value and disadvantage smaller firms that lack the legal, accounting, and finance resources of larger incumbents.³⁹² Public factories may provide a more accessible means for private factory operators, and would avoid diverting a portion of the value of public industrial policy spending to financial middlemen.

³⁸⁶ Robert M. Howard & Shawn T. Cobb, *Victory Through Production: Are Legacy Costs of War Scuttling the “Goco Model”?*, 46 PUB. CONT. L.J. 259, 265 (2017) (“The GOCO program . . . allowed the U.S. government to obtain its military weapons at a dramatically lower cost.”).

³⁸⁷ See *supra* Section I.C.2.

³⁸⁸ U.S. DEPT. OF WAR, ANNUAL REPORTS OF THE WAR DEPARTMENT 42 (1910), available at <https://tinyurl.com/5nym5w4h>.

³⁸⁹ *Id.*

³⁹⁰ See *supra* Section I.A.2.

³⁹¹ *Understanding Direct Pay and Transferability for Tax Credits in the Inflation Reduction Act*, CTR. FOR AM. PROGRESS (Jun. 5, 2023), <https://www.americanprogress.org/article/understanding-direct-pay-and-transferability-for-tax-credits-in-the-inflation-reduction-act/>.

³⁹² *Id.*

Public factories also enjoy other cost advantages. Some may be exempt from certain forms of taxation.³⁹³ Their government association also generally means lower costs for insurance, payroll, and financing.³⁹⁴ Because the government can often borrow at lower interest rates than private firms, the total cost to finance a factory will be lower if the government builds it. This dynamic is particularly important during periods of elevated interest rates, which render fewer expansions of manufacturing capacity financially viable.³⁹⁵ When private firms face higher borrowing costs, a greater share of a subsidy will be consumed by financing expenses. This could be partially avoided by the government building the factory itself. Thus, public factories can offset some of the critical capital disinvestment caused by tight monetary policy.

Subsidies and payments directed toward private industry can also become targets for firm, and ultimately shareholder, capture. This can occur through at least two channels: First, subsidized firms may attempt to price-gouge the government. If the public demand for the subsidized good is highly inelastic (such that demand holds steady despite increases in price), and there are barriers to entry or high degrees of concentration in the provisioning sector, the government is vulnerable to being price-gouged for financing the activity.³⁹⁶ This can include direct price-gouging by marking up the sticker price of the good, as well as indirect price-gouging by lobbying for more generous tax subsidies.³⁹⁷ Governments can protect the public from private-sector rent-seeking by moving such production in-house.

³⁹³ For example, “[b]ecause it is owned by the state of North Dakota, [the North Dakota Flour Mill] is not subject to state or federal income tax.” Josh Sosland, *Unique company takes different path in flour milling*, BAKING BUS. (Nov. 17, 2022), <https://www.bakingbusiness.com/articles/57837-unique-company-takes-different-path-in-flour-milling>.

³⁹⁴ See U.S. DEPT. OF WAR, *supra* note 388, at 42-43.

³⁹⁵ See Kate Magill, *High interest rates are stalling manufacturing growth: May PMI*, MFR. DIVE (Jun. 3, 2024), <https://www.manufacturingdive.com/news/may-2024-pmi-institute-supply-management-interest-rates-manufacturing/717800/>.

³⁹⁶ Cf. Steven M. Teles, Samuel Hammond, & Daniel Takash, *Cost Disease Socialism: How Subsidizing Costs While Restricting Supply Drives America’s Fiscal Imbalance*, NISKANEN CTR. (Sept. 2021), <https://www.niskanencenter.org/wp-content/uploads/2021/09/Cost-Disease-Socialism.pdf> (arguing that subsidization of supply-constrained sectors leads to cost-increase spirals).

³⁹⁷ For example, industry successfully lobbied the Biden administration for a more generous interpretation of the Inflation Reduction Act’s hydrogen tax credit. See Brad Plumer, *After Fierce Lobbying, Treasury Sets Rules for Billions in Hydrogen Subsidies*, N.Y. TIMES (Jan. 3, 2025), <https://www.nytimes.com/2025/01/03/climate/hydrogen-subsidies-biden-treasury.html>.

Second, shareholders and investors may attempt to capture subsidies for themselves. Subsidies may flow through to shareholders via stock dividends, share buybacks, and private equity roll-ups of subsidized industries that reduce competition and increase prices. For instance, after the federal government began offering a variety of incentives for the production and installation of electric heat pumps through the Inflation Reduction Act and other national initiatives, the private equity industry intensified its investment activity in the heat pump supply chain, leading to increased consolidation and higher prices that functionally diverted public subsidies to shareholders.³⁹⁸ Direct government production would avoid these anti-competitive and subsidy-siphoning tendencies.

5. *Public Control and Responsibility*

There are also benefits of public factories being *public*. First, public factories can be directed to produce the publicly-desired goods immediately. In contrast, the public loses control over its investment when it is dependent on private-sector decision-making, as it is with subsidies.³⁹⁹ Private firms can abandon a project, no matter how socially important, if revenue projections or market conditions change. Subsidized firms can go bankrupt, leaving the government with no rights to keep their factories operating. Firms may also demand additional rounds of subsidies to complete a project, forcing policymakers to either eat sunk costs or potentially throw good public money after bad. Some socially-important goods, such as clean energy or generic drugs, may offer too little return on investment for the private sector to produce absent exceptional public subsidies.⁴⁰⁰ Conditions on subsidies can help mitigate this problem somewhat, but as we shall see in Part III, they also have some drawbacks.⁴⁰¹

Public factories, on the other hand, retain public control, and are immune from business cycles and shareholder short-termism. GOCO factories give the government ownership over an industrial asset that, unlike subsidies, can be repurposed: if one firm flounders or relocates, a public factory can be leased to another one.⁴⁰² This mitigates the government’s risk of “betting on the

³⁹⁸ Michael Murray, *Lessons From the Heat Pump Market*, AM. ECON. LIBERTIES PROJ. (Oct. 16, 2023), <https://www.economicliberties.us/our-work/lessons-from-the-heat-pump-market/>.

³⁹⁹ See Joel Dodge, *In Defense of Everything-Bagel Liberalism*, WASH. MONTHLY (Apr. 24, 2025), <https://washingtonmonthly.com/2025/04/24/in-defense-of-everything-bagel-liberalism/>.

⁴⁰⁰ See generally BRETT CHRISTOPHERS, *THE PRICE IS WRONG: WHY CAPITALISM WON’T SAVE THE PLANET* (2024).

⁴⁰¹ See *infra* Section III.C.

⁴⁰² Cf. Jeff Gordon, *Picking Winners: Industrial Policy and Monopoly* 46-49 (2026), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6433579.

wrong horse.”⁴⁰³ For both GOGOs and GOCOs, public factories are a simpler path to achieving the desired goal.

Public factories also do not suffer from the “submerged state” problem.⁴⁰⁴ When the government acts as a background funder in a private firm’s project, the public may have difficulty recognizing its role in launching that production facility.⁴⁰⁵ Because the private sector receives popular credit for government-enabled work, subsidized production distorts political feedback and accountability.⁴⁰⁶ Public factories avoid this political confusion by making the governmental role more prominently visible.

6. Public Assets

Public factories can also be a way to utilize and serve as public assets. First, public factories can be means of making use of, and monetizing, untapped resources that already belong to the public. Milwaukee made use of the wastewater sludge in its sewage system to produce and sell fertilizer.⁴⁰⁷ South

⁴⁰³ This is a common critique of industrial policy. *See, e.g.,* Franco Ordonez, *The White House has a windfall to spend on semiconductor projects*, NPR (Oct. 6, 2022), <https://www.npr.org/2022/10/06/1127158903/the-white-house-has-a-windfall-to-spend-on-semiconductor-projects>.

⁴⁰⁴ *See generally* SUZANNE METTLER, *THE SUBMERGED STATE: HOW INVISIBLE GOVERNMENT POLICIES UNDERMINE AMERICAN DEMOCRACY* (2011).

⁴⁰⁵ *See, e.g.,* Matt Huber, *Why the Rust Belt spurned Bidenomics*, NEW STATESMAN (Nov. 21, 2024), <https://www.newstatesman.com/international-politics/economy-international-politics/2024/11/why-the-rust-belt-spurned-bidenomics> (“I would guess most voters in the wider Syracuse area have little idea that this investment is linked to the government legislation. By centring the private sector, they made the government’s role invisible. Likewise, the Inflation Reduction Act (IRA) used tax credits to attract high levels of mostly private investment, but those investments come under the names of firms like Ford and First Solar.”); Tonya Mosley, *Understanding the resurgence of jobs in America’s ‘left’ behind’ counties*, NPR (Jul. 11, 2024), <https://www.npr.org/2024/07/11/g-s1-9460/understanding-the-resurgence-of-jobs-in-americas-left-behind-counties> (“[A] lot of this is private industry that is choosing to invest because the tax credits and the like have spurred them into action. And so they’re putting up a ford sign, not a – there’s no government sign around it saying, this was your tax dollars at work. So it’s a much harder challenge for workers to make the connections to public policy.”). *See also* Alexander F. Gazmararian & Nathan M. Jensen et al., *Why Biden-era Clean Energy Investment Policies Had Limited Political Returns*, 123 PNAS 9 (2026), <https://www.pnas.org/doi/10.1073/pnas.2526802123> (finding that investments under the Inflation Reduction Act were largely “not traceable to the federal government” among Americans).

⁴⁰⁶ *Cf.* Mariana Mazzucato, *The Broken Economic Order*, FOREIGN AFFS. (Feb. 25, 2025), <https://www.foreignaffairs.com/south-africa/broken-economic-order-mariana-mazzucato> (arguing that “the success of [Tesla and SpaceX] is a result of state support: Tesla has received at least \$4.9 billion in government subsidies, and SpaceX relies heavily on NASA contracts and technology and staff that were developed and trained at NASA.”).

⁴⁰⁷ *See supra* Section I.C.4.

Dakota tapped into its natural limestone resources to produce and sell cement.⁴⁰⁸ Weatherford, Oklahoma, used utility byproducts to produce and sell ice.⁴⁰⁹

Second, and relatedly, public factories can be sources of public wealth generation. For example, South Dakota's public cement plant was long a revenue-generator for the state's treasury.⁴¹⁰ North Dakota's public flour mill boasts that it returns its profits to the state's general fund and "continues to be a valuable asset to the State of North Dakota."⁴¹¹ Secretary Harold Ickes thought the government's mobilization factories could be transferred to collective ownership by returning servicemembers so they could build asset wealth.⁴¹²

Finally, public factories provide materials and products needed for public projects. Municipal asphalt plants, for example, provided the materials for city road construction and repairs.⁴¹³ Certain public ice plants were dedicated to servicing government buildings and military bases.⁴¹⁴ Public printing through the GPO ensured in-house publication of the laws, regulations, and official proceedings of the government such that they are transparent, recorded, and known to the general public⁴¹⁵—a critical part of a rule-of-law constitutional system.

B. Designing Public Factories

The history of public factories also allows us to enumerate the most important design and implementation questions.

1. Who Builds?

Throughout U.S. history, public factories have been built at all levels of government, including national, state, and local. Determining which level of government ought to run a public factory has been a function of the nature of the product, the geographic scope of the economic concern being addressed, and the political and fiscal capacity of the governmental actor. For instance, the federal government has handled the public production of defense supplies

⁴⁰⁸ *See supra* Section I.B.3.

⁴⁰⁹ *See supra* Section I.C.2.

⁴¹⁰ *See supra* Section I.B.3.

⁴¹¹ *About Us*, N.D. MILL, <https://www.ndmill.com/about/>.

⁴¹² *See supra* Section I.A.2.

⁴¹³ *See supra* Section I.B.3.

⁴¹⁴ *See supra* Section I.C.2.

⁴¹⁵ *See supra* Section 1.B.5.

because defense needs are generally national in scope,⁴¹⁶ and because the federal government has greater fiscal latitude than state governments to handle the high costs and volumes needed. Fair prices for local wheat farmers, on the other hand, was a particular concern in North Dakota, causing it to launch a state-run flour mill.⁴¹⁷ And while insulin access is a nationwide issue, contemporary political polarization has meant that public drug manufacturing has been pursued in California and other Democratic-led states with majority coalitions committed to affordable healthcare.⁴¹⁸

Once a public factory is built, the next question is who operates it. Historically there are two modes of operation: A “GOGO” factory is both government-owned and government-operated. A “GOCO” factory is owned by the government and leased to a contractor for private operation. Each operating structure has tradeoffs involving state capacity, public versus private control, and the degree of exigency.

GOGO factories build state capacity and avoid reliance on private firms as contracting agents driven by financial interests. State capacity measures the degree of the government’s actual ability to carry through its policy objectives.⁴¹⁹ This ability can be compromised by dependence on private contractors.⁴²⁰ Firms may be unwilling to partner with the government, or may demand exorbitant terms. During World War II, founding DPC attorney Clifford Durr ultimately resigned in protest of an overly favorable lease given to Bethlehem Steel to operate a government-owned mill, objecting that the deal threatened to “seriously delay, rather than expedite, the defense program, for notice would be served upon all prospective lessees that better terms can be obtained by holding out than by cooperating.”⁴²¹ Durr added: “In times of emergency it would be fatal for the Government to concede that it is weaker than any of its corporations and that it must accede to their demands, however outrageous, in order to obtain arms and supplies with which to defend itself.”⁴²² The government could obviate this dynamic by refusing to negotiate

⁴¹⁶ See *supra* Section I.A.

⁴¹⁷ See *supra* Section I.B.4.

⁴¹⁸ See *supra* Section I.C.1.

⁴¹⁹ Theda Skocpol & Kenneth Finegold, *State Capacity and Economic Intervention in the Early New Deal*, 97 POL. SCI. Q. 255, 260 (1982).

⁴²⁰ See Jody Freeman & Martha Minow, *Introduction*, in GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY 5 (Jody Freeman & Martha Minow eds., 2009).

⁴²¹ WHITE, BILLIONS FOR DEFENSE at 47. Durr was thereafter appointed by President Roosevelt to serve as a commissioner on the Federal Communications Commission.

⁴²² *Id.*; see also Helwig, *supra* note 108 (noting that post-war audits criticized the Defense Plant Corporation for “excessive disregard of cost” and inadequate supervision of lessee performance).

and presenting firms with standard, take-it-or-leave-it leases—but that runs the risk that they may well opt to leave it. GOGO factories can avoid these potentially fraught negotiations with private companies.

On the other hand, GOCO factories may be faster to operationalize, especially in a time-sensitive crisis. GOCOs allow the government to maintain control of capital investment and use its leasing authority to direct important terms of production, such as limits on pricing and profit-taking. GOCOs also leverage private firms with existing production experience without requiring the government to rapidly develop new, difficult expertise from scratch. As a 2022 report put it, “The GOCO model ensures that the taxpayer funded capital asset will be operated for the purposes the government intends while simultaneously leveraging skillsets of private industry to ensure rapid, efficient, and cost-effective achievement of the government’s goals.”⁴²³

GOCO factories may be leased to either for-profit or non-profit producers. All else equal, production by non-profit entities will, of course, generally yield lower-cost products. Policymakers may therefore hold a general preference for non-profit lessees. However, many sectors may lack robust and qualified non-profit options, leaving for-profit producers as the only game in town.

2. *Production Goals and Levels*

The goals of public factories inform the needed production levels. Some public factories aim to *move* (or scale) the market, such as those intended to counter monopoly power or promote abundance.⁴²⁴ Such factories will produce at levels sufficient to drive down price and increase overall supply in order to prevent profiteering and shortages arising from bottlenecks or anti-competitive blockages. President Truman’s proposal for public steel mills, for example, sought to move the market for steel by increasing supply.⁴²⁵

Others may aim to *make* a market, such as those factories primarily created to enhance innovation and technological development.⁴²⁶ In the long term, these factories aspire to forge a new or improved product or technology,

⁴²³ *Deploying the Government Owned, Contractor Operated Model*, PUB. CITIZEN (Mar. 8, 2022), <https://www.citizen.org/article/deploying-the-government-owned-contractor-operated-model/>.

⁴²⁴ Cf. Robert C. Hockett & Saule T. Omarova, *Public Actors in Private Markets: Toward a Developmental Finance State*, 93 WASH. L. REV. 103, 122 (2015).

⁴²⁵ See *supra* Section I.B.1.

⁴²⁶ *Id.*

fostering an exchange of goods that doesn't currently exist.⁴²⁷ In the near term, these factories may produce only a minimal quantity for demonstration and development purposes, with mere ancillary distribution, like the TVA's public production of fertilizer.⁴²⁸

Other public factories may aim to *supersede* the market, such as certain factories created to improve resilience if supply is in significant danger of being cut off. These factories seek to overtake a market by either displacing current at-risk supply or restoring already-lost supply. They will thus aim for total production without any additional private-sector output.⁴²⁹ The Defense Plant Corporation's synthetic rubber factories, for example, aimed to supersede the lost market for natural rubber during World War II.⁴³⁰

Finally, some public factories may *supplement* the market, with relatively circumscribed production levels outside the bounds of private exchange. These include factories created for the purpose of supplying governmental projects, which will produce at levels sufficient for government consumption. Municipal asphalt plants, for example, produce at levels sufficient to meet local government's supply needs for roadwork.⁴³¹ Other supplementary public factories may prioritize economic resilience, which may only entail minimal production in order to preserve domestic capacity and ability to produce in case of an emergency.

3. *Financing*

Whether public or private, factories of all kinds can be costly to build, and require significant upfront investment. The most complex factories, such as semiconductor fabrication plants, can require many billions of dollars in upfront construction costs.⁴³² How the public sector should finance such a factory is thus a critical question.

⁴²⁷ See CHANG, *supra* note 381, at 113 (“[P]ublic enterprises have often been set up in order to kick-start capitalism, not to supersede it[.]”).

⁴²⁸ See *supra* Section I.C.4.

⁴²⁹ Conversely, some public factories may seek to supersede the market in order to *limit* total production if excess production poses social risk. After World War I, interest in nationalized military production from the Nye Commission and other stakeholders aimed in part to address the risk of private sector overproduction of weaponry. See *supra* Section I.A.1.

⁴³⁰ See *supra* Section I.A.2.

⁴³¹ See *supra* Section I.B.3.

⁴³² See Brian Potter, *How to Build a \$20 Billion Semiconductor Fab*, CONSTRUCTION PHYSICS (May 3, 2024), <https://www.construction-physics.com/p/how-to-build-a-20-billion-semiconductor>.

PUBLIC FACTORIES

At the state and local level, most governments have relied on bonds to fund the construction of public factories, while a few have wholly or partially financed factories out of general tax revenue. Mississippi and Alabama used bond financing to create public factories, which were repaid through rents from the GOCO factories' tenants.⁴³³ At the national level, public factories have typically been financed out of general tax revenue or through deficit spending.⁴³⁴

Once they are up and running, public factories have often aimed to be financially self-sustaining after the initial capital investment. These factories can even be a source of revenue generation for the national, state, or local treasury. For instance, North Dakota's public flour mill generates profits for its state by selling its products across the country; so too did South Dakota's public cement plant.⁴³⁵ Such factories, in essence, pay for themselves and generate long-term returns for the public.

Professor Saule Omarova has done the most extensive and detailed work thinking about how to finance industrial policy projects in the United States. In a series of papers, she has argued for and offered a blueprint on how to design a National Investment Authority (NIA), drawing on the model of the New Deal-Era Reconstruction Finance Corporation (RFC).⁴³⁶ The NIA would "be charged with the critical task of devising and implementing an ongoing and comprehensive long-term development strategy for the United States."⁴³⁷ Omarova envisions the NIA channeling public and private investment into under-provided socially-important goods, such as "traditional physical infrastructure[,] . . . cutting-edge clean energy and manufacturing facilities, public-transit and broadband systems, affordable housing, job retraining, and public education[.]"⁴³⁸ Omarova does not limit her focus to public factories, but the NIA would be one possible institutional structure to create them.

⁴³³ See *supra* Section I.C.6.

⁴³⁴ See *supra* Section I.A.

⁴³⁵ See *supra* Sections I.B.3 & 1.B.4.

⁴³⁶ Saule Omarova, *The National Investment Authority: A Blueprint*, BERGGRUEN INSTITUTE (Mar. 23, 2022). See also Robert C. Hockett & Saule T. Omarova, *Private Wealth and Public Goods: A Case for a National Investment Authority*, 43 J. CORP. L. 437 (2018); Saule T. Omarova & Brian Richardson, *Public Investment as Constitutional Power and Accountability Challenge*, 92 U. CHI. L. REV. 461 (2025); Saule Omarova & Todd N. Tucker, *Industrial Policy Requires Public, not Just Private, Equity*, DEMOCRACY J. (Mar. 27, 2023).

⁴³⁷ Hockett & Omarova, *supra* note 435, at 439.

⁴³⁸ Saule Omarova, *Public Investment Reimagined: A National Investment Authority*, AM. PROSPECT (Dec. 1, 2020), <https://prospect.org/2020/12/01/public-investment-reimagined-a-national-investment-authority/>.

4. Location, Workforce, and Staffing

Policymakers must also determine where public factories will be physically located and who will staff them. As Durr noted at the DPC, public factories allow the government to make location decisions based on strategic considerations and other important public goals.⁴³⁹ Policymakers may consider a variety of relevant location factors, including: a location’s relative resilience against extreme weather and other physical threats; its connectivity to existing supply chains and transportation hubs; its degree of under-employment and disinvestment; the preexisting relevant skills of its workforce, or the training potential of its educational institutions; and the area’s stock of available housing and general affordability.⁴⁴⁰ For example, President George Washington personally selected Harpers Ferry as the site for one of the country’s first armories in part to advance the economic development in the Potomac River valley region in his home state Virginia.⁴⁴¹ During World War II, the Roosevelt administration “endeavor[ed] to locate new facilities away from highly industrialized areas” when selecting sites for new war mobilization factories, steering new aircraft and steel production to states like Utah, Nebraska, and Kansas.⁴⁴²

Public factories, like all factories, require skilled workers. Historically, policymakers have recognized this and often tried to marry workforce programs with public factories. For example, the DPC during World War II built specialized schools and regional training facilities for new entrants into the manufacturing workforce.⁴⁴³ It also built housing to accommodate—and entice—factory workers.⁴⁴⁴ The DPC’s programs were one version, but the Roosevelt Administration also undertook a more expansive workforce program during World War II. In 1940, after Nazi Germany defeated France, the U.S. government recognized it needed more trained workers for defense and industrial production. The Roosevelt administration’s National Defense Advisory Commission created the “Training Within Industry” program, which enlisted 20,000 private industry experts across 22 geographic districts to

⁴³⁹ See *supra* note 104 and accompanying text.

⁴⁴⁰ See Joel Dodge, *Geographic Resilience Under the Defense Production Act*, VAND. POL’Y ACCELERATOR (2025), <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2025/05/28193251/Geographic-Resilience-Under-the-Defense-Production-Act.pdf>.

⁴⁴¹ Smith, *supra* note 366, at 422.

⁴⁴² REGINALD C. MCGRANE, CIVILIAN PRODUCTION ADMIN., SPECIAL STUDY NO. 19, THE FACILITIES AND CONSTRUCTION PROGRAM OF THE WAR PRODUCTION BOARD AND PREDECESSOR AGENCIES, MAY 1940 TO MAY 1945 57-58 (1945).

⁴⁴³ See *supra* Section I.A.2.

⁴⁴⁴ See *supra* Section I.A.2.

promote best industrial practices.⁴⁴⁵ Those experts visited 16,000 individual plants and conducted “train-the-trainer” sessions that reached more than 1.7 million supervisory workers on how best to instruct and manage their frontline employees to increase plant productivity.⁴⁴⁶ The program yielded significant increases in plant productivity.⁴⁴⁷

5. *Sunsetting*

A final consideration is the government’s long-term plan for a public factory. Some public factories have remained permanent government assets, while others have either closed or been privatized after their public need receded. This section evaluates the tradeoffs and considerations involved when policymakers explore retention and privatization.

Retaining public ownership of public factories serves several interests. Long-term public factories can serve as yardsticks for private manufacturers, and assure a baseline of output regardless of private firms’ production decisions. Public factories may also promote public wealth, directing the economic gains from their output into the public fisc instead of to private shareholders. They also promote security and resilience, ensuring the government has a controlled industrial stock available to activate and repurpose as needed in response to a national defense emergency.

If policymakers nevertheless opt to pursue privatization of public factories, two guidelines should govern the process. First, the government must select the *right buyer* for a given factory. As the economist Ha-Joon Chang has written, that means a buyer who has “the ability to improve [the factory’s] long-term productivity.”⁴⁴⁸ It also means a buyer who will not worsen industry concentration: privatization should, at minimum, be a tool to increase competition, rather than expand monopolization.⁴⁴⁹ The disposal of the Defense Plant Corporation’s steel and aluminum plants provides both positive and negative examples: the government’s sale of its Utah steel mill to U.S. Steel exacerbated monopoly power, while its decision to lease its aluminum plants to smaller competitors to Alcoa promoted competition.⁴⁵⁰

⁴⁴⁵ *The Training Within Industry Report, 1940-1945*, WAR MANPOWER COMM’N (Sept. 1945), at x, available at <https://tinyurl.com/37mhkap6>.

⁴⁴⁶ *Id.* at 74-75.

⁴⁴⁷ *Id.* at 91.

⁴⁴⁸ See CHANG, *supra* note 381, at 117.

⁴⁴⁹ Clifford J. Durr, *The Postwar Relationship Between Government and Business*, 33 AM. ECON. REV. 45, 50 (1943) (“The prevention of monopoly should be given great weight in determining the disposition to be made of government owned plants, particularly those producing such basic materials as aluminum, magnesium, rubber, and steel. Competition can be promoted by a judicious selection of operators[.]”).

⁴⁵⁰ See *supra* Section I.A.2.

Second, the government must sell at the *right price*. “Selling at the right price,” Chang writes, “is the duty of the government, as the trustee of the citizens’ assets.”⁴⁵¹ This is a function of scale and timing: the government must avoid selling off too many industrial assets at the same time.⁴⁵² The rush to sell off public factories after World War II is a cautionary tale: the government’s fire sale created a market glut that reduced the prices the government was able to obtain.⁴⁵³ A gradual sale, while continuing to lease out the factories in the meantime, may have yielded more revenue for the government.

C. *The Public-Private Debate*

Public factories inherently raise the debate around the virtues of public enterprises versus privatized firms. According to public enterprise skeptics, public factories may face certain drawbacks and risks: first, that they will have inferior management, leading to higher costs, corruption, and bureaucratic stagnation; and second, that arguments for public factories have no limiting principle, meaning public factories will be over-deployed in areas where they are inappropriate or unnecessary. We address these objections, concluding that these concerns are overblown given evidence from the history of public factories in the United States.

1. *Skepticism of Public Factories*

Public factories face two primary objections: First, skeptics may object that they will be poorly managed. Publicly-owned enterprises, they argue, are prone to inefficiency, wastefulness, corruption, and politicization.⁴⁵⁴ This is because such enterprises are thought to be spared from market competition and enjoy “soft budget constraints” because government will inject subsidies to make them whole.⁴⁵⁵ Moreover, because public enterprises do not have owners with transferable property rights, they suffer from a diminished incentive for sound management: since owners—the public—generally cannot capitalize on effective stewardship, they are less inclined to closely

⁴⁵¹ CHANG, *supra* note 381, at 117.

⁴⁵² *Id.*

⁴⁵³ *See supra* Section I.A.2.

⁴⁵⁴ *See, e.g.*, Maxim Boycko, Andrei Shleifer & Robert W. Vishny, *A Theory of Privatisation*, 106 *ECON. J.* 309 (1996); Ronald A. Cass, *Privatization: Politics, Law, and Theory*, 71 *MARQ. L. REV.* 449, (1988); EMANUEL S. SAVAS, *PRIVATIZATION: THE KEY TO BETTER GOVERNMENT* (1987); Richard Pryke, *The Comparative Performance of Public and Private Enterprise*, 3 *FISCAL STUDIES* 68, 77-80 (1982).

⁴⁵⁵ *See* Janos Kornai, *The Soft Budget Constraint*, 39 *KYKLOS* 3 (1986); *see also* Pryke, *supra* note 454, at 80 (“[P]ublic ownership . . . eliminate[s] the threat of takeover and ultimately of bankruptcy and the need, which all private undertakings have from time to time, to raise money from the market”).

monitor a public factory's performance.⁴⁵⁶ Public enterprises may also be subject to specific legal constraints that reduce their autonomy and lead to more bureaucracy.⁴⁵⁷ Public enterprises may also be diverted to ancillary goals—such as providing generous employment and other public aims—that come at the expense of overall efficiency.⁴⁵⁸ At an extreme, this tendency may turn public enterprises into havens for corruption and bribery.⁴⁵⁹

These features, it's thought, collectively distort the incentives of managers and employees, weakening the ultimate performance of public enterprises. Public enterprise skeptics also point to a number of empirical studies purporting to demonstrate that privatized firms outperform public enterprises.⁴⁶⁰

Second, skeptics may argue that public factories lack a clear limiting principle. If they have the benefits described above, then why not apply them to every kind of good or service? Indeed, some privatization proponents have argued that retaining tightly defined public and private spheres is necessary to minimize the size of government.⁴⁶¹ The creation of public factories may beget more public factories, sliding down a slippery slope that claims more once-private industrial activity for the public realm. Relatedly, once they are created, public factories that become engines of localized employment and growth may prove difficult to close, even after they have outlived their utility.⁴⁶²

⁴⁵⁶ See Louis De Alessi, *The Economics of Property Rights: A Review of the Evidence*, 2 RSCH. L. & ECON. 1, 27-28 (1980); see also Michael J. Trebilcock & Edward M. Iacobucci, *Privatization and Accountability*, 116 HARV. L. REV. 1422, 1426 (2003); Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777, 779-82 (1972).

⁴⁵⁷ See Patrick G. Scott & Santa Falcone, *Comparing Public and Private Organizations: An Exploratory Analysis of Three Frameworks*, 28 AM. REV. PUB. ADMIN. 126, 128-29 (1998).

⁴⁵⁸ Boycko, Shleifer & Vishny, *supra* note 454, at 311-12; see also Andrei Shleifer & Robert W. Vishny, *Politicians and Firms*, 109 Q.J. ECON. 995 (1994); Pryke, *supra* note 454, at 79-80.

⁴⁵⁹ See Shleifer & Vishny, *Politicians and Firms*, *supra* note 458.

⁴⁶⁰ See, e.g., William L. Megginson, Robert C. Nash & Matthias Van Randenborgh, *The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis*, 49 J. FIN. 403 (1994) (finding performance improvements among companies after privatization); Pryke, *supra* note 454 (finding British private enterprises outperformed public enterprise competitors).

⁴⁶¹ See Cass, *supra* note 454, at 451-52; see generally STUART BUTLER, *PRIVATIZING FEDERAL SPENDING: A STRATEGY TO ELIMINATE THE DEFICIT* (1985); E.S. SAVAS, *PRIVATIZING THE PUBLIC SECTOR* (1982).

⁴⁶² Cf. PAUL PIERSON, *DISMANTLING THE WELFARE STATE?: REAGAN, THATCHER AND THE POLITICS OF RETRENCHMENT* 1-2 (1994) (theorizing that retrenchment of government programs is politically challenging because such programs "create[] their own constituencies" by

2. Responses to Skeptics

We address each of these objections to public factories in turn. First, concerning potential mismanagement, we acknowledge that some public factories have faced charges of politically-driven mismanagement. While the Defense Plant Corporation's synthetic rubber factories ultimately succeeded, some critics have argued that the political influence of the oil industry delayed the country's development of a synthetic rubber supply by leading program administrators to emphasize less effective petroleum-based inputs for rubber production over more effective alcohol-based ones.⁴⁶³ Others, however, argue that favoring petroleum was not a political decision, but a rational economic one: petroleum-based production was half the cost of the alcohol-based alternative.⁴⁶⁴

In any case, from our review of the history, what is remarkable is how little evidence there is that suggests public factories are uniquely disposed to mismanagement. As discussed above, public factories can often produce more cheaply and efficiently than private factories.⁴⁶⁵ Public factories have frequently been established to inject competition into concentrated markets,⁴⁶⁶ a posture that—as privatization advocates acknowledge—deflates concerns of relative public-enterprise inefficiency.⁴⁶⁷

“provid[ing] concentrated and direct benefits while imposing diffuse and often indirect costs”). See generally MANCUR OLSON, JR., *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965).

⁴⁶³ See ALEXANDER FIELD, *THE ECONOMIC CONSEQUENCES OF U.S. MOBILIZATION FOR THE SECOND WORLD WAR* 70-143 (2022); see also Robert A. Solo, *The Saga of Synthetic Rubber*, 36 *BULLETIN OF ATOMIC SCI.* 31 (1980).

⁴⁶⁴ Brady Helwig & Ben Noon, *The U.S. Synthetic Rubber Program: An Industrial Policy Triumph during World War II*, *AM. AFFS.* (Spring 2025), <https://americanaffairsjournal.org/2025/02/the-u-s-synthetic-rubber-program-an-industrial-policy-triumph-during-world-war-ii>.

⁴⁶⁵ See *supra* Section II.A.4; see also Michael A. Murray, *Comparing Public and Private Management: An Exploratory Essay*, 35 *PUB. ADMIN. REV.* 364, 369 (1975) (“In government what appears to be inefficiency is sometimes essential to the public purpose of the agency.”).

⁴⁶⁶ See *supra* Section II.A.3.

⁴⁶⁷ See E.S. Savas, *It's Time To Privatize*, 19 *FORDHAM URBAN L.J.* 781, 785 (1992) (“[M]onopoly is generally inferior to competition in providing high-quality, low-cost goods and services, and most government activities are unnecessarily organized and run as monopolies”). Arguments for privatization are generally premised on the existence of competitive markets. See, e.g., William E. Simon, *Foreword*, in *CUTTING BACK CITY HALL* 9 (Robert W. Poole, Jr., ed.) (New York: Universe Books, 1980) (“Private organizations . . . usually do the job better and at less cost [than public enterprises] because they have the discipline of the real-world marketplace.”) (emphasis added); see also John D. Donahue, *The Transformation of*

It is true, as skeptics point out, that public factories theoretically do not need to worry about being run well enough to achieve profitability. It is therefore striking that most public factories in American history have nonetheless been structured for financial sustainability, with some regularly turning profits.⁴⁶⁸ This complicates the skeptics' prediction that a lack of ownership property rights will lead to poor performance and mismanagement at public enterprises. One explanation is that while public factories are not subject to property rights incentives, they are subject to political ones. While skeptics warn that certain political incentives weaken public enterprise performance, other political incentives may actually promote *good* performance, in that elected officials seek to avoid political costs from scandalous poorly-run or wasteful public factories. This may promote stronger oversight and scrutiny to ensure sound management of public factories. Even if theoretically unnecessary or unexpected, in the United States context, profitability and high-quality management may also be practical necessities for public factories to survive and overcome current presumptive ideological hostility. Finally, unlike some other public enterprises, the public *does* hold some measure of transferable property rights such that public factories are assets that can be sold via privatization. The public therefore has an incentive to maximize the market value of public factories through sound management and physical maintenance.

Some economists refute the theoretical arguments against public enterprises.⁴⁶⁹ Economist Ha-Joon Chang found that “there is no clear theoretical case” against publicly-owned enterprises, finding that large complex publicly-owned and privately-owned enterprises alike each tend to struggle with the same kinds of management and agency problems.⁴⁷⁰

Government Work: Causes, Consequences, and Distortions, in GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY 45 (Jody Freeman & Martha Minow eds., 2009) (arguing that the case for privatization is premised on the assumption that “competition eliminates, or at least, narrows, the opportunities to survive without being efficient. [...] Without competition, much of [privatization’s] rationale collapses.”).

⁴⁶⁸ See generally *supra* Section I.

⁴⁶⁹ See Richard R. Nelson, *Assessing Private Enterprise: An Exegesis of Tangled Doctrine*, 12 BELL J. ECON. 93 (1981) (disputing the theoretical claims that private enterprises are inherently less bureaucratic, more responsive to change, and more innovative than public enterprises); see also Filippo Belloc, *Innovation in State-Owned Enterprises: Reconsidering the Conventional Wisdom*, 48 J. ECON. ISSUES 821 (2014) (noting the lack of evidence supporting the theoretical arguments for public enterprises' presumed inefficiency).

⁴⁷⁰ Ha-Joon Chang, *State-Owned Enterprise Reform*, UNITED NATIONS DEPT. FOR ECON. & SOC. AFFS. 7-8 (2007), https://hajoonChange.net/assets/papers/PN_SOERreformNote.pdf; see also William J. Baumol, *On the Implications of the Conference Discussions*, in PUBLIC AND PRIVATE

Moreover, the ability of public enterprises to pursue ancillary goals can be a feature, not a bug, such that they may take risks the private sector won't and invest heavily in innovation.⁴⁷¹

The empirical evidence is mixed, but does not indicate that public factories are inherently less efficient than their private-sector counterparts.⁴⁷² A study of the American subsidiaries of German and Japanese companies that were seized by the U.S. government during World War II found no meaningful difference in firm growth, returns, or equity performance relative to their privately-owned industry peers.⁴⁷³ Economist Nicholas Kaldor determined that “[t]he evidence concerning the relative efficiency of the public sector varies according to country, period and the particular criteria chosen.”⁴⁷⁴

Moreover, history shows that private production is far from immune from inefficiency, abuse, and corruption.⁴⁷⁵ Indeed, private sector misdeeds

ENTERPRISE IN A MIXED ECONOMY: PROCEEDINGS OF A CONFERENCE HELD BY THE INTERNATIONAL ECONOMIC ASSOCIATION IN MEXICO CITY 301 (William J. Baumol ed. 1980) (“One is struck by the many similarities in the problems of large public and private enterprises. [...] [I]n the large firm, whether public or private, the problem of bureaucratisation is a very real one.”).

⁴⁷¹ See William Lazonick & Mariana Mazzucato, *The Risk-Reward Nexus in the Innovation-Inequality Relationship: Who Takes the Risks? Who Gets the Rewards?*, 22 INDUS. CORP. CHANGE 1093, 1102-03 (2013).

⁴⁷² See, e.g., Sergio G. Lazzarini & Aldo Musacchio, *State Ownership Reinvented? Explaining Performance Differences Between State-Owned and Private Firms*, 26 CORP. GOVERNANCE: INT’L REV. 255 (2018) (finding public enterprises do not underperform private firms, except during recessions and economic shocks that elevate social and political objectives); Steve R. Letza, Clive Smallman & Xiuping Sun, *Reframing Privatisation: Deconstructing the Myth of Efficiency*, 37 POL’Y SCI. 159 (2004) (determining that the empirical research does not demonstrate clear efficiency benefits of privatization). Compare Pryke, *supra* note 454 (finding British private enterprises outperformed public enterprise competitors), with Matthew R. Bishop & John A. Kay, *Privatization in the United Kingdom: Lessons from Experience*, 17 WORLD DEV. 643, 652 (1989) (finding that the “growth [of privatized firms in the United Kingdom] has more to do with the nature of the industries concerned than with their ownership[,]” noting that “[t]he privatized firms which have grown rapidly . . . were doing so before privatization.”). See also CHANG, *supra* note 381, at 108-111 (listing “state-owned success stories” in East Asia and Latin America, and observing that “[t]he economic successes of many European economies, such as Austria, Finland, France, Norway and Italy after the Second World War, were achieved with very large [state-owned enterprise] sectors at least until the 1980s.”).

⁴⁷³ Stacy R. Kole & J. Harold Mulherin, *The Government as a Shareholder: A Case from the United States*, 40 J.L. & ECON. 1, 11-17 (1997).

⁴⁷⁴ Nicholas Kaldor, *Public or Private Enterprise – The Issues to be Considered*, in PUBLIC AND PRIVATE ENTERPRISE IN A MIXED ECONOMY: PROCEEDINGS OF A CONFERENCE HELD BY THE INTERNATIONAL ECONOMIC ASSOCIATION IN MEXICO CITY 1, 4 (William J. Baumol ed. 1980).

⁴⁷⁵ See Murray, *supra* note 465, at 369 (arguing that “in terms of efficiency the private sector is not without criticism; business has its share of horror stories,” particularly in the aerospace industry); see also Freeman & Minow, *supra* note 420, at 4 (identifying contractor fraud and waste as common objections to the privatization of government services).

PUBLIC FACTORIES

involving overcharging, shoddy production, and exploitative conduct often served to motivate policymakers to resort to in-house manufacture of goods like weaponry, smokeless powder, asphalt, and printed documents.⁴⁷⁶ Many large private companies deemed economically critical or politically important are subject to their own soft budget constraints by virtue of expectations that the government will provide emergency subsidies or bailouts if they run into financial distress.⁴⁷⁷

Worries about corruption are also relevant but they too seem comparatively weak, when compared to alternative industrial policy strategies. For example, subsidies to corporations create an interest group (the corporations) that will lobby, campaign, and otherwise push to maintain or expand those subsidies.⁴⁷⁸ Subsidies therefore build a political ecosystem in which there are incentives for corruption. Public factories do not create these kinds of incentives, as the government itself owns the factory and sets the terms of production and sales. Public factories may be targeted for capture by firms lobbying for operational contracts and favorable lease terms, or may be subject to corruption in the more traditional sense: government officials stealing from the public. But these risks seem less concerning to us than the interest group problem, given both transparency requirements and the political incentives for politicians to discover corruption in public institutions.

The better argument is that public factories might create a different kind of political distortion: one in which particular localities with public factories so require those factories for employment and community thriving that they refuse to shutter them when they are no longer needed. This objection partly depends on the relevant public. If it is a city, maintaining an obsolete facility is the prerogative of a democratic public—the public might want to spend taxpayer money to keep up the facility to preserve jobs.⁴⁷⁹ If it is a federal public factory, the concerns are greater because the facility may no longer be the optimal use of public funding, to the extent that it requires public subsidy. This, in turn, relates to questions of sunseting that we have already discussed and to the broader question of limiting principles for public factories. However, as a practical matter, it is again unlikely that American political

⁴⁷⁶ See *supra* Section I.

⁴⁷⁷ See CHANG, *supra* note 381, at 107.

⁴⁷⁸ See *supra* Section II.A.4.

⁴⁷⁹ See *supra* Section II.A.2.

culture would tolerate anything close to the type of “payroll-only” public factories that some skeptics have invoked.⁴⁸⁰

Turning to concerns regarding limitless public factories, we don’t purport to offer a limiting principle here as a theoretical matter, nor do we think one is likely to be satisfactory to a broad range of people, since the scope will inevitably turn at least partly on an individual’s normative and ideological preferences. But our historical account in Part I helps provide some context for the scope of public factories and possible limits, and perhaps most importantly, the degree to which skeptics of public factories should be concerned about overreach.

Historically, public factories have mostly been used for certain narrow classes of goods, such as essential life- or health-sustaining goods; critical goods subject to monopoly control; quasi-public utilities; and goods for which the government is the monopsonist buyer. When markets are well-functioning, competitive, and meeting social production needs, public factories have generally not been adopted. Indeed, the history demonstrates that if anything, the United States has *under*-deployed public factories: political and ideological opposition have stood in the way of public factories for steel, medicine, and asphalt, among others.⁴⁸¹ Nonetheless, this history suggests that essential services and sectors with a tendency to monopoly might be particularly well-suited to public factories.

The history also suggests that there is not much risk of unwarranted longevity for public factories in the American context. Many have been privatized, such as the DPC’s factories after World War II, South Dakota’s cement plant, state vaccine plants, and the Virgin Islands rum plant.⁴⁸² Others closed once their economic need had passed, such as Tarboro’s ice plant and the Army’s lumber mill.⁴⁸³ Those that have been retained continue to produce positive economic or social benefits, such as North Dakota’s flour mill, Milwaukee’s Milorganite fertilizer plant, and the military’s GOCO plants.⁴⁸⁴ This history does not lend itself to a conclusion that public factories tend to perpetuate for their own sake.

⁴⁸⁰ See Shleifer & Vishny, *Politicians and Firms*, *supra* note 458, at 995 (“Some plants built by state companies, such as the Italian state-owned steel giant ILVA near Naples, never produce any goods and only put people on the payroll[.]”).

⁴⁸¹ See *supra* Section I; see also *infra* Section III.A.

⁴⁸² See *supra* Section I.

⁴⁸³ See *id.*

⁴⁸⁴ See *id.*

Of course, it may be socially desirable for certain public factories to persist indefinitely, as discussed above.⁴⁸⁵ Nevertheless, in other cases, policymakers can preemptively mitigate the risk of interminable public factories. First, legislation authorizing public factories could include a sunset clause tied to either a temporal end-date or a mission-accomplished metric—for example, a public factory created in response to a public emergency could be sunset upon a formal declaration of the emergency’s cessation, or a public factory created to produce climate-related components could wind down upon the country reaching a predetermined emissions reduction milestone.⁴⁸⁶ Alternatively, public factories could take a page from the process for military base closures. Congress has historically struggled with the decision of how to select unneeded military bases to close in the wake of the Cold War, as closures inflict economic harm on local communities.⁴⁸⁷ Congress therefore created an independent process to identify bases for closure, whereby the executive branch uses the independent Base Realignment and Closure Commission (BRAC) to generate a list of recommended base closures, which Congress must accept or reject *in toto* without modification.⁴⁸⁸ For a time, the BRAC process was widely considered successful, generating substantial savings for the Department of Defense by disposing of excess base capacity.⁴⁸⁹ Policymakers could emulate BRAC by creating an independent commission using neutral criteria to identify public factories that warrant closure or privatization.

III. THE FUTURE OF PUBLIC FACTORIES

Public factories have a rich history in the United States, and have served important public purposes to address the challenges of their time. Reflecting on the success of the Defense Plant Corporation in supporting the physical plant mobilization during World War II, historian Gerald White wrote that the wartime system of public factories created a historical precedent that “can be drawn on again whenever ventures of great public consequence seem too risky to be undertaken by private firms.”⁴⁹⁰ We may be at such a moment

⁴⁸⁵ See *supra* Section II.B.5.

⁴⁸⁶ The Inflation Reduction Act adopted the latter approach by phasing out the clean energy production tax credit upon achieving a specified level of greenhouse gas emissions reduction. See Inflation Reduction Act, Pub. L. No. 157-169, § 13701, 136 Stat. 1818, 1985 (2022).

⁴⁸⁷ CHRISTOPHER T. MANN, CONG. RSCH. SERV., R45705, BASE CLOSURE AND REALIGNMENT (BRAC): BACKGROUND AND INFORMATION FOR CONGRESS 1 (Apr. 25, 2019), <https://crsreports.congress.gov/product/pdf/R/R45705>.

⁴⁸⁸ *Id.* at 2-3.

⁴⁸⁹ *Id.* at 2, 7.

⁴⁹⁰ Gerald T. White, *Defense Plant Corporation*, in GOVERNMENT AGENCIES 86 (Donald R. Whitnah ed. 1983). At the time of White’s writing, the World War II industrial mobilization

again. Policymakers could revisit public factories to confront a number of challenges: resilience against geopolitical supply-chain risks; private-sector accountability for industries overpowering and underperforming the public interest; abundance in the face of market scarcity, bottlenecks, and unaffordability; warp-speed innovation for critical technologies; and more.

In this Part, we explore why public factories might see a revival and how they could be developed. In historical context, the end of the Cold War and collapse of the neoliberal consensus suggests that public factories might find more support among political leaders now than at any time in the last half-century. Public factories also address a number of the downsides and weaknesses with other approaches to addressing shortages: from derisking subsidies and tariffs to abundance and antimonopoly. We then outline some of the legal pathways by which they could be adopted.

A. *The Post-Cold War, Post-Neoliberal Era*

Policymakers exploring the possibility of creating new public factories in the United States today have a rich historical tradition to draw upon. However, that tradition has a conspicuous gap: Public factories were a relatively commonplace policy action before and during the first half of the twentieth century, but rapidly faded from regular use in the latter half. That is no coincidence. Public factories fell out of favor due to Cold War politics and a new aversion to state involvement in the economy. Then, with the “end of history” after the Cold War⁴⁹¹ and the triumph of the neoliberal order,⁴⁹² which in economic policy meant a bipartisan commitment to deregulation, privatization, austerity, and trade liberalization,⁴⁹³ public factories remained out of favor. Now, with Cold War ideological battles more than three decades past and the neoliberal consensus collapsing, public factories might be ripe for revival.

By the close of World War II, many policymakers thought that the war experience had definitively normalized direct government production. In 1946, Secretary of the Interior Harold Ickes argued that victory in World War II “shattered with equal force and effectiveness the wails of a few little men

had recently served as the inspiration for the Energy Security Act of 1980, which sought to rapidly stand up a synthetic fuels industry, including through government-owned projects. See Joel Dodge & Narayan Subramanian, *The Last Time America Tried to Legislate Its Way to Energy Affordability*, HEATMAP (Dec. 23, 2025), <https://heatmap.news/ideas/energy-policy-act-1980>.

⁴⁹¹ See FRANCIS FUKUYAMA, *THE END OF HISTORY AND THE LAST MAN* (1992).

⁴⁹² See GARY GERSTLE, *THE RISE AND FALL OF THE NEOLIBERAL ORDER* (2022).

⁴⁹³ This is the formulation of GANESH SITARAMAN, *THE GREAT DEMOCRACY: HOW TO FIX OUR POLITICS, UNRIG THE ECONOMY, AND UNITE AMERICA* (2019).

that the Government should not engage in business but should rely upon private enterprise and individual initiative to invent and to develop.”⁴⁹⁴ Such triumphalism, however, proved premature. As the Cold War dawned, “many of the most powerful American policymakers acted as if the lessons of World War II were essentially the opposite of the ones that Ickes was suggesting,” historian Mark Wilson wrote.⁴⁹⁵ Rather than looking to extend the successful government-led industrial mobilization of the war years, policymakers looked for opportunities to privatize industry and sideline the government from economic intervention.

As discussed above, even before the war’s end, industry leaders were galvanizing to “win the peace” in favor of free-market economics to stave off a long-term “socialization of enterprise.”⁴⁹⁶ These industry-led efforts received a boost from the Cold War rivalry with the Soviet Union and the McCarthyist Red Scare in the late 1940s and early 1950s. With the nation on high alert to defend American values against the communist threat, New Deal-style economic interventions were now viewed as a “Trojan horse” giving Soviet ideology a foothold in the United States.⁴⁹⁷ During his presidential campaign and White House tenure, President Eisenhower vowed to resist “creeping socialism” in the form of government-owned enterprises, and promised to take the government out of business.⁴⁹⁸

In 1953, Congress created a committee led by former president Herbert Hoover to make recommendations for reorganizing the executive branch (the “Second Hoover Commission”).⁴⁹⁹ In its 1955 report to Congress, the Commission sought to narrow the use of public factories and other government enterprises to temporary exceptional interventions: “The Government creates business-type enterprises in economic emergencies, in the emergencies of war, and for the development of projects which are not

⁴⁹⁴ WILSON, DESTRUCTIVE CREATION at 277.

⁴⁹⁵ *Id.*

⁴⁹⁶ See *supra* note 132 and accompanying text.

⁴⁹⁷ See GARY GERSTLE, THE RISE AND FALL OF THE NEOLIBERAL ORDER 94 (2022) (“The Cold War gave this pursuit of freedom both priority and urgency. [...] Communism was a dire threat to American liberty; the regulated capitalism of the New Deal, now supported by a Republican president (Eisenhower), was the Trojan Horse through which communism would enter the United States and destroy the liberty-loving civilization that generations of Americans had painstakingly built there.”).

⁴⁹⁸ WILSON, DESTRUCTIVE CREATION at 266.

⁴⁹⁹ The first Hoover Commission was appointed in 1947 to make recommendations on reducing Executive Branch waste, fraud, and inefficiency, many of which were codified in the Reorganization Act of 1949. See Ferrel Heady, *The Reorganization Act of 1949*, 9 PUB. ADMIN. REV. 165 (1949).

adapted to private enterprise because of their nature or their magnitude.”⁵⁰⁰ Such enterprises, the Commission claimed, imposed “unfair competition” on private firms and injured the free-market system “upon which our future security and prosperity is based.”⁵⁰¹ The Commission particularly called upon the Department of Defense to “reduc[e] competition with private enterprise” by discontinuing its public factories and other commercial facilities in favor of private procurement.⁵⁰² As Mark Wilson and Jennifer Mittelstadt put it, the Second Hoover Commission “captured the postwar ‘free enterprise’ mood of the Republican Party, and fiscally conservative, anticommunist and free-enterprise Republicans . . . rallied to [its] findings.”⁵⁰³

The Cold War political turn against government-owned enterprises led to the disbandment of many of the government’s remaining public factories. The Department of Defense faced a “constant, ideologically driven pressure” to contract out more of its supply needs “even in the face of evidence that some in-house capacity was desirable.”⁵⁰⁴ Meanwhile, the Eisenhower administration established a policy favoring private procurement such that “the federal government will not start or carry on any commercial activity to provide a service or product for its own use if such product or service can be procured from private enterprise.”⁵⁰⁵

The Eisenhower-era policy “to get government out of competition with private industry” outlived the change in administrations. During the Kennedy administration, Secretary of Defense Robert McNamara cemented the turn toward private procurement. McNamara’s department imposed a policy “based directly on the principle that free competitive enterprise must be fostered by the government” such that the government should not own factories or plants unless it could be “clearly demonstrated” that private industry could not adequately fill the government’s need.⁵⁰⁶ McNamara’s defense privatization reforms were particularly significant in naval shipbuilding: under his leadership, the Navy stopped building new naval

⁵⁰⁰ COMM’N ON ORG. OF THE EXEC. BRANCH OF THE GOVT., *BUSINESS ENTERPRISES: A REPORT TO CONGRESS* xi (May 1955), available at <https://tinyurl.com/mpyk6wzc>.

⁵⁰¹ *Id.* at xii.

⁵⁰² *Id.* at xiii; see also WILSON, *DESTRUCTIVE CREATION* 267.

⁵⁰³ Jennifer Mittelstadt & Mark R. Wilson, *The Politics of US Military Privatizations, 1945-2000*, in *THE MILITARY AND THE MARKET* 17 (Jennifer Mittelstadt & Mark R. Wilson eds. 2022).

⁵⁰⁴ WILSON, *DESTRUCTIVE CREATION* 272; see also Mittelstadt & Wilson, *supra* note 503, at 12 (“During the Cold War, all branches of the armed forces faced new pressure to transfer their public investments and services to private firms and other non-governmental entities.”).

⁵⁰⁵ Bureau of the Budget, Exec. Office of the President, Bulletin No. 55-4 (1955); see also Mittelstadt & Wilson, *supra* note 503, at 17-18,

⁵⁰⁶ Mittelstadt & Wilson, *supra* note 503, at 19.

warships altogether.⁵⁰⁷ McNamara closed the Brooklyn Navy Yard and several GOGO weapons production facilities.⁵⁰⁸ In 1968, he closed the Springfield Armory, opting instead to contract with the private manufacturer Colt to purchase military firearms.⁵⁰⁹

The government continued closures and sell-offs of shipyards and other industrial facilities throughout the Cold War, reflecting a bipartisan commitment to privatization.⁵¹⁰ The American tradition of public factories thus receded during the four-and-a-half decade rivalry with the Soviet Union.

But the end of the Cold War did not mean a revival of public factories, or an immediate realignment in ideas about political economy. If anything, American policymakers doubled down on the “free market” ideology that had arisen in the decades before. Francis Fukuyama’s famous “end of history” argument stood in for the triumph of liberal democracy over alternative ideologies.⁵¹¹ Democrats, perhaps even more so than Republicans, embraced privatization and trade liberalization, with President Bill Clinton signing the North American Free Trade Agreement (NAFTA), negotiating China’s entry into the World Trade Organization, and adopting a more expansive privatization agenda than Ronald Reagan.⁵¹²

Commentators and historians have deemed this period the neoliberal era, and have observed that its governing ideology included privatizing public assets, embracing globalization and trade liberalization even if jobs went overseas, preferencing fiscal austerity to public spending, and deregulating private industry as well.⁵¹³ Given the ideological currents of the era, it is not surprising that public factories went under-discussed as a policy tool. Indeed, during this era, privatization of public factories was common. The TVA fertilizer facilities shut down in 1990; Michigan privatized its vaccine manufacturing in 1996.⁵¹⁴

⁵⁰⁷ *Id.*

⁵⁰⁸ WILSON, *DESTRUCTIVE CREATION* 273.

⁵⁰⁹ *Id.*

⁵¹⁰ Mittelstadt & Wilson, *supra* note 503, at 19, 24; *see also* Margaret Mullins, *The Myths of the Last Supper: The Lessons of History and the Future of Defense Procurement*, VAND. POL’Y ACCELERATOR (Sept. 2025), at 15-18, <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2025/09/11175053/The-Myths-of-the-Last-Supper.pdf>.

⁵¹¹ *See* FUKUYAMA, *supra* note 491.

⁵¹² *See* SITARAMAN, *supra* note 513, at 153.

⁵¹³ MANFRED B. STEGER & RAVI K. ROY, *NEOLIBERALISM: A VERY SHORT INTRODUCTION* (2010); DAVID HARVEY, *A BRIEF HISTORY OF NEOLIBERALISM* (2005); QUINN SLOBODIAN, *GLOBALISTS: THE END OF EMPIRE AND THE BIRTH OF NEOLIBERALISM* (2018); GANESH SITARAMAN, *THE GREAT DEMOCRACY* (2019); GARY GERSTLE, *THE RISE AND FALL OF THE NEOLIBERAL ORDER* (2022).

⁵¹⁴ *See supra* Sections I.B.2 & I.C.1.

By the late 2010s and early 2020s, commentators regularly declared the collapse of the neoliberal consensus.⁵¹⁵ Commentators recognized a political backlash to globalization and trade agreements that had offshored jobs, with President Trump taking a particularly notable stance, bucking the conventional Republican free trade position, and democratic socialist Bernie Sanders pushing Democrat Hillary Clinton to abandon her vocal commitment to free trade as well.⁵¹⁶ COVID-19 then made clear the downsides of fragile supply chains and the need for domestic production of critical materials.⁵¹⁷ Foreign policymakers began to focus on the changing geopolitical landscape, and in particular the challenge of rising Chinese economic power.⁵¹⁸

The result has been a remarkable expansion in the political appetite for formerly disfavored economic policy tools. Both the Trump and Biden administrations imposed tariffs to redirect manufacturing to the United States.⁵¹⁹ The Biden administration re-embraced industrial policy for clean energy and semiconductors.⁵²⁰ The Trump administration has taken government stakes in several private companies, including equity stakes in critical firms, and a “golden share” in a steel company.⁵²¹ After being at the forefront of Cold War privatization, in 2025 the Department of Defense, through its recently-created Office of Strategic Capital, became the largest shareholder in a critical minerals firm.⁵²² Officials in the Trump administration

⁵¹⁵ SITARAMAN, *supra* note 467; Ganesh Sitaraman, *The Collapse of Neoliberalism*, THE NEW REPUBLIC (Dec. 23, 2019), <https://newrepublic.com/article/155970/collapse-neoliberalism>; see also Gary Gerstle, *The Age of Neoliberalism is Ending in America. What Will Replace It?*, GUARDIAN (Jun. 28, 2021), <https://www.theguardian.com/commentisfree/2021/jun/28/age-of-neoliberalism-biden-trump>.

⁵¹⁶ Jonathan Hartley, *The Neo-Populist Economic Consensus*, NAT’L AFFS (Winter 2025), <https://www.nationalaffairs.com/publications/detail/the-neo-populist-economic-consensus>.

⁵¹⁷ Ben Casselman & Ana Swanson, *Supply Chain Hurdles will Outlast Pandemic*, *White House Says*, N.Y. TIMES (Apr. 14, 2022), <https://www.nytimes.com/2022/04/14/business/economy/biden-supply-chain.html>.

⁵¹⁸ KURT M. CAMPBELL, *THE PIVOT: THE FUTURE OF AMERICAN STATECRAFT IN ASIA* (2016).

⁵¹⁹ See Joel Dodge, *Trump’s Industrial Policy: What’s Right and Wrong*, WASH. MONTHLY (Sept. 3, 2025), <https://washingtonmonthly.com/2025/09/03/trump-industrial-policy/>.

⁵²⁰ See Inflation Reduction Act, Pub. L. No. 157-169, 136 Stat. 1818 (2022); CHIPS and Science Act, Pub. L. No. 117-167, 136 Stat. 1366 (2022).

⁵²¹ See Dodge, *Trump’s Industrial Policy*, *supra* note 521. For a general discussion of the justifications for equity stakes see Joel Dodge, *The Cases for Government Equity Stakes*, VAND. POL’Y ACCELERATOR (NOV. 12, 2025), <https://vanderbiltpolicyaccelerator.substack.com/p/the-cases-for-government-equity-stakes>.

⁵²² Release, Office of Strategic Capital Announces First Loan Through DoD Agreement With MP Materials to Secure Critical Materials Supply Chain, U.S. DEP’T OF DEFENSE (Aug. 10, 2025),

have even floated the idea of using funding secured through trade deals with foreign governments to create U.S. government-owned, contractor-operated mines and semiconductor facilities.⁵²³

At a time when the ideological consensus is breaking down, public factories might be ready for a revival. Indeed, there are already some signs that such a revival is taking place. The Defense Department has opened new public factories since 2020 to address shortages in munitions from the Ukraine-Russia conflict and to support Defense software needs.⁵²⁴ California has adopted CalRx, an initiative to build a public factory to develop medicines.⁵²⁵ Commentators have also started proposing public factories from public shipyards⁵²⁶ to public semiconductor plants⁵²⁷ to public production of clean energy technologies like electric vehicles and lithium batteries.⁵²⁸

B. *De-Risking, Tariffs, and the New Industrial Policy*

The recent resurgence of American industrial policy has led scholars to begin to evaluate the merits of the existing tools in its toolkit. Perhaps the two most common toolsets are subsidies—direct payments, loan guarantees, tax credits, and other fiscal measures—and tariffs. Both of these sets of tools have re-emerged in recent years as part of a conscious strategy to reinvigorate domestic manufacturing. Yet both approaches have some drawbacks and disadvantages when compared to public factories.

<https://www.defense.gov/News/Releases/Release/Article/4270722/office-of-strategic-capital-announces-first-loan-through-dod-agreement-with-mp/>.

⁵²³ Gavin Bade & Corre Driebusch et al., *Trump's Quest for His Own Sovereign Fund Gets \$550 Billion Boost From Japan*, WALL ST. J. (Jul. 25, 2025), https://www.wsj.com/politics/policy/sovereign-wealth-fund-japan-trade-deal-b0fad1a?st=72hXCp&reflink=article_copyURL_share.

⁵²⁴ See U.S. Army Public Affairs, *Army breaks ground on state-of-the-art 6.8 mm ammunition production facility*, U.S. ARMY (Feb. 6, 2025), https://www.army.mil/article/282896/army_breaks_ground_on_state_of_the_art_6_8_mm_a_mmunition_production_facility.

⁵²⁵ See *supra* Section I.C.1. For a proposal for public manufacture of all classes of pharmaceutical drugs, see Dana Brown, *Public Pharmaceuticals*, THE NEXT SYSTEM PROJ. (Oct. 2, 2020), <https://thenextsystem.org/learn/stories/public-pharmaceuticals>.

⁵²⁶ Mary Bridges, *Liberty Yards: The Case for Public Shipbuilding*, VAND. POL'Y ACCELERATOR (Jan. 2026), <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2025/12/19150648/Liberty-Yards.pdf>.

⁵²⁷ Susannah Glickman, *Semi-Politics*, PHENOMENAL WORLD (Jun. 24, 2023), <https://www.phenomenalworld.org/analysis/semi-politics/>.

⁵²⁸ See Samuel Appel & Jacob Whiton, *Organize, Industrialize, Decarbonize! A Pro-Worker, Green Industrial Policy for California*, UNITED AUTO WORKERS REGION 6 (Aug. 2025), <https://tinyurl.com/4x3k8ray> (including “[p]ublic ownership and production” in green industrial policy toolkit).

For the Biden Administration, the new “industrial strategy” largely focused on ways to subsidize private corporations to invest more in specific sectors or goods. The Inflation Reduction Act (IRA), for example, provided \$370 billion to subsidize green industrial policy.⁵²⁹ The CHIPS and Science Act (CHIPS) authorized spending \$39 billion on semiconductor industrial policy.⁵³⁰

Scholars and commentators have referred to this approach as “derisking” because the subsidies (through whatever specific legal mechanism) reduce the risk for private capital holders to invest in the sector.⁵³¹ Simply speaking, because they need to put less capital into the investment, they do not risk losing as much as if they had to fund the entire investment.⁵³² De-risking-type industrial policy in the United States traces back to the 1800s when the government offered land and financial inducements to encourage private railroad development.⁵³³ In the 1960s, economist Paul Samuelson described the Kennedy administration’s investment tax credit as “a bribe to capital formation.”⁵³⁴

More recently, economist Daniela Gabor has criticized the “carrots without sticks” industrial policy approach of condition-less subsidies under the IRA that “outsources the pace of decarbonisation to private capital.”⁵³⁵ Gabor sees an emerging “derisking state [that] enlists private capital into achieving public policy priorities by tinkering with risk/returns on private investments[.]”⁵³⁶ Such policies aimed to increase the “production of investibility,” she wrote, by “forg[ing] a state-capital relationship where capital dominates.”⁵³⁷ Others criticize derisking as an “atomizing strategy” that compromises away any ability for the state to conduct holistic and coordinated industrial policy that

⁵²⁹ Estimated Budgetary Effects of H.R. 5376, the Inflation Reduction Act of 2022, CONG. BUDGET OFFICE (Aug. 3, 2022), <https://www.cbo.gov/publication/58366>.

⁵³⁰ CHIPS and Science Act, Pub. L. No. 117–167 § 102, 136 Stat. 1366, 1372 (2022).

⁵³¹ See DANIELA GABOR, THE (EUROPEAN) DERISKING STATE (2023), <https://doi.org/10.31235/osf.io/hpbj2>.

⁵³² See *id.*

⁵³³ Shelley Welton & Conor Harrison, *Lessons in Climate Derisking: The United States’ Failed Nuclear Renaissance*, 173 U. PA. L. REV. 705, 708 (2025) (citing MORGAN RICKS, GANESH SITARAMAN, SHELLEY WELTON & LEV MENAND, NETWORKS, PLATFORMS & UTILITIES: LAW & POLICY 478-80 (2022)).

⁵³⁴ See Tim Barker, *From Keynes to the Keynesians: Socialised investment and the spectre of full employment*, VERSO (Dec. 4, 2020), <https://www.versobooks.com/blogs/news/4936-from-keynes-to-the-keynesians-socialised-investment-and-the-spectre-of-full-employment?srsId=AfmBOoqFvcl2vjeOA6xHFRdYRLzSZcvQVC1bpocoJ11I1H88PuFg0Jrw>.

⁵³⁵ GABOR, *supra* note 531, at 23.

⁵³⁶ *Id.* at 1.

⁵³⁷ *Id.*

is unlikely to yield impressive results without corresponding procedural reforms and state capacity investments.⁵³⁸

Less problematic than derisking, for Gabor, is the approach of the CHIPS Act, which she categorizes as a “state directed industrial upgrade.”⁵³⁹ Gabor distinguishes CHIPS in that its implementation included prescriptive conditions attached to semiconductor grants that “discipline[d] private capital.”⁵⁴⁰ This approach has also been attacked, however, most notably by Ezra Klein and others in the abundance movement.⁵⁴¹ They argue that placing conditions on subsidies—from labor requirements, to social conditions, to prevention of stock-buybacks—could both slow the project down and also lead to less money going to the underlying investment.⁵⁴²

Some scholars, however, have argued that “derisking and discipline are not so neatly opposed.”⁵⁴³ Jeff Gordon contends that derisking policies like the IRA can “mold the landscape of profitability into a disciplinary force itself” by offering “statutory contracts” to direct firm behavior toward public ends.⁵⁴⁴ By “choosing which activities to make more and less profitable” through targeted subsidies, Gordon concludes, “policymakers sensibly turn to the struggle for profit as a potential source of leverage.”⁵⁴⁵

⁵³⁸ Welton & Harrison, *supra* note 533, at 783-87.

⁵³⁹ *Id.*

⁵⁴⁰ *Id.* at 19-20 (select CHIPS Act funding conditions included “extensive due diligence before approval, restrictions on stock buybacks, profit sharing (on a case-by case basis), preference for projects with backwards and forwards spillovers, reporting requirements under close monitoring, limits on investments in, or partnerships with companies of, foreign countries of concern (read China and Russia), and critically, construction and operational milestones”); see also Joel Dodge, *In Defense of Everything-Bagel Liberalism*, WASH. MONTHLY (Apr. 24, 2025), <https://washingtonmonthly.com/2025/04/24/in-defense-of-everything-bagel-liberalism/>.

⁵⁴¹ Ezra Klein, *The Problem With Everything-Bagel Liberalism*, N.Y. TIMES (Apr. 2, 2023), <https://www.nytimes.com/2023/04/02/opinion/democrats-liberalism.html>.

⁵⁴² *Id.*

⁵⁴³ Jeff Gordon, *Can Subsidies Discipline Capital?*, L. & POL. ECON. PROJ. (May 13, 2024), <https://lpeproject.org/blog/subsidies-discipline-derisking-capital/>; see also Skanda Amarnath & Melanie Brusseler et al., *Varieties of Derisking*, PHENOMENAL WORLD (Jun. 17, 2023), <https://www.phenomenalworld.org/interviews/derisking/> (Chirag Lala of the Center for Public Enterprise arguing that “the distinction between discipline and carrots is blurred”); Welton & Harrison, *supra* note 533, at 719 (“Every means of infrastructure development . . . can, in some sense, be thought of as ‘derisking’ in its objectives”).

⁵⁴⁴ Gordon, *supra* note 543.

⁵⁴⁵ *Id.*

The Trump Administration, in contrast, has emphasized tariffs as a way to rebuild domestic manufacturing.⁵⁴⁶ Since retaking office, President Trump has imposed broad and evolving tariffs on goods imported from global trading partners.⁵⁴⁷ Proponents of tariffs, such as Oren Cass of American Compass, have justified them as a means to address the externalities from the political, economic, and societal harms caused by offshoring industry.⁵⁴⁸ Cass has argued that tariffs are a tool to “reorder the international economic system[] ... to address the system’s imbalances, which have led to deindustrialization and annual trillion-dollar trade deficits for the United States.”⁵⁴⁹ Critics, however, have argued that tariffs counter-productively burden domestic manufacturing by forcing producers to pay more for inputs and risking lost foreign market access for exports.⁵⁵⁰ Others argue that strategic and predictable targeted tariffs can be effective tools for reindustrialization, but the current administration’s “tariff roller coaster” of ever-shifting rates and deals has prevented businesses from making long-term investment and production decisions.⁵⁵¹

Both derisking subsidies and tariffs suffer from at least five drawbacks. The first is a technical administration problem: Setting the right level of subsidy or tariff is difficult. Set too low a subsidy, and you do not incentivize capital enough to build; set too high a subsidy, and you are over-subsidizing wealthy capital holders with funds that could have been helpfully directed elsewhere.⁵⁵² Set tariffs too high, and you may reduce innovation by domestic firms who don’t face international competition; set tariffs too low, and the cost

⁵⁴⁶ See Sarah Habeshian, *Tech jobs, robots are Lutnick's vision for America's "manufacturing renaissance"*, AXIOS (Apr. 3, 2025), <https://www.axios.com/2025/04/03/tech-jobs-robots-lutnick-manufacturing-renaissance>.

⁵⁴⁷ See Talya Minsberg, *A Timeline of Trump's On-Again, Off-Again Tariffs*, N.Y. TIMES (Oct. 14, 2025), <https://www.nytimes.com/2025/03/13/business/economy/trump-tariff-timeline.html>.

⁵⁴⁸ Oren Cass, *Trump's Most Misunderstood Policy Proposal*, ATLANTIC (Sept. 25, 2024), <https://www.theatlantic.com/politics/archive/2024/09/economic-arguments-tariffs-trump/680015/>.

⁵⁴⁹ Oren Cass, *Stop Freaking Out. Trump's Tariffs Can Still Work.*, N.Y. TIMES (Apr. 8, 2025), <https://www.nytimes.com/2025/04/08/opinion/trump-tariffs-success-failure.html>.

⁵⁵⁰ Kimberly Clausing, *What Trump Doesn't Get About Tariffs*, U.S. NEWS & WORLD REP. (Apr. 8, 2025), <https://www.usnews.com/opinion/articles/2025-04-08/trump-tariffs-china-trade-war>.

⁵⁵¹ Lori Wallach, *The Trade Policy We Need*, AM. PROSPECT (Mar. 28, 2025), <https://prospect.org/2025/03/28/2025-03-28-trade-policy-we-need/>.

⁵⁵² See Guy Meunier & Jean-Pierre Ponsard, *Green Industrial Policy, Information Asymmetry, and Repayable Advance*, 26 J. PUB. ECON. THEORY 1 (2023).

differential is not significant enough to incent domestic production.⁵⁵³ A second problem is that a portion of the firm's subsidy could be capitalized into profits.⁵⁵⁴ That is, a firm getting a \$10 subsidy might put \$2 to profits and \$8 toward reducing the cost of the activity. The result is that a portion of public dollars goes to private benefit.

The third and fourth issues are broader. Both subsidies and tariffs are indirect policy interventions. Subsidies do not guarantee that there are more semiconductors or solar panels built; they simply lower the price. It is possible that even with subsidy programs, there will not be sufficient building of the desired goods. Tariffs also do not guarantee domestic manufacturing; they simply raise the price. It is possible that even with tariffs, there will not be sufficient—or any—new construction, merely higher prices for consumers of imported goods. Tariffs also suffer from a further challenge. If it takes time to bring new manufacturing capacity online (e.g. building a factory) and if there are no additional efforts to expand domestic manufacturing, a tariff that takes effect raises prices for a long period of time before the factory is built.⁵⁵⁵ This problem of indirectness raises a bigger challenge for derisking and tariff programs: both policy regimes are, in some ways, passive. Yes, they involve policy choices by government and an attempt to shape the market. But they are limited to shaping the market. There is no guarantee the country gets the production it needs.

Finally, both subsidies and tariffs raise the problems of capture and corruption.⁵⁵⁶ At the time of creation, corporations and capital-holders who

⁵⁵³ See Ufuk Akcigit, Sina T. Ates & Giammario Impullitti, *Innovation and Trade Policy in a Globalized World*, NBER Working Paper No. 24543, (Nat'l Bureau of Econ. Rsch., Apr. 2018), <https://www.nber.org/papers/w24543>; see also Robinson Meyer, *China's Electric Vehicles Are Going to Hit Detroit Like a Wrecking Ball*, N.Y. TIMES (Feb. 27, 2024), <https://www.nytimes.com/2024/02/27/opinion/gm-ford-electric-vehicles.html> (discussing the need to balance protectionism with exposing domestic firms to international competition).

⁵⁵⁴ See Lenore Palladino, *The Need for Corporate Guardrails in U.S. Industrial Policy*, 47 SEATTLE U. L. REV. 581 (2024).

⁵⁵⁵ See Ben Casselman, *Trump Says a Recession Might Be Worth the Cost. Economists Disagree.*, N.Y. TIMES (Mar. 18, 2025), <https://www.nytimes.com/2025/03/18/business/economy/trump-recession-tariffs-inflation.html> (evaluating “short-term pain for long-term gain” theory of tariffs).

⁵⁵⁶ See Veljko Fotak & Hye Seung (Grace) Lee et al., *The Political Economy of Tariff Exemption Grants*, 60 J. FIN. & QUANT. ANALYSIS 2678 (2025) (finding that companies that made political contributions to Republicans were more likely to be granted exemptions from tariffs under the Trump administration); see also Joel Dodge, *The Perils of Privatized Industrial Policy*, VAND. POL'Y ACCELERATOR (Oct. 23, 2025), <https://vanderbiltpolicyaccelerator.substack.com/p/the-perils-of-privatized-industrial-policy> (documenting how the perceived availability of industrial policy subsidies “could . . . be a recipe for corporate rent-seeking”).

might benefit from subsidies or tariffs will push for the creation of such policies because they will gain a financial windfall from taxpayers or legal protection from foreign competition. These interested parties might lobby government to get these private benefits—even in cases in which such subsidies or tariffs are not in the public interest. At worst, such lobbying activities risk turning into outright corruption. Once these subsidies or tariffs are adopted, capture and corruption remain a problem—now as these actors seek to preserve the subsidies or protectionist policies. Indeed, subsidies have often been very hard to dislodge once adopted.⁵⁵⁷

Public factories do not suffer from these problems. From a financing perspective, when the government entity owns and operates the factory (GOGO), 100 percent of the expenditure can go to production because the government is not a profit-seeking entity. In other words, no public funds go to private profits and there's no issue of calculating the ideal subsidy or tariff rate to incent production. Even if the public factory is contractor operated (GOCO), the government can know all the input costs and have full visibility into the production process, which means that it will be at comparatively lower risk of getting the contract wrong in terms of operating costs, than if it is creating a general subsidy program with limited visibility into costs within the industry.

Public factories are also an active, direct way of increasing production. If there is a desire to build more of a good, the easiest way is to build it directly. In some instances, they may be a more effective derisking tool than subsidies, since GOCO factories can offload all of a project's capital investment off of the company.⁵⁵⁸ This does lead to some risk of capture, whereby private companies could lobby for GOCO factories in order to shift their capital expenses on to the public balance sheet. Companies seeking to operate GOCOs could also capture rents by negotiating overly generous lease terms from the government.⁵⁵⁹ Government-ownership *and* -operation of public factories, on the other hand, prevents capture and corruption from private companies: there is no financially-interested corporation or capital-holder to lobby for the public factory. (There might be elected representatives, but that's usually called democracy, not capture.)

⁵⁵⁷ See, e.g., Lisa Friedman, *The Zombies of the U.S. Tax Code: Why Fossil Fuels Subsidies Seem Impossible to Kill*, N.Y. TIMES (Mar. 15, 2024), <https://www.nytimes.com/2024/03/15/climate/tax-breaks-oil-gas-us.html>.

⁵⁵⁸ See *supra* Section I.A.2 (discussing the advantages for companies of leasing DPC public factories rather than relying on alternative subsidies).

⁵⁵⁹ See *supra* Section II.B.1.

This is not to say that derisking subsidies or tariffs should never be used, or that public factories are perfect and should always be used. In certain contexts, subsidies to private producers may be a superior policy option, such as when the private sector already has significant spare capacity to scale up production within existing industrial plants,⁵⁶⁰ or when state financial support can reduce production cost differentials between the United States and foreign jurisdictions.⁵⁶¹ Moreover, public factories, as we have noted above, also have their own tradeoffs,⁵⁶² and they could also be adopted in conjunction with either subsidies or tariffs. But policymakers and scholars should recognize that they have some benefits that have been overlooked, particularly as compared to these more common tools.

C. *The Abundance-Antimonopoly Debate*

One of the more notable policy debates of the last few years has been between the “abundance” and “antimonopoly” camps. Advocates for abundance have honed in on America’s lost capacity to build things quickly—from housing, to factories, to transportation infrastructure, to new energy generation and transmission lines.⁵⁶³ Their diagnosis is that legal procedures and conditions and citizen voice through local governance create too many veto points and delays in the system, allowing a “not in my backyard” anti-growth group to leverage legal processes to block building.⁵⁶⁴ In addition, the processes and conditions on building themselves have slowed and stifled growth.⁵⁶⁵ Their prescription is to deregulate and deproceduralize: reduce or eliminate zoning requirements that restrict how much housing may be built

⁵⁶⁰ For example, Title III of the Defense Production Act allows the president to offer financial inducements to private firms to increase production. *See* 50 U.S.C. § 4531 *et seq.*; *see also* Joel Dodge, *The Anti-Inflation Defense Production Act*, VAND. POL’Y ACCELERATOR (2025), <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2025/04/21155723/The-Anti-Inflation-Defense-Production-Act.pdf>, at 22.

⁵⁶¹ For example, one of the aims of the CHIPS and Science Act was to provide subsidies to reduce the cost gap of manufacturing semiconductors in the United States. *See* Stephen Ezell, *How the Commerce Department Can Implement CHIPS for Maximum Impact*, INFO. TECH. & INNOVIATION FOUND. (Feb. 17, 2023), <https://itif.org/publications/2023/02/17/how-the-commerce-department-can-implement-chips-for-maximum-impact/>.

⁵⁶² *See supra* Section II.C.

⁵⁶³ The canonical statement is EZRA KLEIN & DEREK THOMPSON, *ABUNDANCE* (2025). *See also* MARC J. DUNKELMAN, *WHY NOTHING WORKS: WHO KILLED PROGRESS—AND HOW TO BRING IT BACK* (2025); JEN PAHLKA, *RECODING AMERICA: WHY GOVERNMENT IS FAILING IN THE DIGITAL AGE AND HOW WE CAN DO BETTER* (2023).

⁵⁶⁴ *See* Ezra Klein, *Government Is Flailing, in Part Because Liberals Hobbled It*, N.Y. TIMES (Mar. 13, 2022), <https://www.nytimes.com/2022/03/13/opinion/berkeley-enrollment-climate-crisis.html>.

⁵⁶⁵ Ezra Klein, *The Problem With Everything-Bagel Liberalism*, N.Y. TIMES (Apr. 2, 2023), <https://www.nytimes.com/2023/04/02/opinion/democrats-liberalism.html>.

and environmental review rules that assess the impacts of development projects; streamline procedures for building and allocating funding; and reduce the conditions placed on developers and others when building.⁵⁶⁶

The antimonopolists accept that sometimes process and regulations are an issue, but they do not believe they are the only problem or that deregulation and deproceduralization are the only solutions.⁵⁶⁷ Rather, they focus on other problems: concentrated markets,⁵⁶⁸ anticompetitive behaviors,⁵⁶⁹ and financialization of the economy distorting investment incentives.⁵⁷⁰ Their solutions are to break up monopolies and oligopolies that are hoarding supply, prosecute and regulate anticompetitive behaviors like price fixing, and structurally shift incentives for finance through regulation and tax changes toward production.⁵⁷¹

These two camps have engaged in ferocious debates over their respective policies, in the process illuminating the drawbacks of each position. The abundance diagnosis suffers from the challenge that there are, in fact, many other problems that hold up building.⁵⁷² Some of their solutions are also problematically passive: a deregulatory and de-procedural approach that limits the government's role to getting out of the way simply assumes that the market will automatically lead to more production, when it might not, or might take a long time to do so and then only do so in an indirect way.⁵⁷³ They also do not focus on the many other policy options that might be as or more

⁵⁶⁶ See generally KLEIN & THOMPSON, *supra* note 563.

⁵⁶⁷ See, e.g., Christopher Serkin & Ganesh Sitaraman, *Post-Neoliberal Housing Policy*, U. PA. L. REV. (forthcoming 2026).

⁵⁶⁸ See, e.g., Laurel Kilgour, *Capital Crunch: How the Fall of Local Finance and the Rise of Shareholder Primacy Warped Single-Family Homebuilding in America—And What to Do About It*, AM. ECON. LIBERTIES PROJ. (Nov. 2025), <https://www.economicliberties.us/wp-content/uploads/2025/11/20251014-aelp-capitalcrunch-final.pdf>.

⁵⁶⁹ Heather Vogell, *Rent Going Up? One Company's Algorithm Could Be Why.*, PROPUBLICA (Oct. 15, 2022), <https://www.propublica.org/article/yieldstar-rent-increase-realpage-rent>.

⁵⁷⁰ Joe Weisenthal & Tracy Alloway, *I Want to Believe in Abundance*, BLOOMBERG (Mar. 24, 2025), <https://www.bloomberg.com/news/newsletters/2025-03-24/i-want-to-believe-in-abundance> (“[A] stock market that continues to go up is part of the entire US economic model. . . . So any impulse to abundantly build out less profitable lines of business undoubtedly strikes at the heart of how American capitalism works.”).

⁵⁷¹ See, e.g., Kilgour, *supra* note 568.

⁵⁷² See Joel Dodge, *In Defense of Everything-Bagel Liberalism*, WASH. MONTHLY (Apr. 24, 2025), <https://washingtonmonthly.com/2025/04/24/in-defense-of-everything-bagel-liberalism/>.

⁵⁷³ See Brian Shearer, *To Create Abundant Housing, Ignore the YIMBY Playbook*, WASH. MONTHLY (Aug. 14, 2025), <https://washingtonmonthly.com/2025/08/14/cities-can-have-abundant-housing-if-theyre-willing-to-work-for-it/>.

effective.⁵⁷⁴ The antimonopoly approach also has some drawbacks: it too is indirect, assuming more building and production will happen if antitrust and fair competition laws are enforced and if financial incentives are reshaped. In any case, these reforms would still take time to see results on the ground.

Public factories may be a place where both sides can converge. Abundance advocates have expressed agnosticism toward the means of achieving expanded supply, including through public production.⁵⁷⁵ And antimonopolists have advocated for public ownership and investment to check corporate power.⁵⁷⁶ What's more, public factories offer something important to both camps. For the abundance camp, public factories are perhaps the most direct way to increase supply. Instead of waiting on the market to—possibly—deliver more goods over a long period of time, a public factory could produce more immediately. Public factories may therefore be a more effective route to abundance than deregulated private markets. For the antimonopolists, public factories offer multiple benefits. First, they are not private corporations, so there is not as serious a risk of the downsides of monopolies—in the form of higher prices, lower output, or capturing government. Second, they can introduce competition into the marketplace: by operating in the market, the public factory can push private companies, particularly in concentrated markets, to offer better products and lower prices.⁵⁷⁷

Public factories may, therefore, be a way forward through the abundance-antimonopoly debate. Effective public factories must overcome barriers imposed by both sclerosis and concentrated power. Lessons from both abundance and antimonopoly may thereby emerge in the design of public

⁵⁷⁴ *See id.*

⁵⁷⁵ *See* KLEIN & THOMPSON, *supra* note 563 at 111 (U.S. cities are “experimenting with using public projects to expand their housing stock. But social housing will rise or fail for the same reasons that all building projects rise or fail. It doesn’t matter whether the worker hammering in nails is a public employee or a private contractor.”); Ezra Klein, *The Problems Democrats Don’t Like to See*, N.Y. TIMES (Jun. 8, 2025), <https://www.nytimes.com/2025/06/08/opinion/abundance-democrats-future.html> (“I’m all for fighting concentrated corporate power ... [but] [a] left that wants to build public housing and decarbonize the economy will need a government capable of building fast, well and cheaply”); *see also* Steven Teles, *Varieties of Abundance*, NISKANEN CTR. (Aug. 28, 2025), <https://www.niskanencenter.org/abundance-varieties/> (characterizing New York City Mayor Zohran Mamdani’s agenda to “accomplish a lot in and through the public sector” as a type of “Red Plenty” abundance).

⁵⁷⁶ Sandeep Vaheesan, *The Real Path to Abundance*, BOSTON REV. (May 22, 2025), <https://www.bostonreview.net/articles/the-real-path-to-abundance/>.

⁵⁷⁷ SITARAMAN & ALSTOTT, *supra* note 130, at 39 (explaining how public options can promote competition).

factories: From abundance, public factories may require expediting legal processes to ensure that an enterprise socially important enough to warrant the government's policymaking capital gets built with speed and priority.⁵⁷⁸ And from antimonopoly, public factories ought to, wherever possible, increase competition instead of deepening monopoly power, such as by only leasing GOCO facilities to non-dominant firms.

D. *The Legal Pathways for Public Factories*

Finally, it is worth observing that public factories are legally permissible and possible. At the federal level, most obviously, Congress could enact new legislation authorizing the creation of public factories. Indeed, there have already been a number of proposals along these lines. In 2018, Senator Elizabeth Warren and Representative Jan Schakowsky introduced the federal Affordable Drug Manufacturing Act, which would create an Office of Drug Manufacturing in the Department of Health and Human Services to manufacture select generic drugs to sell at affordable prices to patients.⁵⁷⁹ In 2025, Senators Ted Cruz, John Cornyn, Tom Cotton, and John Boozman introduced the SkyFoundry Act, which would create a government-owned and -operated small drone production facility.⁵⁸⁰

Perhaps more interestingly, some public factories at the federal level might not require new legislation. For instance, the Department of Defense has broad authority to “have supplies needed for the Department of the Army made in factories or arsenals owned by the United States.”⁵⁸¹ It could also conceivably establish public factories under statutory authority to “maintain a core logistics capability that is Government-owned and Government-operated[.]”⁵⁸² The Army recently began work on a new public factory for munitions.⁵⁸³ In 2023, the Marine Corps also created a public factory for software development capability.⁵⁸⁴

⁵⁷⁸ Cf. Building Chips in America Act of 2023, Pub. L. No. 118-105, 138 Stat. 1587 (2023) (streamlining environmental and historical preservation review processes for semiconductor production projects).

⁵⁷⁹ Affordable Drug Manufacturing Act of 2018, S. 3775, 115th Cong. (2018).

⁵⁸⁰ SkyFoundry Act of 2025, S. 2506, 119th Cong. (2025).

⁵⁸¹ 10 U.S.C. § 7532.

⁵⁸² 10 U.S.C. § 2464.

⁵⁸³ See U.S. Army Public Affairs, *Army breaks ground on state-of-the-art 6.8 mm ammunition production facility*, U.S. ARMY (Feb. 6, 2025), <https://www.army.mil/article/282896/army-breaks-ground-on-state-of-the-art-6-8-mm-a-munition-production-facility>.

⁵⁸⁴ Maj. Gregory Carroll, *Marine Corps Launches Software Factory*, U.S. MARINE CORPS (Mar. 10, 2023), <https://www.marines.mil/News/News-Display/Article/3325399/marine-corps-launches-software-factory/>.

PUBLIC FACTORIES

More creatively, Title III of the Defense Production Act of 1950 (DPA) could provide authority for public factories. Section 4533 states in part: “To create, maintain, protect, expand, or restore domestic industrial base capabilities essential for the national defense, the President may make provision— . . . for the development of production capabilities[.]”⁵⁸⁵ While other sections of the DPA authorize financial instruments (like loans, guarantees, and purchase commitments) for private producers,⁵⁸⁶ Section 4533 authorizes “other presidential action.”⁵⁸⁷ Such action includes providing for “the development of production capabilities”—language that implies a different and more expansive type of authority than that contained elsewhere in the DPA.⁵⁸⁸ The president could, for example, determine that new public factories would “develop[] ... production capabilities” for the domestic industrial base. Moreover, another sub-section explicitly references public factories, authorizing the president “to procure and install additional equipment, facilities, processes or improvements to *plants, factories, and other industrial facilities owned by the Federal Government*”—a provision that plainly allows the president to expand or improve existing public factories.⁵⁸⁹ Under the DPA, new or improved public factories could engage in production related to the “national defense”—a broadly defined term under the law that includes resources related to the military, energy production, critical infrastructure, stockpiling, and more.⁵⁹⁰ Therefore, the president could potentially use the DPA for a broad range of public factories.⁵⁹¹

States and localities could also, as they have done in the past, establish their own public factories.⁵⁹² These factories could be established to serve individual state policy priorities and needs, to build public wealth, to capitalize on a market opportunity, or to preserve important industry. Such factories could foremost serve in-state demand, but also generate revenue by selling their products across state lines. Other states may build new public factories

⁵⁸⁵ 50 U.S.C. § 4533(a)(1)(C).

⁵⁸⁶ See 50 U.S.C. §§ 4532(a), 4533(a)(1)(A).

⁵⁸⁷ 50 U.S.C. § 4533.

⁵⁸⁸ See *Duncan v. Walker*, 533 U.S. 167, 174 (2001) (courts interpret acts of Congress “to give effect, if possible, to every clause and word of a statute”) (internal quotation marks omitted).

⁵⁸⁹ 50 U.S.C. § 4533(e)(1)(A) (emphasis added).

⁵⁹⁰ 50 U.S.C. § 4552(14).

⁵⁹¹ The president’s DPA authority is constrained by procedural requirements (which can be waived on national defense grounds) and fiscal limitations capping the DPA Fund at \$750 million plus any additional appropriations from Congress. See 50 U.S.C. §§ 4533(a), 4534(e).

⁵⁹² State and local governments seeking to establish public factories may of course need to secure legislative or referendum approval before seeking debt financing through the municipal bond market.

in order to lease them to private manufacturers for economic development purposes, as Mississippi and Alabama did.⁵⁹³ Conversely, states and localities could also “create” public factories by purchasing private factories facing closure in order to prevent job loss and the exodus of important regional industry, as some municipalities and regional authorities explored in the past.⁵⁹⁴

CONCLUSION

The revival of American industrial policy to date has leaned on a mix of subsidies and tariffs meant to coax private firms to align their production and location decisions with U.S. policy priorities. Other policymakers and commentators have focused on deregulation and antimonopoly policy to unlock domestic supply and address bottlenecks. Those tools are worthwhile in many contexts. But they have not historically been the exclusive modes of American industrial policy. Direct government construction, ownership, and—in some cases—operation of production facilities have long been additional means of securing and expanding domestic supply of critical goods.

Throughout American history, public factories—including defense plants, vaccine production facilities, flour mills, and more—have been built and managed across all levels of government, with great success. These public factories have served a broad set of public purposes, including checking corporate power, expanding abundance and affordability, promoting public health, and securing economic sovereignty. They have made particular policy sense in instances where the perceived risk, cost, and long-term uncertainty surrounding building and maintaining manufacturing sites have held back private production of critical goods. Under those circumstances, government actors unencumbered by paramount profitability demands can fill the gap to directly build factories needed to increase production.

⁵⁹³ See *supra* Section I.C.6. This would essentially extend the commonplace regional economic development practice whereby localities take ownership over land in order to prepare it for prospective industrial tenants. See, e.g., Teri Weaver, *The decades-long chase to land a semiconductor giant near Syracuse (timeline)*, SYRACUSE.COM (Sept. 15, 2023), <https://www.syracuse.com/business/2022/10/the-decades-long-chase-to-land-a-semiconductor-giant-near-syracuse-timeline.html> (discussing steps Onondaga County, New York took to acquire and improve land for semiconductor manufacturer).

⁵⁹⁴ See *supra* Section I.C.6. Aside from distressed factories, the government could also take public ownership over financially healthy private factories through nationalization or eminent domain. This would raise constitutional complexities under the Fifth Amendment’s Takings Clause distinct from instances where the government creates new public factories or negotiates for ownership over private factories at risk of closure. See U.S. CONST. amend. V.

Public factories could once again be deployed address a variety of critical production shortfalls and supply-chain vulnerabilities. To imagine just a few possibilities: Public factories for medicine production—both pharmaceutical inputs and finished drugs—could help the United States decouple from its reliance on China for active pharmaceutical ingredients,⁵⁹⁵ and check the anticompetitive behavior by pharmaceutical companies that make drugs unaffordable.⁵⁹⁶ Public factories for modular housing production could help reduce the United States’ housing shortage by derisking a capital intensive industry that has not reached sufficient scale in the private market.⁵⁹⁷ Public factories for critical energy components could help update and expand the grid by alleviating the bottleneck for electrical transformers caused by private sector reluctance to scale up production.⁵⁹⁸ Public factories to develop and mass produce next-generation energy storage technologies such as solid-state batteries could help the United States protect its energy security while competing with China for control of a cutting-edge strategic technology.⁵⁹⁹

⁵⁹⁵ See Olivia Webb Kosloff, *A National Defense Strategy for Generic Drugs*, AM. AFFS. (Summer 2024), <https://americanaffairsjournal.org/2024/05/a-national-defense-strategy-for-generic-drugs/>; see also Benjamin Noon, *Breaking China’s Pharma Death Grip*, AM. COMPASS (Nov. 26, 2024), <https://americancompass.org/breaking-chinas-pharma-death-grip/>.

⁵⁹⁶ See *Antimonopoly Basics: High Drug Prices & Monopoly*, OPEN MARKETS INST., <https://www.openmarketsinstitute.org/learn/drug-prices-monopoly>; *Getting to Lower Prescription Drug Prices: The Key Drivers of Costs and What Policymakers Can Do to Address Them*, COMMONWEALTH FUND (Oct. 1, 2020), <https://www.commonwealthfund.org/publications/fund-reports/2020/oct/getting-lower-prescription-drug-prices-key-drivers-costs>.

⁵⁹⁷ See Michela Zonta, *Increasing Affordable Housing Stock Through Modular Building*, CTR. FOR AM. PROGRESS (Feb. 6, 2024), <https://www.americanprogress.org/article/increasing-affordable-housing-stock-through-modular-building/>; Binyamin Appelbaum, *Why Do We Build Houses in the Same Way That We Did 125 Years Ago?*, N.Y. TIMES (Dec. 18, 2023), <https://www.nytimes.com/2023/12/18/opinion/editorials/housing-costs-modular-homes.html>.

⁵⁹⁸ See NAT’L INFRASTRUCTURE ADVISORY COUNCIL, ADDRESSING THE CRITICAL SHORTAGE OF POWER TRANSFORMERS TO ENSURE RELIABILITY OF THE U.S. GRID 12-13 (Jun. 2024), https://www.cisa.gov/sites/default/files/2024-09/NIAC_Addressing%20the%20Critical%20Shortage%20of%20Power%20Transformers%20to%20Ensure%20Reliability%20of%20the%20U.S.%20Grid_Report_06112024_508c_p df_0.pdf; Sagar Chopra & Benjamin Boucher, *Supply shortages and an inflexible market give rise to high power transformer lead times*, WOOD MACKENZIE (Apr. 2, 2024), <https://www.woodmac.com/news/opinion/supply-shortages-and-an-inflexible-market-give-rise-to-high-power-transformer-lead-times/>.

⁵⁹⁹ See Bentley Allan, Milo McBride & Noah Gordon et al., *How the U.S. Can Stop Losing the Race for Clean Energy*, CARNEGIE ENDOW. FOR INT’L PEACE (Feb. 26, 2025), <https://carnegieendowment.org/research/2025/02/how-the-us-can-stop-losing-the-race-for-clean-energy?lang=en>; Varun Sivaram & Noah Gordon, *How the United States Can Win the Battery Race*, FOREIGN POL’Y (Oct. 21, 2024), <https://foreignpolicy.com/2024/10/21/us-china-competition-battery-production-ev-minerals-solid-state/>.

Public factories can provide policymakers with an additional powerful and flexible tool to address some of our most urgent challenges. At a time when supply shortages have become all too common, reintroducing public factories into the modern industrial policy toolkit is essential.