

The Case for Legislation to Out-Compete China

ROBERT D. ATKINSON | MARCH 2021

With the rise of China, the U.S. economic and technology environment has fundamentally and inexorably changed. America needs an advanced technology industrial policy to compete effectively—but that will require modernizing hidebound economic thinking that has long considered “industry policy” to be anathema.

KEY TAKEAWAYS

- It is time to abandon the prevailing economic doctrine that disparages an active government role in promoting industrial competitiveness. Tired ideas like “government can’t pick winners” serve as a millstone around the neck of needed change.
- America needs an advanced industry and technology strategy—a set of policies and programs explicitly designed to support *specific* industries and technologies.
- There are many shades of policy intervention, so it is a gross oversimplification to say the choice is doing nothing or engaging in Soviet-style planning. That framing might win over shallow thinkers, but it’s bad policy analysis.
- Support for “factor inputs” such as research funding and for non-specific policy tools such as STEM immigration and the R&D tax credit is necessary, but not sufficient. Congress needs to enact targeted support for key technologies and industries.

INTRODUCTION

With the rise of China, the U.S. economic and technology environment has fundamentally and inexorably changed. China is a technology juggernaut, with the Communist Party aiming to achieve global dominance in most advanced industries and technologies. Against that backdrop, lawmakers in Congress are now considering measures that until recently would have been decried as “industrial policy,” including steps to strengthen U.S. advanced industries including semiconductors, artificial intelligence (AI), robotics, and biopharmaceuticals, among other industries and fields.¹

This is as it should be: Just as the Great Depression compelled the United States to jettison long-standing economic doctrines that were ill-suited to effectively responding to new challenges, the United States today must do the same by abandoning the prevailing economic doctrine that disparages a more active role for government in promoting industrial competitiveness and technological innovation. Tired old contentions such as “government can’t pick winners” were never right; but now they only serve as a millstone around the neck of needed change. Keynes had it right when he stated, “The difficulty lies, not in the new ideas, but in escaping from the old ones.”²

It is time for U.S. policy analysts, pundits, and policymakers to take a fresh and unbiased look at the role of the state in industry and technology advancement. An unwillingness to do so will mean, at best, the incremental development of a weak, generic form of advanced industry policy that will almost surely fail in addressing the existential China technology challenge.

The United States must jettison the prevailing economic doctrine that disparages a more active role of government in promoting industrial competitiveness and technological innovation that reflects the complex and hence public-private character of modern technologies and the industrial supply chains that deliver them.

Casting off the shadows of long defunct (and also current) economists who conceive of innovation industries as the same as commodity-based “widget” industries, and who deny the very validity of the concept of national industrial competitiveness, is a necessary first step because it opens the debate to fresh, empirically-based, pragmatic analysis, rather than the ideological edicts related to industrial strategy that now pass for expert insight from economists.

But as important as that is, this new recognition needs to be translated into concrete policy action. There are many steps Congress and the Biden administration should take—steps the Information Technology and Information Foundation (ITIF) has detailed in numerous reports.³ Near the top of the list should be passing and funding the Endless Frontiers Act, including charging (and funding) the National Institute of Standards and Technology (NIST) with expanded functions; significantly expanding the research and development tax credit; and instituting within the federal government a role for sector-by-sector industrial strategy analysis. Regardless of what path Congress takes, the country needs big, bold, and sustained action if it is to maintain its technological and advanced industry leadership.

WHAT IS INDUSTRIAL STRATEGY?

Ever since the concept of a national industrial strategy was first proposed in the late 1970s, it has received scorn from virtually all neoclassical economists, who advocate it be treated as the economic equivalent of chiropractors (who are looked down upon by medical doctors). But the idea is getting a new life, largely because of the growing awareness of the economic, technology, and national security threats posed by China.

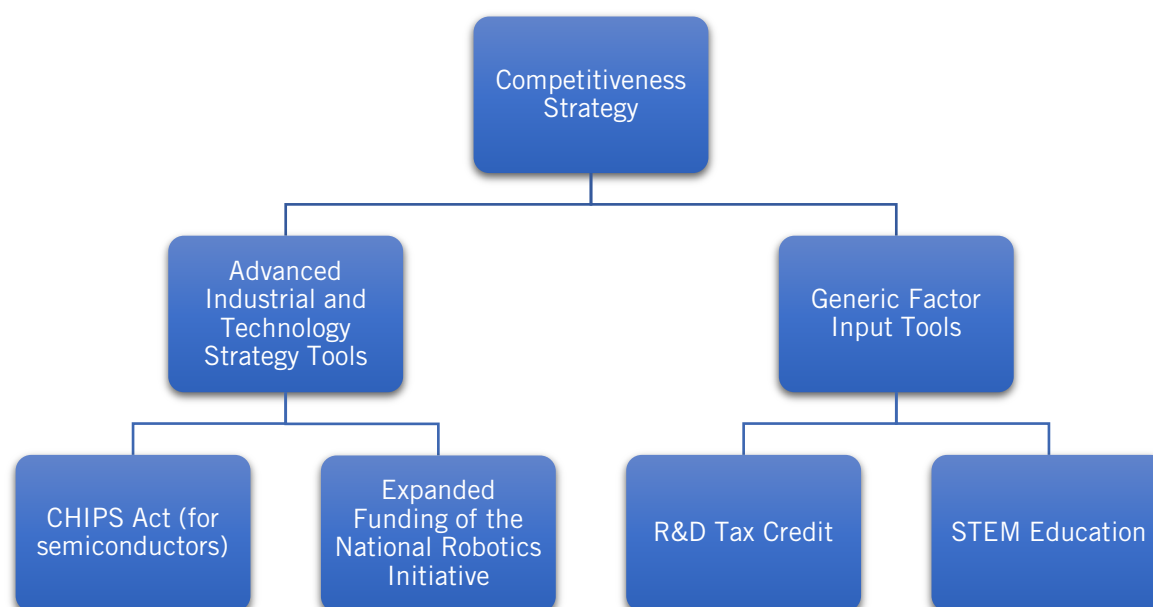
Policymakers on both sides of the aisle are rejecting the dead-end, intellectual straightjacket of conventional economics. The House Republican's *China Task Force Report* calls for a national industrial strategy, including doubling federal funding for basic science, expanding industry-university-federal lab partnerships, expanding funding to help spur innovation in lagging regions, and doubling the research and experimentation tax credit.⁴ Democrats Chris Coons (DE), Chuck Schumer (NY), Krysten Sinema (AZ), and Mark Warner (VA) and Republicans John Cornyn (TX), Tom Cotton (AR), Marco Rubio (FL), and Todd Young (IN) have all sponsored or co-sponsored key competitiveness legislation. Similar bipartisan efforts have been introduced in the House. And President Biden's Build Back Better plan includes funding for industrial strategy programs.⁵

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But what exactly is an industrial strategy (or as it has also been termed, industrial policy)? As Robert Reich once quipped, industrial policy “is one of those rare ideas that has moved swiftly from obscurity to meaningless without any intervening period of coherence.”⁶ But this lack of coherence is because, just as in other areas of policy—energy, transportation, health, defense, and others—the ideal policy not only differs depending on who is advocating for it, but evolves over time. Industrial policy is no different. Critics know that if they can define industrial policy so broadly that it includes Brazil putting tariffs on imports as well as Defense Advanced Research Projects Agency (DARPA) funding GPS and the Internet, they make the term meaningless.

The definition of an advanced industry and technology strategy (AITS) is simple: It is a set of policies and programs explicitly designed to support *specific* targeted industries and technologies. As figure 1 shows, the R&D tax credit would not qualify as an industrial or technology policy tool because its focus is not on any particular industry or technology, but rather on R&D generally. It is, however, an overall innovation or competitiveness strategy tool. Likewise, the CHIPS (Creating Helpful Incentives to Produce Semiconductors) Act, which was designed to spur the domestic growth of the semiconductor industry, is a component of AITS because it targets a particular industry. But it is also a component of a broader competitiveness or innovation strategy. Expanding funding for the NSF-led National Robotics Initiative would be an AITS policy because it is specifically designed to support the development of a particular technology. In contrast, any program that expands STEM (science, technology, engineering, and math) education would not be an AITS tool, but would be an innovation or competitiveness strategy tool.

Figure 1: Conceptualization of industrial strategy tools



An AITS doesn't mean reflexively supporting every industry and technology. To the contrary, it means picking particular ones to support. There are four main criteria for such support:

1. The industry or technology must be one that without proactive government policy support would underperform, either in general or because of foreign competition.
2. The United States has some potential for success in the industry or technology because of existing assets and strengths.
3. Success in the industry or technology must be important to achieving key national goals, such as national defense and security, energy security and climate, a better trade balance, or faster productivity growth.
4. The firms in the industry should want support and be willing to invest at least some of their own resources in the efforts.

THE ECONOMICS DISCIPLINE SHOULD NOT BE LOOKED UPON TO SHAPE AN ADVANCED INDUSTRY AND TECHNOLOGY STRATEGY

Until recently, conventional neoclassical economists have held an almost unassailable veto power over whether U.S. policymakers deciding to adopt an advanced industrial and technology strategy. This is why the United States, unlike virtually every other advanced nation, has not had an AITS, at least since the neoclassical economics doctrine became dominant after WWII. In contrast, in most non-Anglo-Saxon nations, the economics discipline is more pragmatic and accepting of government's role in helping to spur technological innovation and industry competitiveness. And while from WWII to the early 1980s the United States had the world's best national innovation policy, largely conducted through the Defense Department and NASA, it was not allowed to be called an AITS; rather, it was "the hidden development state."⁷ In other words, it had to be hidden; it couldn't be overt.

Economists should not be given that much authority over whether the federal government develops an AITS for the simple reason advanced industry and technology development is the most important driver of economic welfare. And economists actually know very little about it, as it is a discipline that studies one principal thing: the workings of price-mediated markets. Noted economist John Kenneth Galbraith once wrote that “an economist without a price system is a priest without a divine being.”⁸ For them, there is no problem that prices can’t solve. Want less carbon pollution? Tax it. Want more jobs? Lower the minimum wage. Want more trade? Get rid of tariffs. Want more innovation? Get out of the way and let the price mechanism work its magic. In short, neoclassical economics views the economy as a vast marketplace, generating billions of price signals and exchanges daily to achieve the most efficient allocation of goods and services.

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This overarching worldview might have worked 50 years ago, when the innovation industries represented a smaller part of the U.S. economy—and when China was a peasant economy. But today, holding onto neoclassical economics as the bible for industrial and technology policy is like holding onto classical economics in a post-Great Depression world.

WE LIVE IN AN INNOVATION WORLD, NOT A COMMODITY WORLD

The old world, wherein neoclassical economics made sense, is gone and won’t come back. One reason is innovation and innovation industries are a key driving force in U.S. economic development—and these industries operate differently from commodity-based, price-focused industries. Industries such as electronics, information, biopharmaceuticals, and aerospace are innovation based and experience declining marginal costs, focus on constant innovation and investment in R&D, and rely on intellectual property rights. Moreover, many other industries are rapidly transitioning toward being innovation industries as technology, including information technology, is enabling significant innovation. With the advent of autonomous and electric vehicles, the automobile industry is seeing the rise of the most disruptive technology in over a century. Retail is being transformed by e-commerce, finance by Fintech, and traditional manufacturing by AI, the Internet of Things, robotics, and 5G.

As such, the most important economic task now is to drive a robust rate of economic evolution: the introduction and expansion of new products, production processes, and business models in the United States. And while a market-based price system is the ground on which robust innovation must stand, it is not enough if the goal is to maximize U.S. innovation and competitiveness. For that, we need the development of institutions, including government policies and programs, that support the fastest possible rate of technological innovation and progress.

Leading scholars of innovation, such as Richard Lipsey and Ken Carlaw, have rightly noted that market forces alone are woefully inadequate to generate optimal rates of innovation. They’ve highlighted two factors that make it so: (1) pervasive uncertainty, with technology innovations enabling other innovations, and (2) firms’ inability to plan for or benefit from these innovations. As

they wrote: “The fact that invention and innovation are fraught with uncertainties upsets the idea that the private sector will allocate resources, including R&D, in a socially optimal way.”⁹

Unfortunately, when it comes to guiding policymakers who want to boost productivity, innovation, and competitiveness, the economic emperor has no clothes. They have nothing useful to offer because their discipline does not enable them to even ask the right questions, much less identify the right solutions. When it comes to productivity, economist Alan Blinder wrote, “Nothing—repeat, nothing—that economists know about growth gives us a recipe for adding a percentage point or more to the nation’s growth rate on a sustained basis. Much as we might wish otherwise, it just isn’t so.”¹⁰ As for innovation, economist Moses Abramowitz referred to it as “the measure of our ignorance.” And when it comes to competitiveness, Paul Krugman wrote that it “is a dangerous obsession.”¹¹ Nothing to see here folks; we can all go back to talking about interest rates, stock prices, and the minimum wage.

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What is perhaps most surprising about conventional economists’ and policy analysts’ assessment of industrial policy is that virtually none of it is based on actual research, much less statistical research controlling for multiple variables. Rather, it consists largely of unformed assertions; so obvious to the expert class that they don’t even merit evidence. (See box A.) Heritage Foundation scholar Ted Bromund wrote, “The track record of industrial policy is bad.”¹² His only evidence is that the EU claims it is doing industrial policy, and its economy is not doing well (even though in 2019 the EU ran a \$151 billion trade surplus with the United States).¹³ Economist Larry Summers stated his opinion, in the aftermath of the Department of Energy’s (DOE) clean energy loan program after the 2009 Recovery Act, that government “is a crappy VC [venture capitalist].”¹⁴ In fact, it was a pretty good venture capitalist, with the actual losses being just 3.3 percent of total disbursements.¹⁵ The goal was not for the government to make money (if that were the goal, leave it up to the private sector). The goal was to invest in innovation that otherwise wouldn’t have happened, while keeping losses small. *The Economist* agreed, writing (without any citations) that “the government has a terrible record of picking winners.”¹⁶ Apparently, they were not thinking of the Internet, AI, GPS, MRI machines, hybrid corn, jet aircraft, microwaves, smartphone technologies, or iron steam ships.¹⁷

Still others, in large part because they know so little about actual AITS policies and the many different varieties, claim that any step in this direction for the United States means turning into China. Peterson Institute economist Gary Hufbauer wrote, “Interventionist policies stimulate interventionist responses. That’s the nature of the game,” as if all interventionist policies take their cue from the Chinese Communist Party (CCP), and that the ideal role of the state is to do nothing.¹⁸ Likewise, Daniel Rosen of the Rhodium Group worries that, “The risk of China is that its success tempts us to screw up our own system, that because we haven’t been able to beat them we’re going join them in [adopting] too much state intervention in the marketplace.”¹⁹ In other words, they believe (wrongly) that U.S. policymakers and the policy system are so incompetent and corrupt that the first baby steps toward the government caring about critical industries and technologies will open up the flood gates to calamity.

Box A: Evaluating Industrial Policy

One of the common criticisms of industrial policy is it doesn't work—or it has not been studied enough to determine whether it works.

There are a host of problems with this framing. First, saying that industrial policy doesn't work is like saying that health policy or transportation policy don't work. To have any real meaning, an assessment would have to be much more specific, such as “protecting existing industries through tariffs lowers GDP.” As Nathan Lane wrote in a study of industrial policy evaluation, “Since industrial policy is a catch-all for many terms and concepts, it is difficult to propose a single means of examining their impact.”²⁰

Second, any analysis and framing has to be context specific. What might work in a developing economy may not work in a developed economy at the leading edge of innovation and vice versa.

Third, it is important to measure industrial policy against the proper goal. Some studies have found that while supporting particular industries through trade measures may boost industry output and competitiveness, they have either no effect or a negative effect on productivity and GDP growth. But in some cases, the former may be a valid goal on its own, especially if that goal is to support critical technological and industry capabilities vis-à-vis a nation's adversaries.

Fourth, it is important to identify the counterfactual. Some argue that studies show that industrial policy is not effective. One analyst pointed to a comprehensive review of the literature on industrial policy, arguing that because of methodological difficulties, it is hard to actually prove that industrial policy works. Leaving aside the notion that “industrial policy” is not just one unified thing, these critics never point out that it is also difficult to prove that doing nothing might be the superior alternative. In an ideal world, policymakers would know with some certainty whether to act. In the real world, they seldom get such assurances.

Fifth, some claim that industrial policy interventions have not been evaluated and therefore policymakers are “flying blind” when implementing them. But this assumes that many other areas of economic policy are guided by careful evaluation, which is not the case. Moreover, there is a long literature of evaluation of industrial policy, with clear lessons of which kinds of interventions actually work. For example, in a study of industrial policy evaluations, the Organization for Economic Cooperation and Development (OECD) identified a number of policy best-practice principles that can help ensure success, including: “The use of matching grants might help to identify higher-quality projects and lower total public outlays. Good policy designs need to ensure competitive and transparent selection processes, and avoid favoring incumbents or providing opportunities for lobbying,” and, “Policy seems to have been more successful where there is opportunity for experimentation and learning and when it has leveraged other private funding.”²¹

Moreover, many programs have undergone careful evaluations and found them to be effective. In the United States, programs such as the Small Business Innovation Research (SBIR) program, NIST's Advanced Technology Program, NIST's Manufacturing Extension Partnership program, the Manufacturing USA Program, the R&D tax credit, NSF's Industry/University Cooperative Research program, DOE's ARPA-E program, and SEMATECH, have all been evaluated and found to be effective.²²

As figure 2 shows there is a continuum of state involvement in any economy, and to label anything that goes beyond no or little involvement as the equivalent of the CCP economy betrays a Manichean bent for good and evil choices. There are many shades of intervention, and to say that the choice is nothing or Soviet-like CCP planning is to engage in the grossest simplification. Painting it this way might feel good and win over shallow thinkers, but it's bad policy analysis.

CHINA

As John Kenneth Galbraith, analyzing the emergence of Keynesian economics after the Great Depression, wrote, “The conventional wisdom [gives way not so much to new ideas as to] the massive onslaught of circumstances with which [it] cannot contend.”²³ Today, that onslaught is China; more particularly, the threat to the United States from CCP, Inc. There has never been an economy such as China's: massive in size; nondemocratic; lacking any rule of law or transparency; firms (publicly and privately owned) that take direction from the state; an overwhelming reliance on unfair, innovation mercantilist practices; and a goal to be the most powerful nation on Earth. And China has closed the gap and moved ahead in a number of key industries and technologies (e.g., solar panels, 5G equipment, high-speed rail), and in many others is rapidly closing the gap.

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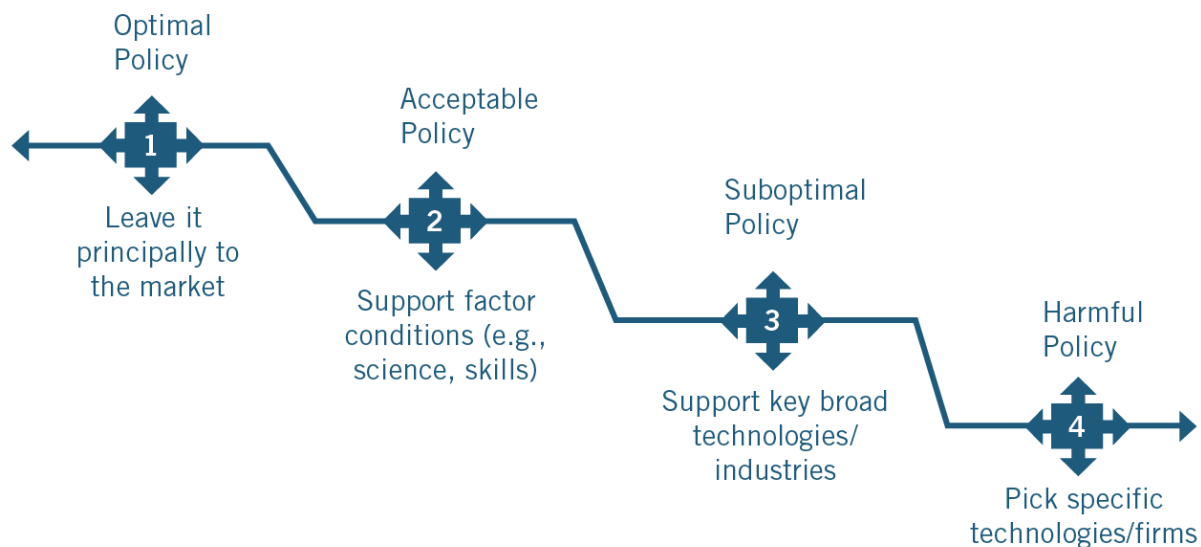
The pull of China's economic and technology influence is like that of the Borg in *Star Trek*—inexorably subsuming others into its mindset. To continue living in a world in which it is assumed to have no impact on U.S. economic thinking is to believe, as Larry Summers does, that “[t]he laws of economics, it's often forgotten, are like the laws of engineering. One set of laws works everywhere.”²⁴ This was never true—and it certainly is not true with China. China requires a new set of economic laws that recognize the need for an advanced technology strategy, for unless the U.S. federal government establishes such a strategy, the United States will in all likelihood continue to lose market share in a host of advanced industries, including aerospace, life sciences, vehicles, semiconductors, and Internet, with negative implications for innovation, national security, and living standards. While China is the leading factor motivating a rethinking of a U.S. AITS, we should also remember that an effective one will also help the U.S. economy compete more effectively in advanced industries with other nations and regions, such as Japan and Europe.

A FRAMEWORK FOR THINKING ABOUT AN ADVANCED INDUSTRY AND TECHNOLOGY STRATEGY

The choice of industrial strategy is not binary: Adam Smith *laissez faire* vs. Xi Jinping's neo-command economy. In fact, there is a continuum of state involvement in industry and technology policy from doing nothing to picking particular firms and technologies (e.g., rather than batteries, the government picks only gold nanowire gel electrolyte batteries for support). (See figure 2.) For most, particularly free-market conservatives, position 1 (leave it principally to the market) is the right approach. Position 2 (support factor inputs such as science funding and non-specific policy tools such as STEM immigration and the R&D tax credit) is often acceptable, particularly to more centrist and liberal economists. Beyond that, most economists are blind to any distinctions between position 3 (support key broad technologies and industries) and position 4 (pick specific

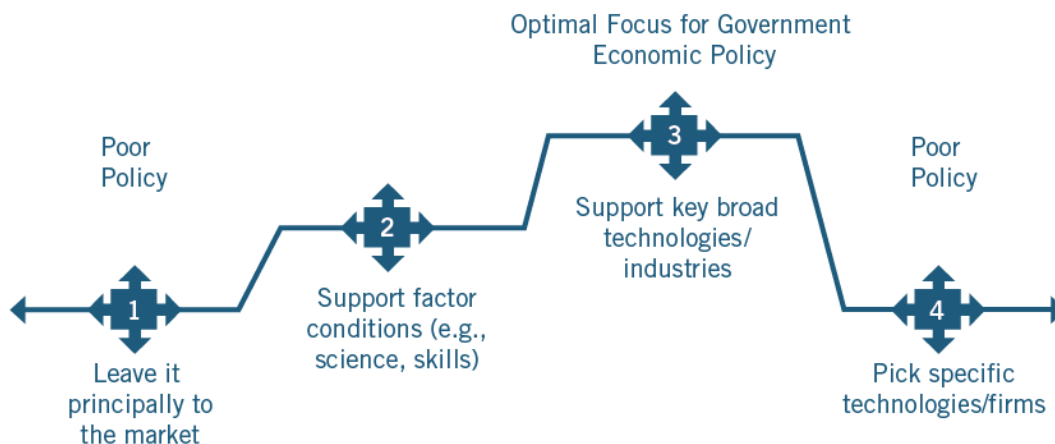
technologies and firms), seeing them as essentially a distinction without a difference, with both in the dangerous territory of “industrial policy” or even command-economy socialism. These and other pundits wrongly imply that any move by the U.S. government to go beyond position 2 is simply emulating Chinese state capitalism—something they rightly note the United States should not do.

Figure 2: How conventional economists see state intervention in industries and technologies



In contrast, scholars with an innovation focus and background see this continuum differently. (See figure 3.) Position 1 (leave it principally to the market) is a recipe for lower levels of innovation and competitiveness failures. Position 2 (factor inputs) is important, but inadequate, particularly to respond to China. Position 3 (support key broad technologies and industries) is the sweet spot and should be the main focus of new U.S. policy. Position 4 (pick specific technologies and firms) should be avoided, in part because of the risk of picking the wrong firm or narrow technology.

Figure 3: How innovation economists see state intervention in industries and technologies



To put a finer point on this debate, one can identify three camps. The first is the free-market camp that rejects almost any role for the state other than protecting property rights, as they believe that

externalities and other market failures around innovation are rare and limited. And to the extent they exist, they are always outweighed by government failures.

The second are economists who acknowledge the existence of innovation-related market failures and therefore merit some modest government response. Economists have set a standard that the only reason for government intervention, other than to foster equity, is to respond to identifiable market failures. A commonly accepted market failure is externalities from R&D, which refers to the fact that when a company invests in R&D it cannot capture all the returns (even with such strong intellectual property protection as patents), and that some of the returns spill over to competitors and society. Absent a policy intervention, such as the R&D tax credit to better align firm benefit with societal benefit, firms will invest in a suboptimal amount of R&D. These economists would support both position 1 and 2 policies.

This is why, even though there is increasing concern among policy elites over China's technological rise, most of the proposals to date have been grounded in position 2 thinking. Case in point is the recent report from the China Strategy Group, a group founded by Eric Schmidt and Jared Cohen designed to address the China competitiveness challenge.²⁵ The report rightly highlights the unprecedented nature of the challenge from China and even discusses critical technologies. But its principal substantive policy proposals are all from position 2: more STEM immigration and education, better educating researchers for industry roles, better tech transfer policies for universities, incentives for automation, and more investment in physical infrastructure.

While these kinds of position 2 policies are needed, they are nowhere near enough to meet the China challenge. To do that, the nation needs industrial policies that do more than provide more "ingredients" for firms to incorporate, or that spur more start-ups. It needs policies focused on key sectors and technologies, in part to get firms in the United States to change their investment behavior (to invest more in the United States in advanced technology development and production).

There would be less need to embrace position 3 if externalities were modest and relatively uniform. In fact, innovation industries and technological innovation generally are subject to variety of market failures, collectively requiring an explicit AITS. One such failure is the level of externalities differing considerably between technologies. For example, the societal benefits from the development of the CAT scan machine were quite large compared with average externalities.²⁶ A policy tool such as the R&D tax credit would be adequate to account for these greater-than-average externalities. In this sense, this is why the government is in fact better positioned to "pick winners" than business because business rightly does not care about externalities and will underinvest in certain technologies.

Another market failure relates to time horizon. Firms can maximize short-term profits by moving manufacturing overseas or cutting R&D, even if neither is in their long-term interests or the nation's interests. As the Business Roundtable reported, "The obsession with short-term results by investors, asset management firms, and corporate managers collectively leads to the unintended consequences of destroying long-term value, decreasing market efficiency, reducing investment returns, and impeding efforts to strengthen corporate governance."²⁷

In addition, most innovation industries are subject to increasing returns to scale and learning by doing in imperfect markets. In these industries, firms that are more quickly able to expand

production achieve a sustainable lead over their competitors by maintaining lower cost structures. This means that, given the right policies, a single country or trade bloc can monopolize all the manufacturing in a particular industry.

Moreover, another market failure is other governments are providing significant incentives, either for U.S. firms to locate production offshore, or for their own firms to compete against U.S. firms. Unless the federal government provides its own funding for supporting advanced industries and technologies, the U.S. economy will see its global share of both shrink.

In addition, national security is another long-recognized justification for a governmental role, and national competitiveness in many advanced technology sectors is increasingly tied to U.S. defense needs. Some free-market advocates would claim that if the government needed particular defense capabilities it should just fund them directly; it doesn't need to support the overall commercial technology base. But the reality is that as a consumer of technology goods, the U.S. defense sector is quite small, and funding a defense-only technology sector would be enormously expensive, not to mention causing lagging innovation. Moreover, because of increasing economies of scope, process technologies will largely be the same for both civilian and military applications, and weak civilian technology capabilities will mean weak military capabilities.

Finally, and most importantly, the first two positions don't take into account the presence of often massive external benefits from innovation. As Lipsey and Carlaw wrote:

Some spillovers are externalities, in the sense that they provide what are at the time identifiable and (at least in principle) measurable benefits to the receiving agents. Others, however, go well beyond externalities, conferring benefits on subsequent agents that may extend over times and spaces that cannot even be identified, let alone measured, at the time of the original initiating event.²⁸

They point to many example of massive, unpredictable, and long-term external benefits, including electric lighting, the laser, the Internet, and semiconductors, writing about its implications:

The absence of obvious monetary incentives to the original inventors and innovators commensurate with all the economic gains that they will create down the line provides a reason for the NPS (not-for-profit sector) to support these activities when the spillovers can be at least dimly appreciated even if not identifiable in detail. Note that by covering all spillovers, this conclusion goes further than Arrow's classic justification for subsidizing R&D, which only applies to identifiable externalities.²⁹

And overarching all of this is the fact that the future technological strength of the U.S. economy depends on the strategy and decisions made by the top 100 or so U.S. advanced technology companies, and too often that strategy does not align with key national interests. While start-ups are important, it is naïve to believe that America can compete with other nations if the top corporations' technological and production capabilities are weakened, either overall or in the United States in particular. To use an example, when telecom equipment companies Lucent and Nortel went out of business, partly because of U.S. policy failures, but also because of corporate strategy mistakes, the U.S. economy suffered long-term damage. Today, any strategy that does not address how to cope with and ideally limit future weaknesses of once-leading technology companies, such as Hewlett-Packard, IBM, and GE, is an ineffective one. Too many companies have return-on-investment (ROI)

periods that are too short to adequately support the kinds of bold investments needed for U.S. companies to lead the world. To be clear, this does not mean picking individual companies as champions, but rather addressing the core challenges of 1) corporate short-termism driven by stock market pressures and 2) pressures on corporations to move key production outside of the United States.

The future technological strength of the U.S. economy depends on the strategy and decisions made by the top 100 or so U.S. advanced technology companies, and too often that strategy does not adequately align with key national interests.

In summary, the shift of the U.S. economy to being a more innovation-driven one, coupled with the threat from China, requires either that economists recognize these realities and embrace the need for an AITS, or in the absence of this, that policymakers turn to other sources of policy advice to help them craft an effective AITS.

THE AMERICAN TRADITION IS IN FACT DEVELOPMENTALIST

Before doing that, it is important to address one other key issue. Even if more economists could agree that innovation industries are different and require an AITS, many, particularly conservatives, would argue that such a strategy goes against the very political and economic “DNA” of the republic. In this narrative, the United States had and has a fundamentally free-market economy in which government plays only a small role. This framing of U.S. economic and political history portrays any attempt to implement an AITS as importing a foreign and subversive philosophy that threatens the very soul of the republic.

For example, Heritage’s Kim Holmes sees an AITS as a fundamental threat to the republic, writing: “Do we want to empower a government even more in industrial and other kinds of economic and social policy that will surely use that very increased power to destroy the things that we love and believe about this country?”³⁰ Cato fellow Roger Pilon asked:

Where in America is the constitutional authority for such a policy?... Search that document as you will, you will find in it no power to engage in “industrial policy,” not least because such a power ... would defeat the very purpose of the document—to authorize and institute a government to secure our individual rights.³¹

They and other conservatives conveniently gloss over the U.S. history of the federalists, wanting us to believe that the only founders were Democratic-Republican anti-federalists such as Jefferson, who disdained a strong federal government and would have been content for the United States to import industrial goods from the motherland (Great Britain) while enjoying a pastoral existence. But Whig federalists such as Alexander Hamilton had a different idea. If the United States were to become more than a dependent agrarian periphery economy, it needed to industrialize—and for that, it needed a strong state to work with and support private enterprise. That is why he wrote in Federalist No. 11, “Under a vigorous national government, the natural strength and resources of the country, directed to a common interest, would baffle all the combinations of European jealousy to restrain our growth.”³²

As Michael Lind wrote in *Land of Promise*, one of the first acts of the newly established federal government was to establish a state-owned manufacturing industry—the federal arsenals.³³ They

were scattered throughout the country to jump-start regional economic development, which they did. The first Congress, which included many drafters of the Constitution, passed tariffs for infant industry protection as well as revenue, as outlined in Hamilton's *Report on Manufactures*. And although it was a state of New Jersey project, Hamilton and others created the town of Paterson as an artificial tech campus powered by the waterfall on the Passaic River. It failed at first, but eventually became the silk capitol of America.

The reality is that national industrial policy is part of the American tradition dating back to before the Constitutional Convention. It is time to rediscover that long, proud, and successful history.

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About the Author

Robert D. Atkinson (@RobAtkinsonITIF) is the founder and president of ITIF. Atkinson's books include *Big Is Beautiful: Debunking the Myth of Small Business* (MIT, 2018), *Innovation Economics: The Race for Global Advantage* (Yale, 2012), *Supply-Side Follies: Why Conservative Economics Fails, Liberal Economics Falts, and Innovation Economics Is the Answer* (Rowman Littlefield, 2007), and *The Past and Future of America's Economy: Long Waves of Innovation That Power Cycles of Growth* (Edward Elgar, 2005). Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill.

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ENDNOTES

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