

THE ECONOMICS OF INVESTING IN AMERICA

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1. Introduction

In what has been known as trickle-down economics, policymakers cut taxes for big corporations and the wealthy and claimed this was the best way for the economy to grow. But this also meant severely reducing public investment in infrastructure, education, and more. Some of these tax policies also made offshoring to lower-taxed countries more attractive. Meanwhile, as the government pulled back from supporting American manufacturing—even at the expense of losing good American jobs and our competitive edge in strategic sectors—countries like China intervened heavily to tip the playing field.

Our nation failed to make must-needed investments in growing our economy and the middle class. Trickle down policies failed to recognize the importance of public investment in our economy and left our economy and workers vulnerable to economic shocks. Investment and growth failed to rise, while economic gains went disproportionately to the top and [failed](#) to “trickle down.” At the same time, United States fell behind in manufacturing leading-edge technologies. The approach created brittle supply chains that broke down in the face of global shocks, hollowed out communities around the country, and generated rising [economic inequality](#).

That is why President Biden came to office determined to rebuild the economy from the middle out and bottom up. Bidenomics has three pillars—making smart investments in America, educating and empowering workers, and promoting competition to lower costs and help small businesses—each of which is designed to support strong, stable, and sustainable economic growth. Combined, these pillars will deliver growth that benefits people and communities across our society.

Core to making this vision a reality are the President’s historic investments in infrastructure, semiconductors, and clean energy industries—including the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act. Together, these investments aim to make the United States competitive in critical and growing industries and a world leader in innovation and infrastructure—while building those industries around good-paying jobs that will be sustainable over time.



This brief primarily lays out the economic rationale behind the first pillar of Bidenomics—the President’s Investing in America agenda. First, we explain why it is important to invest in American infrastructure, clean energy, and semiconductors. Then, we describe the economics of how we are investing—an implementation approach that maximizes America’s strengths, including its workers and communities, and breaks down barriers to producing key technologies and products at-scale. Altogether, the goal is to build from the middle out and bottom up—supporting stable, steady, sustainable, *and* shared growth now and into the long term.

SIGNS OF SUCCESS

INVESTMENT IS UP

There are already early signs that private capital is ramping up investment in critical industries and that new projects are underway—a necessary first step towards stronger, more sustainable economic growth. Since the President took office, companies have announced over **\$500 billion** in investments in the United States, including over \$200 billion in semiconductor and electronics manufacturing and nearly \$225 billion in clean energy, electric vehicle, and battery investments. Inflation-adjusted spending on manufacturing construction overall has increased by nearly 100 percent since the end of 2021. After years of flat investment in manufacturing construction in the United States, trends are moving in a different direction.



2. Strategic Investment

We are catalyzing investments in critical industries, innovation, and infrastructure.

The central goal of President Biden’s plan to invest in America is to foster essential productivity gains, economic growth, and improved economic outcomes for American workers and consumers. The economic evidence makes clear that strategic, [targeted](#) support of critical and [emerging](#), innovation-driven [industries](#)—particularly when there is a strong foundation to start from—can be an effective way to catalyze [economic development](#).

A. Investing in the foundational infrastructure that is necessary for all industries to thrive

Investments in industries are often [more productive](#) and can deliver stronger, more stable growth when made on top of a solid foundation of reliable infrastructure. Physical infrastructure increases [productivity](#) and economic [growth](#), can [crowd in](#) private investment, and connects communities all over the country to economic opportunities. Meanwhile, digital infrastructure like broadband promotes [growth](#), [employment](#), [health](#), and [education](#). Yet, when the President entered office, public investments in infrastructure as a share of GDP had fallen by more than [40 percent](#) since the 1960s. The United States was [falling behind](#) in the quality of our infrastructure.

For these reasons, the President’s [plan](#) invests hundreds of billions of dollars to repair and rebuild the nation’s roads and bridges; rail systems; airports; and infrastructure at coastal ports, inland ports, and waterways. It also invests in expanding broadband connectivity to rural communities, and lowers the cost of broadband internet for millions of American households.

B. Supporting targeted investments in semiconductors, clean energy, and electric vehicles

President Biden’s approach is to collaborate with the private sector, with a strategy that is [government-enabled and private sector-led](#), that aims to innovate, build at scale, compete, and create good jobs across the country. It is designed to catalyze private investments in strategically targeted industries that are crucial for economic



and national security, that can deliver strong, shared growth now and in the years to come. To meet our national security, economic security, energy security, and climate goals, we must support investments in critical technologies, while working with and encouraging our allies to do the same. Meeting our historic goals to tackle the climate crisis means making large scale investments in clean technologies, resilient infrastructure, and reliable supply chains. While the United States has long prioritized some industries for their significance to national security, decades of evidence indicate that there are a few targeted areas where smart government support is important to catalyze private investment:

- **Semiconductors** are [now basic components](#) in a vast array of products, from consumer electronics to automobiles, healthcare equipment, and [weapons systems](#). Yet, since the 1990s, the share of global semiconductors produced by the United States has fallen by [two thirds](#). The pandemic demonstrated that when the global supply is disrupted, the consequences can be [far-reaching](#) and [costly](#), leading to widespread shortages and price surges.
- **Clean energy technologies**—including batteries, solar panels, and electric vehicles—are critical for our economic and [national security](#). Despite this, [production](#) is [highly concentrated](#) in a few countries and limited in the United States. Given the [scale](#), scope, and [speed](#) of investments required, subsidies are a [foundational aspect](#) for optimal climate policy. Indeed, [industrial strategy](#), thoughtful regulations, and a commitment to good jobs can enable energy innovation, cost declines, and emissions reductions—while still supporting workers and communities. Investments in [clean energy](#) technologies serve a triple purpose: meeting the challenge of the [climate crisis](#) by [reducing domestic emissions](#), promoting [economic growth](#) by [investing in rapidly growing industries](#) of [the future](#), and supporting good jobs here in America.

With the incentives it is providing in semiconductors and clean energy, the Administration is taking strategic action in cases where markets on their own [have not delivered](#). We are unlocking the potential for these industries to thrive, while keeping costs low for families, using both supply- and demand-side investments. The Administration’s sector-based approach means that individual companies must work to succeed (or fail) on their own merits, allowing the market to do what it



does best—lowering costs, discovering new technologies, and uplifting successful business models.

C. Investing along the innovation to commercialization pipeline

Leading in semiconductors and clean energy requires investing across the [innovation pipeline](#)—from basic research to deployment at-scale. Even though basic research lays the foundation for [breakthrough](#) technologies that generate high [productivity growth](#) with significant [economic](#) payoffs, private returns are significantly [smaller](#) than the social returns, so private investors underinvest in basic research. The United States has long been a global leader in publicly funded basic research and science. The President’s investments include [\\$11 billion](#) in cutting-edge semiconductor research and [\\$1.5 billion](#) into Department of Energy infrastructure and national laboratories, among many others will further U.S. leadership in research.

We must also restore American leadership in development and deployment, which for too long has [failed](#) to keep pace. Commercializing novel ideas and scaling new technologies requires [resolving market failures](#) in development, demonstration, and deployment. [Evidence](#) indicates that frictions in financing inhibit early ideas from becoming usable—public investments along the commercialization pathway help new innovations become bankable and deployable at scale—while [demand uncertainty](#) around a nascent technology can prevent industries from acquiring the necessary financing to scale up. That is why this Administration is investing on *both* the supply- and demand-side, including enhanced loan authority for the Department of Energy’s [Loan Programs Office](#), a new [Greenhouse Gas Reduction Fund](#) at the Environmental Protection Agency, over 20 [new or modified tax incentives](#), and demonstration projects like [regional hydrogen hubs](#).



SIGNS OF SUCCESS

BUILDING A NEW EV CHARGING INDUSTRY

[Research shows](#) us that building out our country's electric vehicle (EV) charging infrastructure is a powerful way to encourage EV adoption—and, in turn, encourage EV production. Yet when President Biden took office, the United States had nearly [no role](#) in manufacturing the most advanced EV chargers. The President's plan changed that by investing [\\$7.5 billion](#) to build a national network of 500,000 EV chargers across the country. This funding came with requirements to build these chargers [in America](#) using high-quality American steel, iron, and components.

Since the President took office, private companies have been mobilized to invest in American manufacturing capacity for an industry that barely existed two years ago. At least [six companies](#) have announced plans to build their first U.S. manufacturing plants for EV chargers. As this industry develops, the President is also working with the private sector to shape the market to operate better for consumers. For example, [newly announced standards](#) provide reassurance that consumers will be able to plug any EV into federally-funded chargers and that they will be able to more easily find information about a charger's location, price, availability, and accessibility on mobile applications. This helps create a virtuous cycle of more demand and more affordable supply.



3. Middle Out, Bottom Up

The best way to invest is from the middle out and bottom up.

Too often in previous decades, policies focused on investing in those at the top, claiming the economy would grow and the benefits would eventually trickle down—despite overwhelming evidence to the contrary.

The President chose to take a different path. He vowed to rebuild from the middle out and bottom up because this is the most effective approach to deliver economic benefits to American workers, families, and consumers—economic growth that is strong *and* shared.

A. To succeed, we need to empower workers and create opportunity

Building an economy that is based on [clean energy](#), [robust infrastructure](#), and resilient [supply chains](#)—and ensuring that the benefits of that economy are shared—means helping connect American workers to good jobs across the full range of experiences and education levels. In order to recruit workers and build lasting, productive industries, employers must offer high-quality jobs—with strong wages and benefits. These high-quality jobs create a path to the middle class for workers and their families including for groups that have traditionally faced labor market [inequities](#) that have kept talent on the sidelines for too long. They also matter for a growing productive workforce. For example, paying fair wages has been shown to increase [productivity](#), [reduce turnover](#), and facilitate hiring and [retention](#). Unions play a key function in enabling the creation of high-quality jobs by helping with [training](#), and promoting [job quality](#), and on-the-job [safety](#). Success also depends on policies that expand access to care. Child care can boost [parental productivity](#) and [labor force participation](#), enable workers to pursue additional training, and reduce [turnover](#) for the [90 million](#) American workers with care responsibilities.

To empower workers and create high-quality jobs, Administration programs are designed to encourage job [quality](#), worker [empowerment](#), [fair pay](#), and training and [career pathways](#), with a [focus](#) on [including](#) historically [underrepresented](#) workers in high-quality jobs. The President’s policies seek to ensure that workers have opportunities to learn the skills necessary for success in these industries by



investing in the education system with a diverse set of high-quality options such as registered apprenticeships, community colleges, public universities, vocational programs, and trade schools. And the President’s economic agenda invests in child care through his [FY23 budget](#), which expanded funding for federal early learning and care programs like the Child Care and Development Block Grant program, his newly signed [Care Executive Order](#), and his [FY24 budget request](#), which proposes \$600 billion over 10 years to expand access to high-quality, affordable child care and free, high-quality preschool.

From construction workers and scientists to electricians and manufacturers, Americans of all backgrounds and all across the land will find opportunity in the economy that the President envisions. Indeed, a range of [external estimates](#) finds that the historic investments in infrastructure, clean energy, and semiconductors will create more than a million jobs for workers with a range of educational backgrounds in industries like manufacturing and construction.

B. To succeed, we must rebuild and strengthen local communities

Decades of disinvestment in our manufacturing communities have kept [economic opportunity](#) out of reach for [many Americans](#). President Biden is rebuilding the economy from the middle out and bottom up by investing in communities that had been hollowed out.

Place-based policies that create opportunities in economically underserved communities pay off with greater economic [benefits](#). One study estimates that the economic benefits of policies that add jobs in a given place are at least [60 percent](#) greater in “distressed” regions than in “booming” ones. Investments in expanding access to rural broadband, for example, promote [growth](#), [employment](#), and [education](#). An array of economic evidence also indicates that co-location—bringing multiple investments into communities—can reduce transportation costs and facilitate [positive spillovers](#). These [productivity](#) and [other benefits](#) arise because [clustering](#) promotes the development and sharing of new ideas, knowledge, technology, and physical infrastructure.

The President’s economic plan revitalizes communities often ignored by policy, creating the conditions for industries and communities to thrive. It makes the largest ever [investment](#) in environmental remediation, creates a new federal



program to [reconnect communities](#) previously separated by discriminatory highway policies, and provides funding for affordable, high-speed [internet](#) for all Americans. It includes bonus [tax credits](#) for legacy coal, oil, natural gas, and power plant [communities](#) and [authorizes investments](#) to [expand](#) the [geographic](#) and institutional diversity of [research institutions](#). And, the President’s plan helps companies benefit from the positive spillovers from investing in the same community through regional efforts like the [Tech Hubs program](#), the [Recompete program](#).

C. To succeed, we must increase resiliency within and across industries and supply chains

The Covid-19 pandemic revealed that when supply chains for critical goods are concentrated overseas, it can increase the risk of supply shocks for American consumers and businesses. U.S. consumers bore the brunt of [sharp price hikes](#), and there was extensive media coverage of product shortages, including for [household appliances](#), [medical supplies](#), and much [more](#). This fragility was costly to [businesses](#) as well—especially [smaller businesses](#). Semiconductors, which are a key input in areas ranging from cars to fighter jets, are vulnerable to shocks, as we saw during the pandemic. Clean energy supply chains are also vulnerable to shocks; China now controls more than [80 percent](#) of key parts of the critical mineral and electric vehicle battery supply chains, effectively monopolizing two key global energy markets.

To build an economy that supports stable economic growth, where critical industries like manufacturing of semiconductors and clean energy technology can thrive, we need to fortify American supply chains to mitigate disruptions and protect national security. As we invest in competitive industries and resilient supply chains, the goal is to de-risk and diversify—not decouple—from China. When it comes to the U.S.-China relationship, economic resilience and national security go hand-in-hand. We continue to have significant bilateral trade, but we also need to build more secure value chains and ensure appropriate safeguards.

The federal government has already completed extensive reviews of the country’s predominant supply chain vulnerabilities and taken major steps to address them—such as with the new [Advanced Manufacturing Production Credit](#) to manufacture



components of clean energy technologies domestically. The [Commerce Department](#) is building on this with historic incentives to produce leading-edge semiconductors domestically. In addition, the Administration is making much needed updates to the implementation of the [Buy American Act](#), ensuring that federally funded infrastructure projects help to strengthen American workers and manufacturers and bolster the U.S. industrial base. Across the board, the President's investments foster economy resiliency by reducing geographic concentration, expanding domestic capacity, and diversifying supply chains at home and abroad.

D. To succeed, we must ensure fair competition

The evidence is clear that new small and medium-sized businesses are drivers of [innovation](#). Yet when a few firms (or one single firm) [dominate](#) a market, they can [stifle](#) and [stymie](#) disruptive startups and other new businesses. Dominant firms facing [little pressure](#) from agile, innovative challengers also have little [incentive](#) to better serve consumers or to offer higher quality jobs to workers. Promoting competition means creating a fairer business environment where American entrepreneurs and small businesses with a good idea are once again given the chance to succeed and where workers have better options. Limiting market power is good for [consumers](#) and [workers](#), lowers [inequality](#), and creates room for [new ideas](#), new [businesses](#), and new ways of doing business.

This is why the President put forth his [Competition Executive Order](#) in 2021. To help small businesses innovate and grow, the Administration is expanding access to [financing](#) for [small businesses](#) and addressing industry-specific challenges, such as promoting [fair standards](#) in the electric vehicle charging industry. And to bolster opportunities for American workers and small businesses, the Federal Trade Commission has proposed a rule to ban employers from imposing [non-compete clauses](#) in labor contracts. Further, the Administration is ensuring more equitable treatment of American workers, retailers, and farmers through actions like the [Ocean Shipping Reform Act](#).



E. To succeed, we must invest alongside our global economic allies and partners

President Biden’s middle-out and bottom-up approach to economic policy is a positive-sum game—we and our friends and allies have much to gain from working together to expand production of semi-conductors and clean energy technologies because, ultimately, these technologies must be deployed everywhere. Our administration has already forged agreements to harmonize these clean energy incentives with partners around the world, and will continue to look for opportunities to create win-win cooperative arrangements to build resilient supply chains.

To achieve growth that is strong, stable, and broadly shared, the President is also working with our partners to align our approaches—with [Critical Minerals agreements](#), [incentives dialogues](#), and [supply chain ministerial meetings](#). We are negotiating the [Global Arrangement on Steel and Aluminum](#) with the European Union in order to tackle both emissions intensity and over-capacity. In addition, we are pursuing new regional economic initiatives in the [Indo-Pacific](#) and [Western Hemisphere](#) to help hasten the clean-energy transition and ensure more resilient supply chains for critical goods and inputs. We recognize that success requires working with allies and partners to ensure they are building resilience and capacity too.

F. To succeed, we must overcome barriers to scaling production

To succeed, the President’s agenda includes a range of new federal coordination strategies, such as “[Dig Once](#),” to ensure only one excavation is needed for transportation, electrification, and broadband projects at a particular site. We have also conditioned [transportation grants](#) on equitable and efficient land-use policies, and expanded the use of [project labor agreements](#) so employers work alongside unions.

In addition, it is vital to identify and navigate challenges, such as those associated with [permitting requirements](#). We have issued [updated guidance](#) on environmental reviews to help reduce timelines, begun the process of designating [National](#)



[Interest Electric Transmission Corridors](#) to accelerate the deployment of high-capacity transmission, and worked to [hasten](#) the rate at which transmission infrastructure is permitted. The Administration has also invested \$1 billion in key federal permitting agencies to increase staff capacity and incorporate new technologies.

These reforms *do not* come at the expense of equity or inclusivity. For example, these changes were made as the Council on Environmental Quality restored [community safeguards](#) for environmental review. This ensures that the federal government works with communities to minimize environmental and public health costs associated with building new projects. And the Administration has called on Congress for sensible, bipartisan [permitting reform](#) to ensure that projects are built on-time, on-budget, and to-scale, all while [improving community engagement](#) and minimizing environmental harm.

SIGNS OF SUCCESS

MOBILIZING PRIVATE CAPITAL

A core pillar of the President's Investing in America agenda is using public investments to unlock private investments and grow the economy from the middle out. On the demand-side, the President's plan makes it cheaper for consumers to buy an electric vehicle or make energy-efficient home upgrades. Meanwhile, on the supply side, incentives like technology-neutral [tax credits](#) and production tax credits for advanced manufacturing will make it cheaper for companies to develop and manufacture clean energy technologies. Funding for offices like the [Department of Energy Loan Programs Office](#) will also [enable clean energy projects](#) to more readily [secure capital](#) from private financing institutions, hastening the rate at which we deploy new technologies.

In the months since the 2022 passage of historic investments in the U.S. industrial base, we are already seeing indicators of success. For example, private firms have announced more than [\\$200 billion](#) in large-scale semiconductor and clean energy projects, including [over \\$100 billion](#) for U.S. battery manufacturing and supply chains—enough to power 10 million EVs each year. Meanwhile, over \$5 billion in new U.S. solar investments have been [announced](#) in states ranging between California, Minnesota, Georgia, and New York—enough to power almost eight million homes a year.



4. Conclusion

President Biden came to office determined to both grow the economy and ensure that growth benefits Americans across the country. Core to Bidenomics are his plans to rebuild the American economy by investing more at home in foundational industries and infrastructure, empowering American workers, and promoting competition. Thanks to the historic legislation secured by President Biden, we have seen the creation of more than 13 million jobs—including nearly 800,000 in manufacturing—and manufacturing construction increased by nearly 100 percent in two years. The Administration will continue to track key indicators to measure our progress and navigate possible challenges. Our work is not yet over, but the President’s investments are already laying the foundation for generations of stable, sustainable, shared economic growth to improve the lives of all Americans.

SIGNS OF SUCCESS

GROWING BROADBAND INFRASTRUCTURE

Economic research has shown that expanding broadband [access](#) enhances [productivity](#), [boosts economic growth](#), and makes societies more [resilient](#) to global disruptions. Yet despite its importance, manufacturing of key broadband components has become geographically more concentrated over the course of the past two decades. Between 2000 and 2017, China went from supplying just three percent to [nearly one third](#) (31 percent) of the world’s combined imports of fiber optic cables—the cables that help deliver broadband to end users. The President’s Internet for All Initiative changes that with a [\\$65 billion](#) investment in broadband access and infrastructure—infrastructure that will be built using [American-made materials](#) like fiber optic cables.

There are already signs of success. Companies like Corning and CommScope have invested nearly [\\$550 million](#) to grow American manufacturing capacity in broadband fiber in what they have said is a direct [response](#) to new “[Buy America](#)” requirements. These investments include a recent [\\$47 million](#) expansion of CommScope’s capacity in North Carolina and a new Corning facility in [Arizona](#)—projects that are also expected to create at least 500 new jobs for local communities.