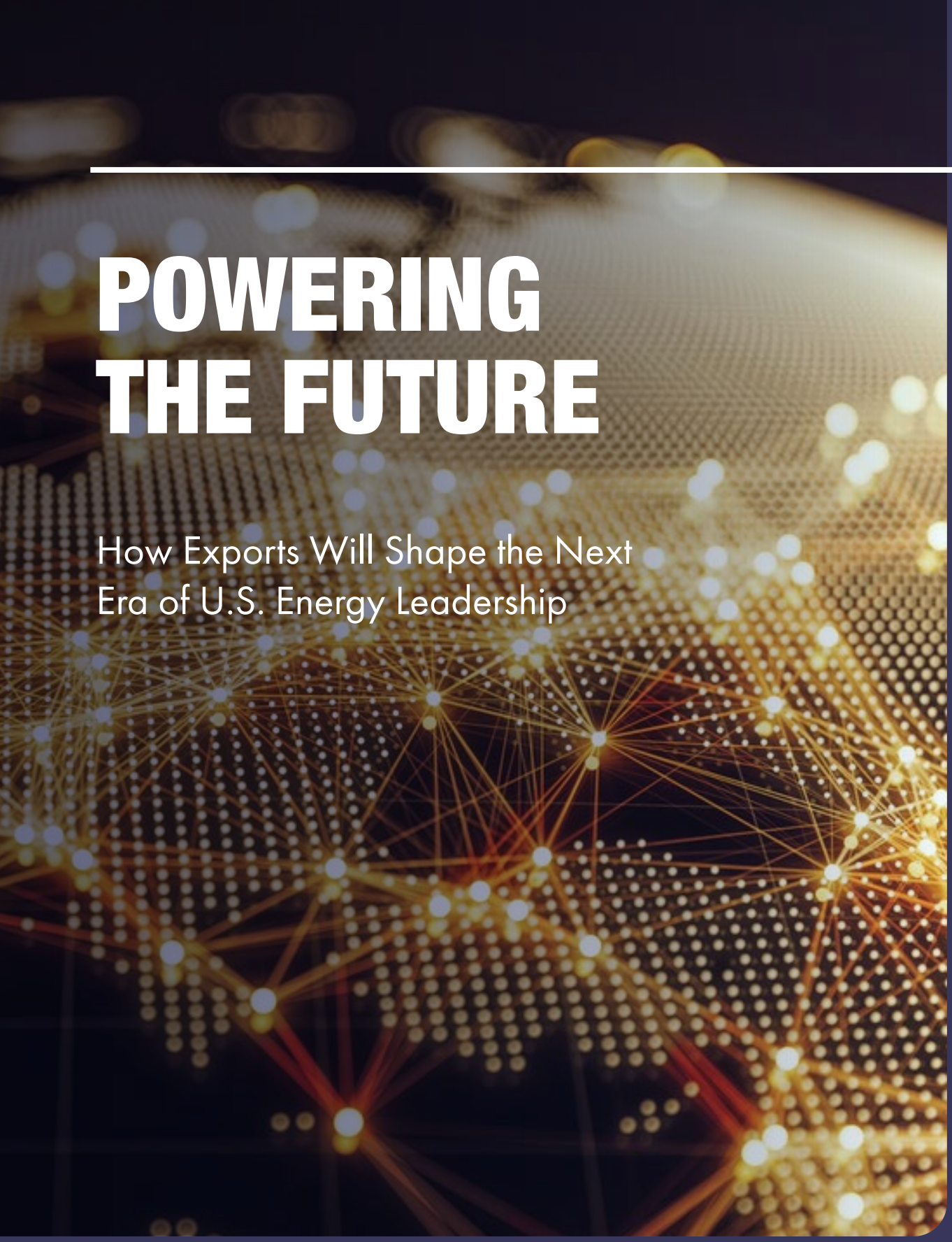

POWERING THE FUTURE

How Exports Will Shape the Next Era of U.S. Energy Leadership

Catrina Rorke
Dan Giamo

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CLIMATE LEADERSHIP COUNCIL

About

The **Climate Leadership Council (the Council)** is a nonprofit think tank dedicated to championing the most effective, fair, and lasting climate solutions. The Council produces groundbreaking research, educates policymakers, and works with a broad set of stakeholders to advance a common goal: meaningfully reduce global emissions while strengthening our economy. It is home to the Center for Climate & Trade.

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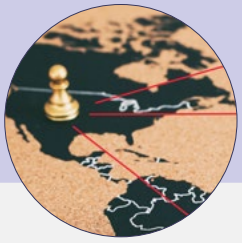
Key Takeaways

The U.S. has traditionally been a global energy leader, but it faces mounting pressure from evolving energy markets, shifting global economic dynamics, and increasing state-backed competition.

Despite the U.S.'s leadership in traditional energy exports, such as oil and natural gas, it is being significantly outcompeted by China in the advanced energy technologies that are powering an increasing portion of global energy demand. This is especially true in fast-growing, energy-hungry emerging economies, where China out-exports the U.S. by over 9-to-1.

American innovators are developing the next generation of advanced energy technologies. They need access to global markets to crowd in private capital, incentivize further innovation, secure supply chains, and scale deployment.

To incentivize innovation and better enable U.S. firms to compete with state-backed competitors, the U.S. government must help level the playing field through a well-coordinated, whole-of-government international investment and export strategy.



A range of federal agencies—including State, DFC, EXIM, and many others—exist to advance commercial diplomacy, mobilize investment, and accelerate exports, but they must be fully empowered, granted greater flexibility, and be better coordinated.

Efforts to level the playing field for American firms, boost investment, and accelerate exports will have economic, geopolitical, and security benefits. A greater U.S. presence in the new energy marketplace will also lower global emissions. When U.S. firms compete globally on fair terms, they unleash the most powerful innovation engine in the world—one capable of developing and deploying cleaner, more affordable, and more secure energy solutions at scale.

Introduction

For more than a century, the United States has drawn immense economic strength from its position as the world's largest economy—a role sustained in no small part by its global energy leadership. That leadership, and the broader economic primacy it supports, is now being tested by a rapidly evolving global landscape. Emerging economies are expanding, market preferences are shifting, and state-backed competition is intensifying. While the U.S. continues to lead in traditional fuels such as oil and gas, it lags in advanced energy technologies—including renewables, storage, and electrified transportation—conceding market share to competitors like China, which exports nine times more advanced energy technologies to fast-growing, energy-hungry markets. China's pole position is due not only to its domestic industrial policy but also to intense overseas support through initiatives like the Belt and Road Initiative and Global Development Initiative, which secure market access, create barriers to entry for competitors, exert control over supply chains, and extend the Chinese Communist Party's (CCP) geopolitical influence.

American leadership in global energy will hinge on its ability to out-innovate competitors and ensure that groundbreaking technologies reach fast growing global markets. Many of the advanced energy solutions now enriching foreign economies were pioneered in U.S. laboratories and firms—from nuclear power and solar photovoltaics to modern energy storage—but the U.S. has since lost manufacturing and export ground. Today, American innovators are developing the next generation of advanced nuclear systems, thin-film solar cells, alternative storage chemistries, and higher-efficiency industrial technologies that could leapfrog current technologies dominated by rivals. Realizing this potential requires assured access to energy-hungry emerging economies, secure supply chains for critical inputs, and a level playing field against state-backed rivals.

Meeting this challenge demands a whole-of-government international investment and export strategy that can level the playing field for U.S. firms. Empowering and aligning federal agencies—such as the State Department, Development Finance Corporation (DFC), and Export-Import Bank (EXIM)—to strengthen commercial diplomacy, mobilize capital, and accelerate the global deployment of U.S. technologies will expand American influence, secure strategic supply chains, and reinforce economic leadership. Fortunately, we have a generational opportunity to expand and optimize the federal programs that engage foreign markets through commercial diplomacy, international investment, and export promotion. By acting now, the United States can ensure its economic and energy leadership endures, driving growth at home and strengthening its position abroad.

Confronting Headwinds to U.S. Global Leadership

The United States has been the world's largest economy for nearly 135 years and the world's leading exporter for much of the 20th century.[1,2] It has benefited tremendously from its dominant role in international commerce. U.S. outbound investment and exports support millions of American jobs, generate trillions of dollars for American businesses, and afford the U.S. geopolitical influence and national security. It is in America's essential national interest to maintain primacy in the global economy.

Of particular importance is preserving American global leadership in the energy sector. Energy is foundational to all other economic growth and absolutely vital to development.[3] How countries choose to power themselves—and which countries they partner with in the energy trade—will have a defining impact on the future of the global economy, geopolitics and security, and the global climate.

The U.S. is a leading exporter of energy technologies, equipment, and fuels. Future energy dominance, however, is not assured. Rapid changes in the global economy, energy markets and technologies challenge American primacy: global consumers are seeking ever cheaper, more flexible, and more secure sources of energy; global economic patterns are shifting and emerging economies will represent 65% of global economic growth over the next 10 years; and state-backed enterprises are reshaping the rules of global competition.[4]

These headwinds are best demonstrated by the commercial rise of the People's Republic of China. The CCP has established a dominant position in the manufacture of a range of energy technologies and inputs; leveraged more than $1 trillion of spending through massive government-led investment and export programs, such as the Belt and Road Initiative (BRI) and the Global Development Initiative (GDI), to secure vital inputs for and open emerging markets to Chinese firms; and deploys a range of tactics that provide Chinese firms with an unfair advantage in winning contracts and selling goods. As a result, China now out-exports the U.S. to the world's fastest growing emerging economies by more than 2-to-1 and is converting those trade partnerships into commercial, cultural, and security ties that challenge U.S. interests.[5]

The U.S. has a unique tool to halt and reverse these trends to retain a dominant position in energy and trade for years to come—the innovation engine that is the American private sector. While U.S. inventors pioneered the advanced energy technologies that the world is now buying, they do not presently enjoy a dominant position in manufacturing and exporting them. The good news: American innovators are currently developing the next generation of advanced energy that can leapfrog the competitors selling today's technologies. The challenge is implementing a comprehensive strategy that ensures American firms are positioned to build and sell these solutions into the future.

THE GOOD NEWS

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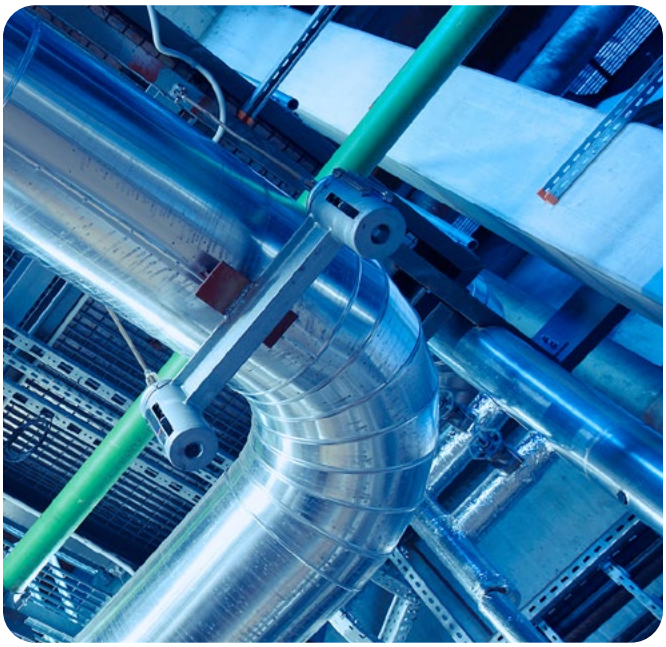
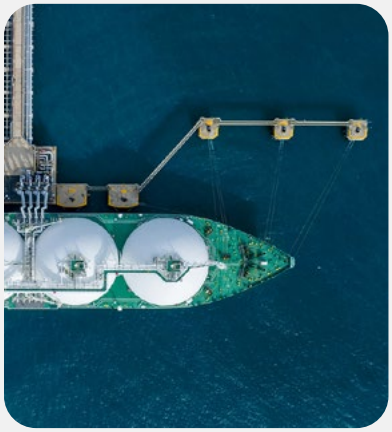


A key element of this strategy is increased government action to level the playing field. Given the immense challenge of opening and accessing new markets in the face of state-backed competition, there is an irrefutable role for policies that expand U.S. access to global markets, especially those in energy-hungry emerging economies, to crowd in private capital, incentivize further innovation, secure supply chains, and scale deployment.

Government action to directly confront growing competitive headwinds will support millions of American jobs and trillions of dollars of income, and set up the U.S. to win the 21st century.

Greater market access for American goods and technologies is not just a commercial imperative—it's essential to lowering global emissions. The full suite of technologies needed to successfully decarbonize the global economy do not yet exist at commercial scale.[6] We need innovation on top of innovation, driven by fierce competition. When U.S. firms compete globally on fair terms, they unleash the most powerful innovation engine in the world—one capable of developing and deploying cleaner, more affordable, and more secure energy solutions at scale. But that engine can only be fully engaged if American companies are assured fair market access, a level playing field, and secure supply chains.

Growing from strength: energy exports



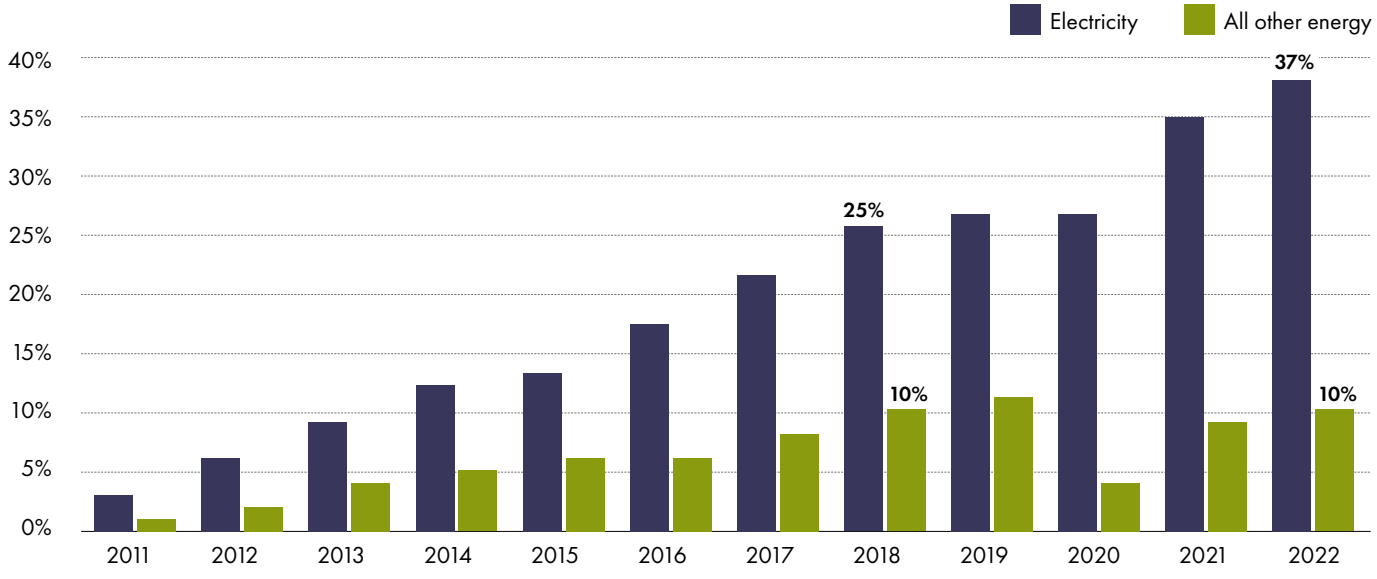
Energy is fundamental to economic development, and the U.S. is a large and influential player in global energy markets. The U.S. is the world's largest energy exporter, exporting billions of dollars of fuels, technology, and support services to overseas markets annually. Its continued lead in energy exports, however, is far from assured, as the U.S. faces headwinds from shifting market preferences and competitors using a full suite of policy tools to wrest market share from the U.S. To maintain and grow American global energy dominance, it is essential to understand, anticipate, and move to where global markets are heading as they undergo profound change.

ENERGY MARKETS ARE SHIFTING TOWARDS ELECTRICITY

Traditional energy sources like natural gas, oil, and coal continue to have strong global demand, making up the bulk of global energy consumption. However, energy trends in recent years indicate that the energy market is undergoing a significant demand shift. Markets of all sizes are increasingly prioritizing energy sources that are less dependent on fuel imports and more insulated from volatile geopolitical tensions—and by extension, less emissions intensive.

Increasingly, this shift is preferencing electrification. From 2010 to 2022, global electricity consumption grew almost four times faster than the use of all other forms of energy.[7] Countries have prioritized electrification to increase household energy access, increase flexibility in transportation and industry, and support the rapid expansion of artificial intelligence and data center services.

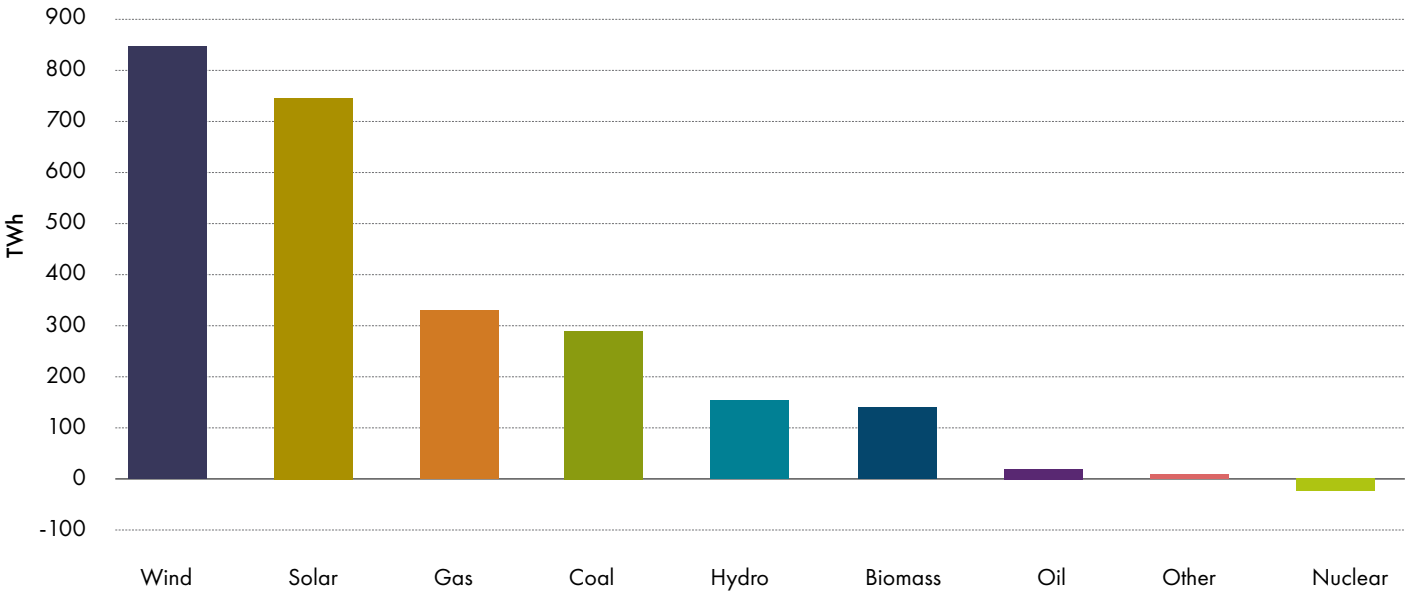
CHANGE IN GLOBAL ENERGY CONSUMPTION FROM 2010



Source: IEA

And within the electricity sector, global trends indicate that when market participants add new electric capacity to their grids, they are preferencing renewable sources. Currently, about 60% of global electricity generation is powered by fossil fuels, followed by 31% from renewables (hydropower, wind, solar, and biomass), and 9% from nuclear.[8] However, this mix is rapidly changing. In the five-year period from 2018-2022, nearly three of every four terawatt hours of generation added to electrical systems worldwide came from a renewable source. These changes were driven almost entirely by generation from solar photovoltaic and wind, which increased by 134% and 66%, respectively.

NET CHANGE IN GLOBAL ELECTRICITY GENERATION BY TECHNOLOGY (2018-2022)



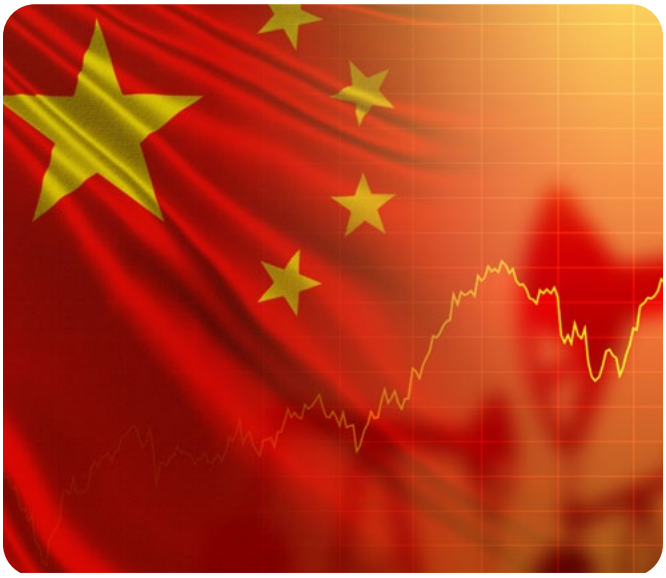
Source: IEA

While environmental concerns, including climate mitigation, may partly explain these trends towards lower emitting sources, the predominant justification is grounded in energy security, energy independence, and cost. Today, 74% of the global population lives in countries that are net importers of fossil fuels.[9] Just as the United States has spent decades successfully pursuing greater energy security to protect its economy from the volatility and supply shocks of global fuel markets, other countries around the world striving to do the same.

For example, Russia's February 2022 invasion of Ukraine disrupted natural gas supplies in Europe and had knock-on effects that more than doubled LNG prices in Asia.[10] The U.S. played a critical role in stabilizing global energy markets with LNG exports. Simultaneously, however, countries around the world doubled down on efforts—like the EU's REPowerEU initiative and Japan's Green Transformation initiative—to expand electricity capacity with domestically available natural resources, reduce reliance on imported fuels, and insulate their economies from ongoing geopolitical upheaval and further economic risk.[11]

All the while, the costs for renewable energy sources have fallen dramatically—as much as a 90% cost reduction for some technologies over the past 15 years.[12] And where the intermittency of these resources can be paired with storage, flexible demand, or adequate baseload power sources fueled by sources like natural gas, nuclear, biomass, or coal, they have become the lowest cost option globally.[13] These trends are a key driver of investment in renewable energies outpacing investment in fossil energy by nearly 2-to-1 worldwide.[14]

[Shifting] global energy preferences compromise continued American energy dominance. In advanced energy exports, including renewable electricity sources, China out-exports the U.S. by over 4-to-1. And in exports to the fastest growing international markets, China out-exports the U.S. by over 9-to-1.



CHINA IS DOMINATING FAST-GROWING ADVANCED ENERGY MARKETS & SUPPLY CHAINS

While the U.S. is an indisputable global leader in traditional fuel markets, producing more oil and exporting more gas than any other nation, it does not enjoy the same dominant position in rapidly growing advanced energy technologies. As a result, the shift in global energy preferences compromises continued American energy dominance. In advanced energy[a] exports, including renewable electricity sources, China out-exports the U.S. by over 4-to-1. And in exports to the fastest growing international markets, China out-exports the U.S. by over 9-to-1.[b] The U.S. will only be the dominant energy global player of the future if it has a dominant position in advanced energy as well as traditional sources.

China's strong position in advanced energy technologies is the result of a multi-decade CCP strategy to support domestic manufacturing capacity in solar, wind, battery, nuclear, and other energy technologies with an industrial policy that leveraged taxes, tariffs, and domestic investments.[15] The CCP paired its focus on building domestic manufacturing with efforts to cultivate overseas markets, primarily through its BRI. From 2013-2022, energy sector investments accounted for nearly 40% of all investments under the BRI and an increasing portion of these investments are in advanced energy infrastructure.[16] Cornering the global advanced energy market has produced tremendous economic benefits for the CCP: advanced energy sectors now account for 10% of China's GDP and 26% of its GDP growth.[17]

Part of the CCP's efforts to corner the global market for advanced energy technology manufacturing includes establishing control of the supply chains needed to manufacture them, most notably critical minerals. China currently controls more than 60% of global critical mineral production and 85% of global processing. The United States, by contrast, remains heavily dependent on Chi-

a Advanced energy technologies include those related to electricity infrastructure, nuclear power, carbon capture, renewable energy, electric vehicles, energy storage, heat pumps, and hydrogen.

b Given the close relationship between the U.S. and the Mexican economies, this statistic captures trade to emerging markets outside of North America.

nese imports for many of these inputs—and the CCP has not hesitated to use this leverage. In recent years, China has imposed export restrictions on key materials including graphite, gallium, and rare earth elements, applying direct economic pressure on the U.S. and disincentivizing U.S. firms from innovating in energy technologies that require critical mineral inputs.

Like its strong position in manufacturing and exports, China's critical mineral supply chain dominance is the result of decades-long industrial policy utilizing a range of tools, including international investment. Since the BRI's inception, mining has been a sector of major focus as China addresses its own upstream supply chain vulnerabilities. In 2024, mining was the second-largest BRI sector after energy, accounting for nearly 18% of all BRI engagement at $21 billion.[18] Over 90% of the BRI's investment in the mineral sector was for upstream mining projects to secure access to minerals that are unavailable or more difficult to extract within China's borders.[19] Beyond direct investments in mining, China's broader economic engagement with partner countries deepens commercial ties and indirectly strengthens its influence over energy technology and critical mineral supply chains.

REINVESTING IN AMERICAN ENERGY DOMINANCE

Many of the technologies that are enriching the Chinese economy were pioneered in U.S. research institutions and private firms. The U.S. energy sector has been the world's most innovative and dynamic, delivering market-shifting breakthroughs like the first successful demonstration of fracking,[20] the first nuclear energy reactor,[21] the first commercially viable solar panel,[22] the first utility scale energy storage system,[23] and transformative innovations in energy efficiency.[24] Today, U.S. firms continue to innovate in developing energy technologies like geothermal, advanced nuclear power, next-generation thin-film solar cells, alternative storage technologies, higher-efficiency industrial technologies, power plants and industrial facilities fitted with carbon capture and sequestration technologies, alternative hydrogen production routes, additive manufacturing, and countless other areas.

It is this legacy of innovation that will allow the U.S. to play a dominant role in global energy exports even as the global economy increasingly shifts towards advanced energy technologies. But this will only happen if American innovators, and the investors enabling them, have reasonably assured access to the fastest-growing global markets and secure supply chains for critical inputs. State-backed Chinese firms will continue to dominate these markets—strengthening commercial, technological, and geopolitical ties with every transaction—unless U.S. policymakers level the playing field to equip U.S. firms with more tools to go head-to-head with competitors, especially in fast-growing, energy-hungry emerging economies.

There are profound global emissions impacts at stake, too. If global markets are locked into the technologies available from an increasingly monopolistic player, global innovation for better and cleaner technologies will slow. Innovation is motivated by competition. And to advance economic, security, and environmental priorities, we need American firms competing in advanced energy solutions in global markets—not just to win contracts, but to push the boundaries of what cleaner technology can deliver.

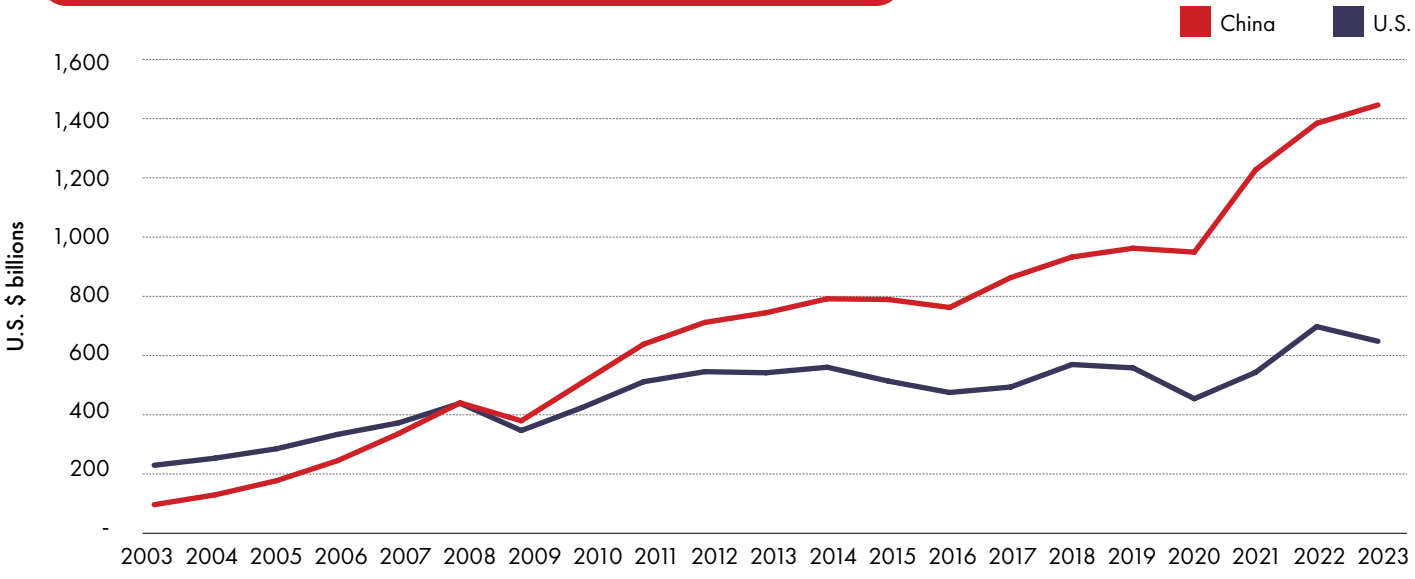
National policies to promote U.S. international investment and exports unlock key economic and security benefits

The challenges the U.S. faces in international energy markets echo through the rest of the economy as nations compete for market share in a rapidly shifting, increasingly multipolar world. U.S. policymakers can confront those global economic headwinds and deliver key benefits to economic growth, geopolitical influence and national security, supply chain security, and reduced global emissions.

ENHANCED GLOBAL COMPETITIVENESS LEADS TO ECONOMIC GROWTH

International exports have benefited the American economy tremendously, bringing in over $3 trillion annually and supporting more than 10 million jobs. Although exports are still an area of U.S. strength, in recent decades, China has eclipsed the U.S. and now exports 67% more goods than American firms.[25] What's more, China is vastly out-competing the U.S. in emerging economies, turning the tables on a former area of American strength. In 2003, the U.S. out-exported China to emerging economies by 2.5-to-1. Twenty years later, China out-competes the U.S. by 2.2-to-1. Over that period, China's economy soared and lifted hundreds of millions of its citizens out of poverty.[26]

TOTAL EXPORTS TO EMERGING ECONOMIES, U.S. AND CHINA



Source: Observatory of Economic Complexity

China's rise to export dominance is the result of decades of policy choices made by the CCP, blending domestic industrial strategy with aggressive government-led and government-supported international investment and export programs. The CCP has leveraged its investments to create, open, and win markets in emerging economies by negotiating agreements that give Chinese firms preferential market access; promoting Chinese standards and technologies that lock in operation, maintenance, service, and export opportunities for Chinese companies; supporting infrastructure projects designed to facilitate trade with China; and offering financing that includes favorable terms for Chinese companies.[27]

Massive state support across the full life of investments—commercial diplomacy, project preparation, financing, construction, and maintenance— has given Chinese firms a significant competitive advantage in emerging economies.

China isn't acting in a vacuum; other countries are also leveraging international investment programs to compete in the global economy. The Gulf States are using the $12 trillion under management in their sovereign wealth funds and development banks to invest globally and diversify their domestic economies.[28] South Korea's Export-Import Bank has recently added a development finance arm and is investing in projects across South Asia, such as digital infrastructure in India.[29] The European Union launched the Global Gateway, which aims to mobilize $300 billion to support digital, energy, and transportation infrastructure in developing countries, including $150 billion in Africa alone.[30]

The U.S.'s economic strength is driven by its market economy that allows private sector actors to compete, innovate, and thrive. However, in the face of growing competition supported by governments across the world, American firms are experiencing a growing disadvantage on the world stage and especially in emerging economies. It is essential that the U.S. government level the playing field to allow American firms to compete fairly against state-back competition.

INTERNATIONAL COMMERCE CULTIVATES GEOPOLITICAL INFLUENCE AND BOLSTERS NATIONAL SECURITY

The American private sector has long served as an informal, potent tool of American influence. For example, during the Cold War, the global expansion of iconic American companies such as Coca-Cola, McDonald's, and Levi Strauss not only opened markets but also cultivated pro-Western sentiment and embedded American norms in strategic regions—even in places where formal diplomatic leverage was limited.[31]

The geopolitical benefits of commercial relationships come from building lasting economic interdependencies, fostering people-to-people diplomacy, and creating a greater surface area for government-to-government engagement. Although this has been an area of U.S. strength, that advantage is being eroded by international competitors embracing an increasingly government-centric form of commercial diplomacy. Expanding global access to American goods and financing through investment and export gives people around the world the ability to choose American, granting them access to American innovation and robust capital markets while enhancing the soft power of the U.S.

The national security advantages of strong international commercial ties can perhaps best be seen in the CCP's leveraging of its investment programs to establish an expanded military footprint along key maritime routes. China leveraged significant BRI investments, including a $350 million port commercialization project, to open its first ever overseas military base in Djibouti along the Red Sea and proximate to the Suez Canal.[32] Similarly, through its China-Pakistan Economic Corridor project, China invested in a deepwater port project in Gwadar, Pakistan. Although initially billed as a purely commercial endeavor, the port is reportedly a dual use facility and can function as a Chinese naval asset near the Strait of Hormuz shipping lanes.[33,34] The U.S. and its allies, concerned by the security implications of a Chinese military along such prominent maritime and oil trading routes, were unable to deter the CCP's expansion.

The U.S. enjoys a much larger network of overseas military facilities than China. As the CCP's overseas ambitions increase, however, it will continue to use its extensive economic footprint to expand its military reach and political influence. Emerging economies may find themselves choosing between a security relationship with China or with the U.S.

CASE STUDY

HUAWEI'S GLOBAL MARKET PROLIFERATION

A particularly potent tool available to the CCP is the Chinese telecom giant Huawei. Its global rise offers a powerful case study in how state-backed investment and export policy can reshape markets, deepen geopolitical influence, crowd out competitors, and impact national security. Though Huawei operates in the telecom sector, its model highlights the broader risks the U.S. faces in other critical industries—including energy—as it competes with China for global economic leadership.

Huawei is an engine of Chinese commercial diplomacy. It operates in over 170 countries and dominates 5G infrastructure in much of the world. Its success is due, in part, to significant support from the CCP, which has aided Huawei in entering markets by providing policy support and lines of credit through state-owned banks, extending credit to projects that buy Huawei systems in overseas markets, and securing preferential treatment from local governments.[35] The resulting commercial relationships create political leverage and technological dependence that erode U.S. influence, empower authoritarian regimes, and enmesh Chinese interests in the operations of foreign governments. There are numerous examples of this in Africa alone:

- **Uganda:** Huawei engineers directly aided the government to surveil the U.S.-backed opposition leader.[36]
- **Zambia:** Huawei technicians assisted the government in accessing the phones and accounts of opposition bloggers, leading to their arrest.[37]
- **Burundi:** Huawei has used their technology to block access to media outlets critical of the government.[38]

Huawei is also an example of how the proliferation of a company backed by the CCP can pose a direct threat to U.S. commercial and national security. Intelligence and law enforcement agencies have declared Huawei a national security threat due to its potential as an espionage tool. American firms and agencies must exercise caution engaging in markets where Huawei infrastructure is embedded. Dual-use technologies and sensitive intellectual property risk being exposed through even indirect contact with Huawei-connected networks.[39] Huawei's continued global proliferation—driven by state-backed investment—complicates U.S. participation in many of the very markets where global demand and geopolitical competition is highest.

INVESTMENT AND TRADE HELP SECURE SUPPLY CHAINS

As adversaries and competitors leverage supply chains for their national advantage, the U.S. must recognize how government policy can be used to ensure access to key goods like critical minerals, telecom technologies, machinery, and advanced computing equipment. International investment and export promotion can be effective tools in cultivating reliable and secure alternative supply chains through integrated commercial and diplomatic ties with trusted partners. International competitors know this, perhaps especially the CCP.

This paper has already discussed how the CCP has used policy levers to gain and secure control of the critical mineral inputs needed for advanced energy and other technologies. China has also leveraged its dominant position in other supply chains to advance its interests.

For example, China is the largest commercial drone manufacturer and exporter. In late 2024, China announced export restrictions on drones and drone components to exert leverage—to the benefit of Russia—in the war in Ukraine. Its export restrictions disrupted supply chains for U.S. and Ukrainian drone warfare; at the same time, China has reportedly provided drone components to Russia with the aim of prolonging the war.[40] The U.S. has invested $1.5 billion

in funding to ramp up Ukrainian drone manufacturing and insulate the war effort from Chinese interference.

China is also the largest manufacturer of cranes installed at maritime ports worldwide. Ports are essential infrastructure—and vulnerable to monopolistic control by the CCP. A 2024 study by the U.S. House Committee on Homeland Security and the Select Committee on the CCP identified that 80% of ship-to-shore cranes at U.S. ports were built by a Chinese state-owned military contractor and are subject to ongoing real-time monitoring. In their efforts to identify suitable alternatives, the committees identified no domestic supply chains that can substitute for Chinese control and found that alternative suppliers in market-oriented economies rely on Chinese-controlled supply chains.[41]

As the U.S. looks to address its critical supply chain vulnerabilities through reshoring and diversification, it must also recognize how competitors have strategically deployed international investment to shape and control global supply networks to their advantage. Strengthening America's own supply chain security will require a deliberate effort to align investment and export strategies with broader national security and economic objectives.

A WHOLE-OF-GOVERNMENT U.S. STRATEGY

The U.S.'s long history as a global economic powerhouse, especially in the energy sector, has produced tremendous economic and security benefits for Americans. It is in the U.S.'s vital national interest to maintain and build upon its global economic and energy dominance. The U.S. faces mounting headwinds, however, as global market dynamics shift and competitors leverage robust state intervention to secure market share in rapidly growing emerging economies.

To incentivize innovation and better enable U.S. firms to compete with state-backed enterprises, the U.S. government must help level the playing field through a well-coordinated, whole-of government international investment and export strategy.

THIS STRATEGY MUST:

1. **Fully leverage commercial diplomacy build stronger commercial relationships and drive deal-making;**
2. **Mobilize investments in key regions and sectors to open markets and secure supply chains; and**
3. **Accelerate exports globally, especially those to the most rapidly developing markets.**

Fortunately, we have a range of tools available. There are over a dozen federal departments and agencies with authorities to leverage commercial diplomacy, mobilize investments, and accelerate exports, most notably the Department of State, the U.S. International Development Finance Corporation (DFC), and the Export-Import Bank of the United States (EXIM). To achieve results at scale, these and other agencies must be fully empowered, afforded greater flexibility, and better coordinated. Reimagining and adequately resourcing these agencies with tools and processes to make them a potent partner for American innovation won't happen all at once. It is essential, however, that efforts to improve the U.S. investment and export apparatus begin as soon as possible. America's competitors are not waiting for us.

Conclusion

A robust federal commercial diplomacy, investment, and export strategy is indispensable to equipping the most innovative force in history—the U.S. economy—to leapfrog the competition, beat out state-backed enterprises, and secure American economic and energy leadership for many decades to come. In turn, global access to transformative technologies designed and built by American firms will ensure that global development is consistent with lower global greenhouse gas emissions. And that same potent federal toolkit will also deliver transformative benefits to broader domestic economic growth and job creation, American geopolitical standing and national security, and more robust, resilient supply chains across the economy. To deploy the innovations of tomorrow, the U.S. must reassert global leadership, strengthen government tools, and build commercial ties today.

Endnotes

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