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THE CASE FOR EXPORTS

America's Hydrocarbon Industry Can Revive the Economy and Eliminate the Trade Deficit

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Executive Summary

The world has changed since the passage of the 1975 Energy Policy and Conservation Act, a law that set the tone for energy policy for nearly a half-century. Technology and demographics have eviscerated old ideas of limits and import dependency. Given the new abundance, the United States now has the opportunity to become a major energy exporter.

America is now the world's fastest-growing oil-and-gas-producing region and has the capability to become a net energy—and even a net oil—exporter. Meanwhile, China has become the world's largest importer of oil. Imports are, in fact, rising across the Asia-Pacific region. This new energy reality is fundamentally reversing the trade and economic positions of China and the United States.

Today, oil imports account for about 40 percent of America's $750 billion annual trade deficit, a deficit that drains the GDP and kills jobs. Expanding the domestic production of hydrocarbons to reduce imports as well as increase exports will function as an enormous subsidy-free stimulus to the U.S. economy, directly creating all manner of jobs across the nation and indirectly creating millions more jobs as the nation's current account deficit shrinks.

Increased production and exports of oil and gas and of energy-intensive products from chemicals to fertilizers can put the nation on track to wipe out the entire trade deficit within the decade, returning the nation to a trade balance—even a surplus—that has not been enjoyed for decades. This process has already begun: increasing exports of U.S. refined petroleum product exports are already pushing the trade deficit down.

Oil and natural gas businesses are willing and able to produce more in order to reduce imports as well as to sell to foreign buyers. This cannot be accomplished, however, unless the government avoids policies that prohibit or inhibit oil and natural gas production or that constrain the freedom to sell into markets, foreign and domestic, that make economic sense.

Over the coming decade, private investment in the American energy renaissance is projected to grow to a cumulative $5 trillion—without subsidy or taxpayer assistance. In the past four years alone, $150 billion of foreign direct investment has been made in America's hydrocarbon domains. No government stimulus program or infrastructure investment could hope to compare with this level of private activity.

To ensure and accelerate all the economic, employment, and geopolitical benefits from America's hydrocarbon capabilities, the U.S. government should immediately:

1. Approve any and all qualified entities seeking to export natural gas;
2. Approve the Keystone XL pipeline, allowing Canadian crude to replace Venezuelan imports; and
3. Direct the Department of Commerce to approve any application to export crude oil, which is illegal under current law.

Then the Obama administration and Congress should work together to do everything possible to:

1. Encourage private domestic and foreign investment in hydrocarbons; and
2. Open up greater access to hydrocarbon resources on federal lands, where 85 percent of offshore—and half of onshore—territory remains off-limits.

Finally, Congress should:

1. Pursue twenty-first-century omnibus energy legislation, starting with a clean slate;
2. Repeal the authority of the Departments of Energy and Commerce over hydrocarbon exports to open up a free market consistent with historical trade principles; and
3. Restructure federal energy priorities away from funding commercial projects, focusing instead on basic R&D.

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About the Author

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I. INTRODUCTION

For nearly 50 years, the story of American energy has had two abiding themes: scarcity and dependence. In 1968, the nation became a net oil importer; and in 1973, U.S. production of natural gas peaked and began its decline. As energy demand increasingly exceeded domestic supply, the United States suffered a ballooning and intractable trade deficit with an attendant drag on the entire economy and job creation. Rising imports deepened America's entanglement with troubled and troubling oil-producing nations. As a consequence, the orientation of policymakers and regulators for decades has been toward conserving supplies and finding alternatives to hydrocarbons.

In an extraordinary turnaround, the American story of hydrocarbons now is largely about production. The nation is seeing a boom in oil and natural gas that has turned the assumptions and policies of the past half-century upside-down.

In 2006, the decline in natural gas production ended. Output began to grow rapidly and soon surpassed its 1973 peak.[1] The U.S. is on track to shortly overtake Saudi Arabia as the world's largest producer of oil. This reversal of fortune caught policymakers by surprise, and they are struggling to reorient themselves to a world entirely unlike the one envisioned just seven years ago. It's a world in which America, so accustomed to fretting about the amount of oil and gas it consumes, can focus instead on the benefits of all the oil and gas it produces.

Even the experts are struggling to keep pace with the new reality. Last year, for example, the U.S. Energy Information Administration (EIA) offered a forecast for

total U.S. oil production in 2022. The United States will, in fact, reach that total by the end of *this* year.[2] The best industry estimates now foresee domestic oil production jumping another 70 percent within the decade.[3] The long-sought goal of "energy independence" is at hand.

As regulators struggle to get their bearings in this unfamiliar environment, policymakers should be looking at how to ensure even greater energy production. Energy policy should be focused on how hydrocarbons can rapidly shrink the trade deficit, boosting GDP and employment across the entire economy. In fact, America should orient policy around the heretofore radical idea of becoming a major energy exporter.

Refined oil products such as gasoline and diesel fuel are already significant American exports. But the White House continues to delay approval of the Keystone XL pipeline, which would facilitate even greater exports of profitable diesel and gasoline from U.S. refineries designed to process heavy oil coming from Canadian oil sands. Also, at this writing, 19 permit applications seeking permission to export natural gas are languishing within the U.S. Department of Energy (DOE). Tens of billions of dollars per year of economic benefits will come from natural-gas exports.[4] Encouraging energy exports might seem like an obvious way to pull the U.S. out of its economic doldrums, but everything about the idea is mired in political controversy.

First, antiquated laws restrict the export of crude oil and natural gas. Under legislation dating to 1938, modified in 1978, the DOE holds the authority to grant export licenses for natural gas. A 1975 federal law makes it effectively illegal to export crude oil, with only rare exceptions granted by the U.S. Department of Commerce.

Then there is the theory that exporting crude oil and natural gas could do the U.S. more harm than good—a theory based on presumptions of scarcity that, in 2013, make no sense. This view is epitomized by the debate over whether the DOE should approve liquefied natural gas (LNG) exports. Dow Chemical and a handful of other major natural gas consumers have taken a public position, along with some in Congress, opposing what Dow CEO Andrew Liveris calls the rush to export natural gas.[5] The claim is that America can't produce enough to support exports and domestic demand without causing unreasonably high domestic prices. Meanwhile, some in Congress are proposing legislation to reinforce, rather than eliminate, the prohibition on the U.S. export of crude oil.

As summarized in this paper, the case for expanding hydrocarbon exports is overwhelming, and the arguments against exports are weak or antithetical to American principles. There are manifold benefits to be had from ensuring or accelerating energy exports. Congress and the administration should take action to unleash the economic, employment, and strategic benefits that will derive from furthering U.S. hydrocarbon production and exports.

II. BACKGROUND: THE OVERALL ENERGY PICTURE

The American advantage in the world market for natural gas or crude is not simply a matter of vast resources under the ground. Hydrocarbon technology itself has made remarkable advances across many engineering domains. At the center of the new developments—and critical to sustaining the revolution—is information technology, or "smart drilling." The productivity of onshore oil and gas rigs (measured as energy yielded per dollar of capital spent) has improved by 200–300 percent in just the past four years.[6] (Photovoltaic technology and wind turbines have taken 20 years to achieve the same productivity gains.) Consequently, onshore U.S. oil production—all of which has occurred on private and state lands[7]—has seen a greater increase in output in the past six years than has occurred over 20 years of development in the Gulf of Mexico.

A critical U.S. advantage can be found in the nature of private markets. American citizens have unique private rights relating to minerals below their land and have the freedom to profit from selling those rights, creating incentives and aligning interests. Then there is North America's enormous privately financed industrial infrastructure, which captures, transports,

and processes what smart drilling has unleashed. This infrastructure is the world's largest and most flexible, integrating the entire supply chain from materials (chemicals, sand, water, water treatment) to hardware (rail, pipelines, trucks, pumps, refineries) required for safely and economically procuring, producing, managing, moving, and converting billions of tons of natural resources every year. That infrastructure is being rapidly expanded.

The torrid investment dynamic is likely to prevail for years to come and has attracted $150 billion of foreign direct investment into the American energy renaissance over the past four years.[8] That investment is already providing a tremendous boost to the economy. Over the coming decade, such investments, domestic and foreign, are projected to grow to a cumulative $5 trillion—without subsidy or taxpayer assistance.[9] No government stimulus program or infrastructure investment could hope to come close to the magnitude or effect of this much private activity.

Some 75 pipeline expansions, 30 rail projects, and several refinery expansions are now planned or under construction.[10] More than $45 billion in private spending on oil-industry expansion is on track for this year alone.[11] These investments are not confined to any one state or region. Instead, they are taking place across the country, affecting everything associated with hydrocarbons, from infrastructure to R&D, from the oil fields themselves to pipelines and rail, from refineries to chemical and manufacturing plants, and from training and tech services to health care.

One of the biggest economic benefits from this energy boom will be the opportunity to eliminate America's massive GDP-shrinking and job-robbing trade deficit. Increasing domestic production so that the U.S. can reduce imports and increase exports of fuels, combined with increased production and exports of energy-centric products such as chemicals and fertilizers, can put the nation on track to wipe out nearly all the $750 billion annual trade deficit. The only way to stop the private sector from achieving all this—without subsidy—is for the government to prohibit production or inhibit sales into any market that makes economic sense.

III. OUTMODED RULES AND IDEAS

U.S. exports of petroleum products have nearly tripled in the past half-dozen years. While America still imports a lot of crude, it is now a net exporter of refined products. But it is the potential to export natural gas that has become the current focus of policy controversy, the outcome of which is important for oil as well.

With development booming, America has unseated Russia as the world's largest gas producer. Canada and Qatar rank third and fourth, but each produces only one-third the quantities of the U.S. or Russia.

The United States has plenty of gas (and oil, for that matter) to supply domestic and world markets. In fact, even as the number of active gas rigs has declined precipitously in the past several years, total U.S. production keeps rising. Consequently, the DOE has received some two dozen applications to build massive liquefaction (LNG) terminals, any one of which will cost private investors $5–$10 billion. (Three such facilities already exist, ready for conversion, having been originally built for LNG imports.)

The reason for all this interest? Global gas demand is soaring at the same time as America's ability to produce it. Global natural gas use is forecast to jump nearly 40 percent in just five years; yet LNG shipments are seen rising less than 30 percent.[12]

The practical constraint on selling into overseas markets is not supply but the technically challenging and capital-intensive process of converting natural gas into a shippable liquid. This requires huge, energy-intensive facilities to chill the gas to –260 F, where it becomes a clear liquid, as well as specialized ships to maintain the supercooled fluid and facilities at the receiving port to re-gasify. However, the cost of American natural gas is so low that it remains competitive even after adding in all these costs.

It will take many years to build a fleet of new LNG export facilities—assuming that they are permitted—but once construction starts, producers will respond to that signal and increase supply. This is precisely

what happens in any market and is the conclusion reached by NERA Economic Consulting in a report commissioned by the DOE regarding the impact of LNG exports.[13]

Once a fleet of LNG export terminals is complete, domestic users of natural gas will continue to have a permanent price advantage over foreign users, locked in by the physics of gases. Transporting oil in tankers is easy and cheap, at about $2 per barrel. But converting any gas into a supercooled liquid and transporting it is, and will always be, expensive. The process adds, in oil-equivalent terms, about $15–$30 per barrel to the price of delivering the natural gas to overseas markets. That explains the long-term bullish view of foreign investments into U.S. gas-producing and gas-consuming businesses.

Anti-export and go-slow advocates argue that exporting natural gas could impede economic recovery because total economic gains could be greater from using cheap natural gas to manufacture products in the U.S. rather than just exporting the gas. Whatever the merits of this case, the time it will take to build a fleet of LNG terminals moots any relevance to the near term. In fact, in the near term, the economy would benefit from the combination of more domestic gas-using manufacturing and the private investment in constructing billions of dollars of export facilities.

Nonetheless, an argument remains that there is more value to the American economy in keeping all the gas here to manufacture "higher value" products for export. For example, ethane from natural gas is used to make ethylene, which is used in fabricating many products, from plastics to detergents to parts of tires and shoes. With value added at each step in the manufacturing food chain, the argument is that the government should engage in a form of industrial policy to ensure that the maximum value stays in America. The government should, in effect, mandate that America export plastic products and toys rather than natural gas. Would the same logic hold for a company such as Dow Chemical? Should chemical exports be restricted or banned in order to supply only domestic companies that make derivative products?

Macroeconomic questions of this type, including subsidy policies and currency manipulation, are the perennial features of international trade considerations—and free-trade laws. The issue for energy policy is whether pursuing the "highest value" is inherently different for any other industry. American policymakers do not ask themselves why permits are not required for the export of sand from North Carolina to China for fabricating scientific-grade glass, when the glass could be manufactured here. Nor is there debate over granting permission for the export of microprocessors to assemble smartphones in South Korea, when they could be assembled here. Indeed, why allow information on the Internet to be stored in overseas data centers, when more of the latter could be built here?

Setting aside whether anyone in the government has such magical prescience and precision to always know the right time and value in the production system wherein something should be exported, the central issue is whether natural gas (or crude) is such an extraordinary and rare substance that it merits being singled out for special restrictions and political tinkering in American and global markets. Once such logic is permitted for one product on the grounds that it is somehow "special," there is no barrier to extending the manipulation into any other good or service.

The go-slow and anti-export advocates further argue that the price volatility challenge with natural gas should be considered. Price volatility, however, is a feature of many commodities and products. Nothing in geology, physics, engineering, or economics makes a special case for natural gas. Indeed, some businesses have historically and recently addressed volatility in their upstream supply chains by establishing preferred long-term (stabilizing) contracts, or even buying their suppliers. Hyundai acquired a steel company to stabilize supply prices as well as capture more upstream value. GE acquired a company to make high-tech ceramics. Apple stockpiled specialty aluminum to ensure the specific quality as well as availability and price. Delta Air Lines last year purchased an oil refinery for similar reasons. Chemical companies, such as Dow, are free to purchase natural gas companies, too, or stockpile by entering into long-term agreements.

Free-trade constraints are antithetical to the long history of the United States and to persistent policies across both parties for decades. In the end, it makes as little sense for the DOE to have any say over natural gas exports, or for the Department of Commerce over crude oil exports, as it would for any federal agency to determine if it is in the "national interest" to export wheat, soy, sand, semiconductors, or sofas—or software, for that matter.

The positions espoused by some energy-using manufacturers amount to little more than trade protectionism. America's experience with variations on protectionism—in the form of price controls for natural gas in the 1970s and tariffs on foreign steel imports in 2002—resulted in a net loss to the economy. There are always winners and losers, but government is historically less adept than the free market at choosing the winners.

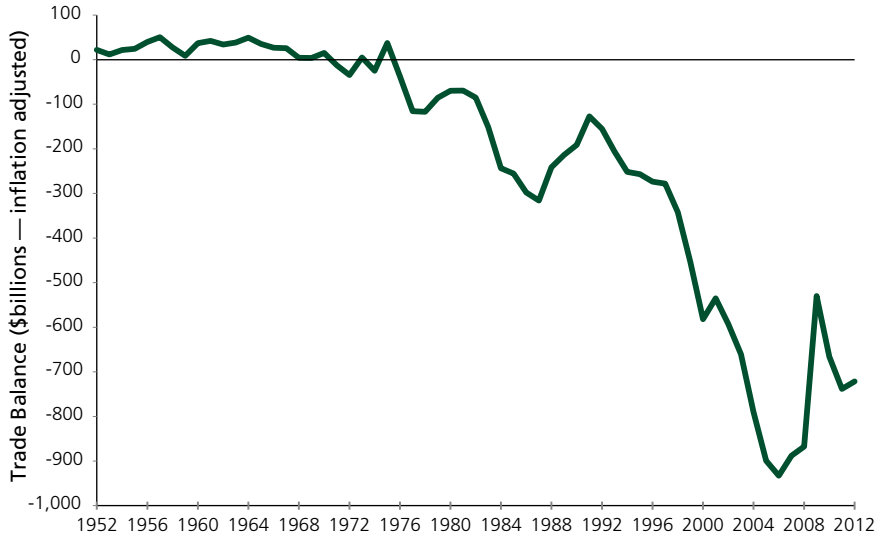
IV. ELIMINATING THE TRADE DEFICIT

The U.S. is a major exporter and sells more goods to the world, at $1.6 trillion a year, than any other nation except export-centric China, which sold $2.1 trillion worth of goods and services to the world last year. But unlike China, the U.S. imports a lot more than it exports, and hence runs the world's largest annual trade deficit, of about $750 billion. Trade deficits are a direct drag on GDP and job growth. And 40 percent of the deficit comes from energy imports: oil.

There is one clear way out of this trade-deficit hole: produce more hydrocarbons to reduce imports and to export. No other product or policy could have as big or as rapid an impact. Yes, conservation helps; but every forecast sees increasing domestic hydrocarbon demand over the coming decade.

As we have noted, current hydrocarbon exports are largely confined to refined petroleum products such as gasoline and diesel fuel, as well as coal, the export of which has tripled in the past half-dozen years. Even with those restrictions, hydrocarbons constituted the fastest-growing source of gross exports over the past decade. Thus, the overall trade deficit started easing three years ago. Only exports of transportation

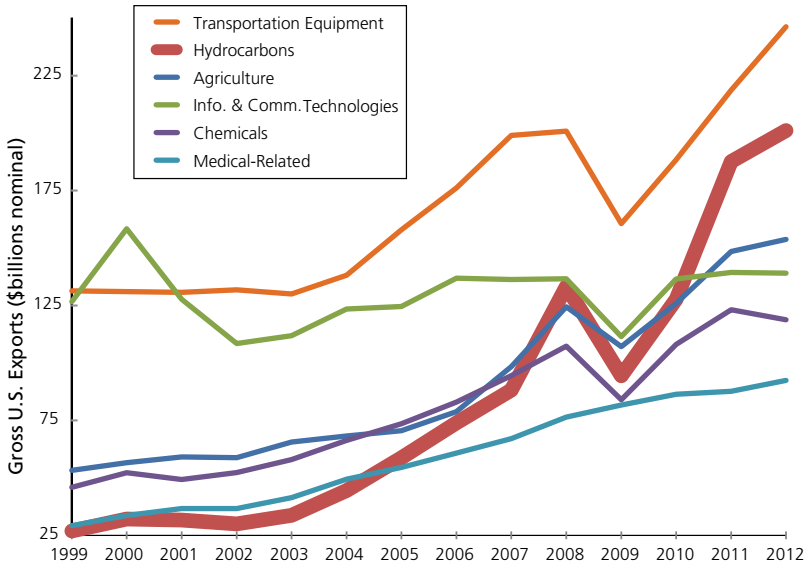
FIGURE I: U.S. TRADE BALANCE



Sources: Federal Reserve Economic Data; Bureau of Economic Analysis.

Only in recent decades has the U.S. run huge trade deficits. The Great Recession caused a radical drop in domestic consumption, briefly reversing the deficit hole. Oil imports account for 40 percent of the trade deficit, making increased hydrocarbon production the best opportunity for wiping out the trade deficit.

FIGURE 2: TOP SIX U.S. GROSS EXPORTS



Source: U.S. International Trade Commission, Bureau of Economic Analysis

Of the top six gross exports, the U.S. is a net exporter in only agriculture and chemical products. At the moment, the only hydrocarbons exported are refined petroleum and coal—until natural gas and crude oil exports are approved.

equipment (cars, trucks, aircraft) generate more revenue than the export of hydrocarbons.

Increasing the production of hydrocarbons, for domestic use and for export—the markets for which should be determined by practical logistics and opportunities, not by federal fiat—directly creates jobs across the economy and indirectly creates even more jobs as the nation's current account deficit shrinks. Cutting the trade deficit would provide an enormous stimulus to the U.S. economy.

The new energy reality has emerged so rapidly that virtually all extant forecasts for imports and exports of fuels and energy-intensive products must be recalculated to account for the pace of investment in new capacity. But we can approximate the kinds of increased domestic production now possible, and even likely, over the coming decade. These production increases will simultaneously cut imports and expand exports.

First are the revenues derived directly from energy production, whether directly exported or domestically consumed, to offset exports and reduce the trade deficit. Over the coming decade, it is feasible and likely that America could expect:

- An increase of about $200 billion per year in crude and refined products coming from the now-expected 6 million barrels per day more in domestic oil production;[14]

- Savings of as much as $100 billion a year from not importing oil. Domestic natural gas is a straightforward replacement for about 3 million barrels per day now used in heavy trucking, buses, and home heating;[15] and

- As much as $100 billion per year in exports of natural gas as LNG even if only two-thirds of the currently requested LNG export terminals are completed.[16]

The trade deficit will also decline from increased production of energy-intensive goods— in particular, chemicals and agriculture. Domestic firms as well as foreign companies have announced multibillion-dollar

plans to expand and build new fertilizer plants as well as chemical and plastics plants.

Here, too, in the spirit of approximating a possible future (stipulating that existing forecasts are now flawed, anchored in old supply-and-price paradigms), the U.S. can see within the decade:

- Some $100 billion per year more from increased exports of chemical products. America's cost advantage is so great compared with the rest of the world that chemical feedstocks will retain a competitive advantage even if U.S. natural gas prices rise 50 percent.[17]

- At least $100 billion more in food and fertilizer production. By comparison, net agriculture exports grew by $100 billion over the past decade in a far less energy-friendly environment.

All of the above would constitute at least a $600 billion per year stimulus to U.S. GDP and job growth, feasibly within the decade.

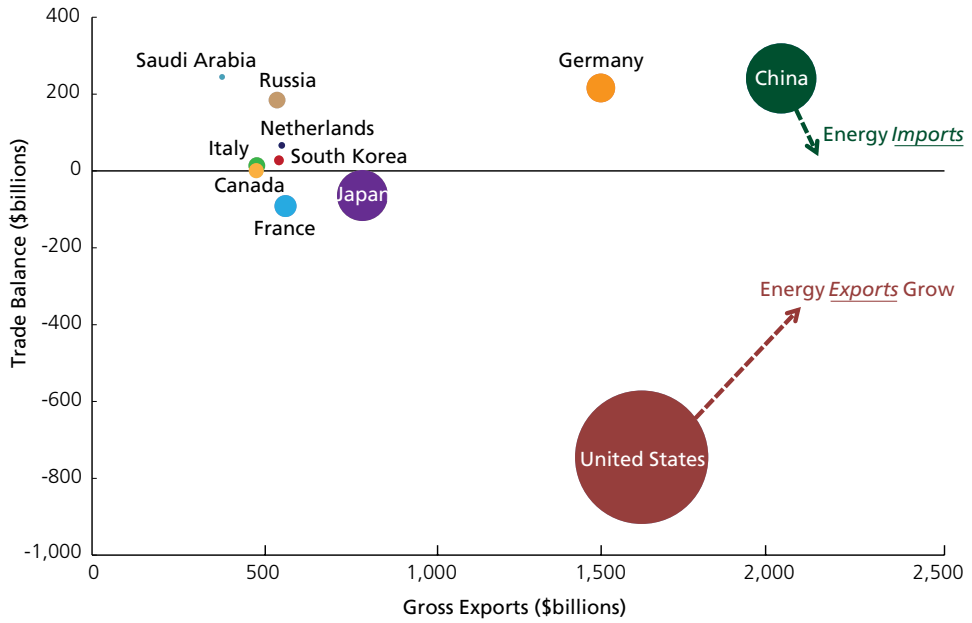
The net effect will be to begin a fundamental reversal of the trade positions of China and the United States. As the twenty-first century matures, China is set to become an economy increasingly driven by domestic demand, and less so by exports and big federal infrastructure projects.[18] For the U.S., it is the reverse.

In 2012, 55 percent of Chinese growth came from domestic consumption.[19] China is now locked in to a period of rapid growth in domestic consumption in general and oil use in particular, while American growth in both areas has leveled off. There are fewer than 50 registered vehicles per 1,000 adults in China, compared with about 630 in America.[20]

China's net exports are on track to shrink as its citizens' wealth rises and local manufacturing increasingly sells into domestic markets, and especially as China's oil (and gas) imports rise.[21]

The U.S., on the other hand, is on track to radically shrink net imports and increase its share of global trade across many sectors, especially in those areas where

FIGURE 3: U.S. AND CHINA MOVING IN OPPOSITE TRADE DIRECTIONS



America is on track to radically reduce its GDP-robbing and job-killing trade deficit. Meanwhile, China is moving in the opposite direction, as its energy imports rise, eroding its trade surplus.

America holds unique advantages—in particular, in the "manufacturing" of oil and natural gas.

But America could squander this opportunity through inaction, or worse, by imposing deliberate impediments. That would leave the epicenter of expansion in the world supply of hydrocarbons to the Middle East and Russia. If the industries that underpin American oil and gas capabilities find the business environment friendlier overseas than at home, many will pursue opportunities overseas because those companies and technologies are portable.

V. EXPORTING HYDROCARBONS IS GOOD POLICY

Aside from the economic arguments, there are better ways for the United States government to defend the national interest than attempting to harmonize global energy supply and demand. Indeed, apart from the economic case for hydrocarbon exports, there are sound policy reasons to favor them. The fundamental missions of the Commerce and Energy Departments are aligned with export approval, not with restrictions.

First, lifting export restrictions is consistent with the position of the U.S. in favor of free trade and against export quotas and other market interference by trading partners. Article XI of the General Agreement on Tariffs and Trade forbids restrictions on exports through quotas and licensing. While countries can and have claimed exceptions for scarce or limited resources, doing so for oil or gas would put the U.S. in a peculiarly self-contradictory position before the World Trade Organization. The U.S. is currently making claims against China before the WTO with regard to the latter's limits on exports of rare earth metals. As a recent Congressional Research Service report noted, this would complicate those free-trade claims against China: "The position of the United States as a promoter of free trade may also be challenged."[22]

Second, lifting export restrictions is consistent with America's geopolitical interests. For example, British, Spanish, South Korean, and Indian companies have all signed preliminary agreements to import American natural gas, if and when U.S. exporters receive approval. America's trading partners are eager to work with American companies, as Japan's minister of economy, trade, and industry, Toshimitsu Motegi, said in May: "New flow of LNG supply from the U.S. to Asia is an essential game changer that would contribute to energy security as well as economic and geopolitical stability in Asia."[23] If American companies do not receive permission to sell natural gas, countries will certainly seek other sources—notably Russia, which is considering building LNG export terminals on its eastern coast to service Japan.

VI. WHAT POLICYMAKERS MUST DO

Exporting oil and natural gas could lead to a fundamental repositioning of America in world trade and geopolitics—a new American century for hydrocarbons. This would ensure that much of the GDP-robbing $750 billion a year trade deficit is conquered, that $5 trillion in private capital is invested in infrastructure, that hundreds of billions in tax receipts flow to state and federal treasuries, and that millions of jobs are created. It is important to note that most of the jobs are not direct employment in oil or gas but are largely in the hard-hit manufacturing and high-value services industries.

What, then, should the U.S. government do to assure the hydrocarbon production and export bounty? The answers fall into three categories: immediate opportunities for executive action; near-term opportunities for legislative action; and long-term, fundamental restructuring of American energy policy.

Executive actions that would lead quickly to major economic benefits and send the right signals to domestic and world markets include:

- Approving the application of any and all qualified entities seeking to export natural gas;
- Approving the Keystone XL pipeline; and
- Directing the Department of Commerce to approve any application to export crude oil.

In the near term, the administration and Congress should work together to:

- Encourage private investment in hydrocarbon production.

  Direct all relevant federal agencies to identify and resolve unintentional impediments to increased development of refineries, pipelines, and oil and gas production on private lands and, collaterally, avoid imposition of any proposed new rules or regulations on any industries and practices that are already heavily regulated at the state and federal level.

- Open up greater access to hydrocarbon resources on federal lands.

  Modern technology makes such development safe and environmentally responsible. The federal government controls and restricts access to 50 percent of all onshore hydrocarbon-bearing territory and 100 percent of the offshore territory, wherein 80 percent of that territory is off-limits to exploration or development.

- Help the Bureau of Land Management (BLM) set administrative and budget priorities.

  The BLM recently announced that it was postponing oil and gas lease auctions on land that it controls in California because of demands on its resources to deal with environmental litigation and because it is "concentrating its limited resources on … other priorities, such as granting renewable energy permits."[24] Thus, the BLM is giving priority to projects that require federal subsidies resulting in purchases of Chinese solar technology rather than facilitating oil and gas development that is subsidy-free and results in exports to China and other nations.

Finally, in the long term, omnibus legislation is needed to revisit and replace nearly everything to do with energy that evolved in an age anchored in the idea of hydrocarbon scarcity and import dependence. The underlying logic of today's legislative structure makes as little sense as if policymakers had borrowed ideas from 1935 to craft the omnibus 1975 Energy Policy and Conservation Act. Technology realities and world trade dynamics have radically shifted in the past four decades and call for new umbrella legislation. In that regard, Congress should:

- Establish a joint committee to create twenty-first-century omnibus energy legislation, starting with a clean slate.

- Repeal the Departments of Energy and Commerce authority over hydrocarbon exports.

  The legislative treatment of hydrocarbons must be brought into alignment with other industries and nations. Such reform would be consistent with the president's National Export Initiative (NEI): "The NEI recognizes that exports will play a critical role in catalyzing America's near- and long-term economic growth, and it represents the first time the United States will have a government wide export promotion strategy with focused attention from the president and his Cabinet."[25]

- Restructure all energy R&D priorities.

  The private sector has demonstrated the capacity and willingness to make massive investments. But the federal government has a unique role in critical long-term basic R&D (not commercial project funding).

Note that none of these actions calls on increased federal spending but instead a reduction or a reallocation and would result in greater federal revenues from hydrocarbon production.

In short, energy policy should be reoriented away from old ideas based on limits, scarcity, and dependence, and toward the new reality of abundance, growth, independence, and exports.

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The Power and Growth Initiative at the Manhattan Institute is focused on increasing public understanding of North America's abundant energy resources and encouraging public policies that will allow the United States to harness the benefits—for our economy and for our influence in the world—of that abundance. This effort springs from a new energy reality: technology has unlocked our vast resources of natural gas, oil, and coal for both domestic use as well as export, and can create millions of new jobs while providing affordable energy to the world.

By 2030, the International Energy Agency forecasts global energy demand to grow by about 50 percent, to some 120 billion barrels of oil equivalent per year. Of that amount, the IEA and other forecasters expect that up to 80 percent will come from oil, coal, and natural gas. The vast natural resources of the United States and its North American allies in Canada and Mexico, mean that we stand capable of supplying much of the new demand. Yet the underlying paradigms embedded in American energy policy and regulatory structures are anchored in the idea of shortages and import dependence. A reversal in thinking is needed to orient North America around hydrocarbon abundance. The United States alone has thousands of billions of barrels of oil-equivalent in the form of coal, oil and gas shales, and other non-conventional resources. Canada and Mexico also sit atop thousands of billions of barrels of hydrocarbon resources, all of which will become increasingly accessible and affordable as technology evolves.

The United States is not running out of energy. It is time to appreciate the staggering economic and geopolitical benefits that the development of our vast hydrocarbon resources can bring. It is no overstatement to say that jobs related to extraction, transport, and export of hydrocarbons can awaken the United States from its economic doldrums and produce revenue such that key national needs can be met—including renewal of infrastructure and investment in scientific research.

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