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CRUDE OIL EXPORT & U.S. NATIONAL SECURITY

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Center for a
New American
Security

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A dramatic increase in the production of domestic crude oil over the last several years is creating a new era of energy abundance in the United States.¹ In addition to a major economic boost, this provides the United States with important national security benefits. By making the global oil market more stable and better able to adjust to shocks, U.S. producers are reducing the ability of other countries to use energy supply or price decisions to coerce or harm the United States, our allies, and others. The energy boom also provides U.S. policymakers with the ability to impose powerful energy sanctions and gain important leverage in trade negotiations.

Continuing to collect and expand the dividends of American energy resources for our economic strength and international security requires the United States to adapt its energy policy to new market conditions. Promoting the export of U.S. oil, which is currently under nearly complete prohibition, would help to sustain the benefits of the U.S. oil boom.² Low oil prices are slowing energy investments and the contribution of the energy boom to U.S. domestic economic growth is diminishing, but the logic of adopting new policies to promote oil export remains squarely within the national interest. Even if it does not lead to more oil production while prices are low, the market will inevitably rebound. Opening up the export market would help make U.S. energy producers more nimble and the economy

more resilient, while at the same time strengthening Washington's influence and leverage around the world.

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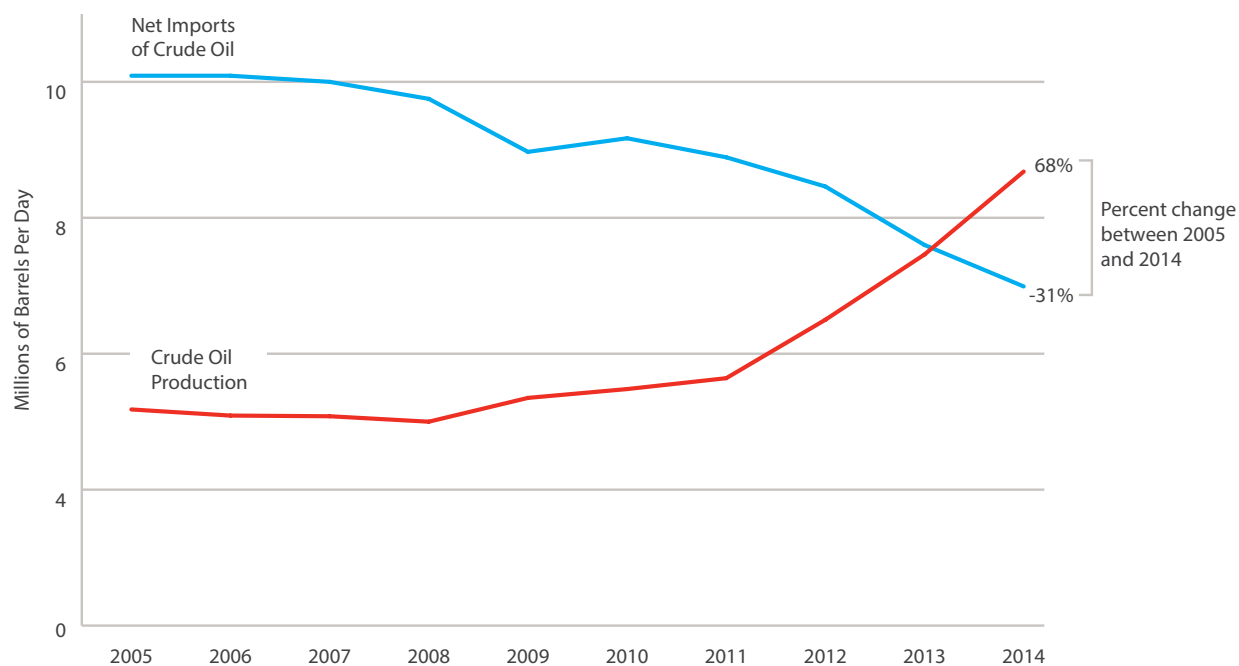
Lifting the oil ban requires policy innovation and a plan for managing the environmental impacts of producing more oil. It also requires a major effort to educate policymakers and the public about how such a policy change would benefit consumers by contributing to lower gasoline prices. If policymakers fail to chart this course, they would undercut dynamic American potential and miss an important opportunity to contribute to U.S. prosperity and security.

The core argument for promoting more U.S. oil export is the economic stimulus and resilience it would provide to the United States and its allies. This economic benefit is also an important national security argument for greater oil export because of the fundamental importance of economic strength to national security. A strong and growing economy supports job creation, investment capital for commercial growth, defense and social spending, and foreign aid, all of which elevate U.S. stature and the ability of U.S. policymakers and entrepreneurs to lead on security and economic matters globally.

There are additional security benefits that have been largely overlooked in the public debate about U.S. oil export. Changing oil market circumstances and grave international security challenges create new opportunities for the United States to leverage its abundant energy; these changes demand a sharper look at the national security arguments for greater energy export.

With a specific emphasis on national security implications, this policy brief describes the recent U.S. energy production expansion and the history of crude export prohibitions. It also discusses the impact on U.S. economic and foreign policy interests of promoting oil export. Specifically, it explores the expanded international influence the United States could achieve in the areas of sanctions, security alliance politics, strategic trading and technology export, and promotion of energy security. Finally, the brief provides recommendations for pragmatic policy to expand U.S. crude oil export to enhance American energy security and global leadership.

U.S. Oil Production Grows and Net Imports Decline



*Crude oil production includes lease condensate.

Source: U.S. Energy Information Administration, Short-Term Energy and Summer Fuels Outlook, April 7, 2015.

U.S. RULES FOR OIL EXPORT DO NOT FIT THE TIMES

In today's conditions of abundant oil supply, shrinking U.S. oil demand and imports, and a large, global, and integrated oil market, current U.S. crude oil export rules undermine economic growth and security. Congress passed oil export restrictions in 1975 to prevent domestic producers from circumventing the oil price controls and supply allocations that were designed to manage the domestic oil market.³ In the wake of the 1973 Organization of Arab Petroleum Exporting Countries (OAPEC) oil embargo, the export ban aimed to promote energy supply security by keeping oil at home. Price controls and limits on the export of refined petroleum products were unsuccessful in delivering oil price stability or balanced economic growth, and were removed in the early

1980s.⁴ However, crude oil export restrictions remained, and were largely unnoticed given the rising trend in crude oil imports, until the present energy revolution.

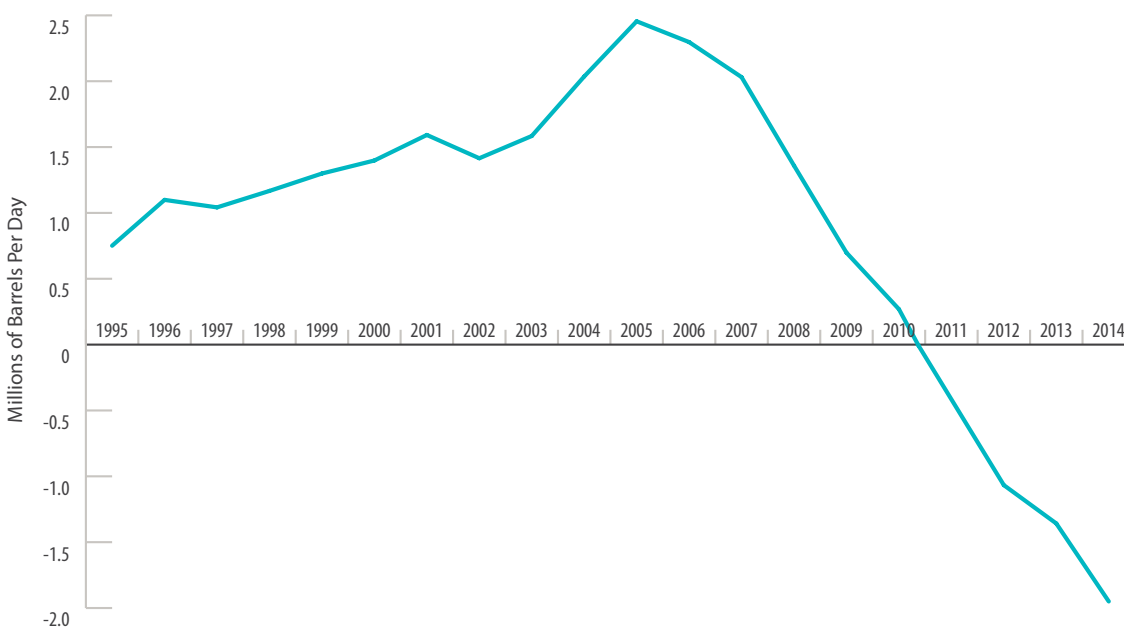
Promoting U.S. crude oil export today would encourage efficient and open markets, diversify the global oil supply pool, and contribute to domestic economic growth and the U.S. balance of trade.⁵ It would ease the mismatch between the abundance of light quality domestic oil and of refineries oriented mainly to heavy oil by giving U.S. producers more access to markets abroad. Critically, this would stimulate domestic production growth when global prices are stronger than those in the domestic market and would offer a variety of strategic benefits.

There is logic to lifting the ban even though the magnitude of the economic and security benefits to be gained will vary with fluctuations in the oil price and be more limited in a low oil price cycle. This logic holds even if the dividends are not as great as those that the shale revolution has delivered to the United States over the last several years.

Supporters of maintaining crude oil export restrictions include the subset of U.S. manufacturers who benefit from the market distortions, specifically the lower domestic prices of crude relative to international benchmark prices. Some domestic refineries would see shrinking margins and possibly even have to fold or significantly change their business model if the export ban were lifted, resulting in some domestic oil producers finding greater value in sending crude abroad rather than refining it domestically. However, there is no public policy justification for privileging

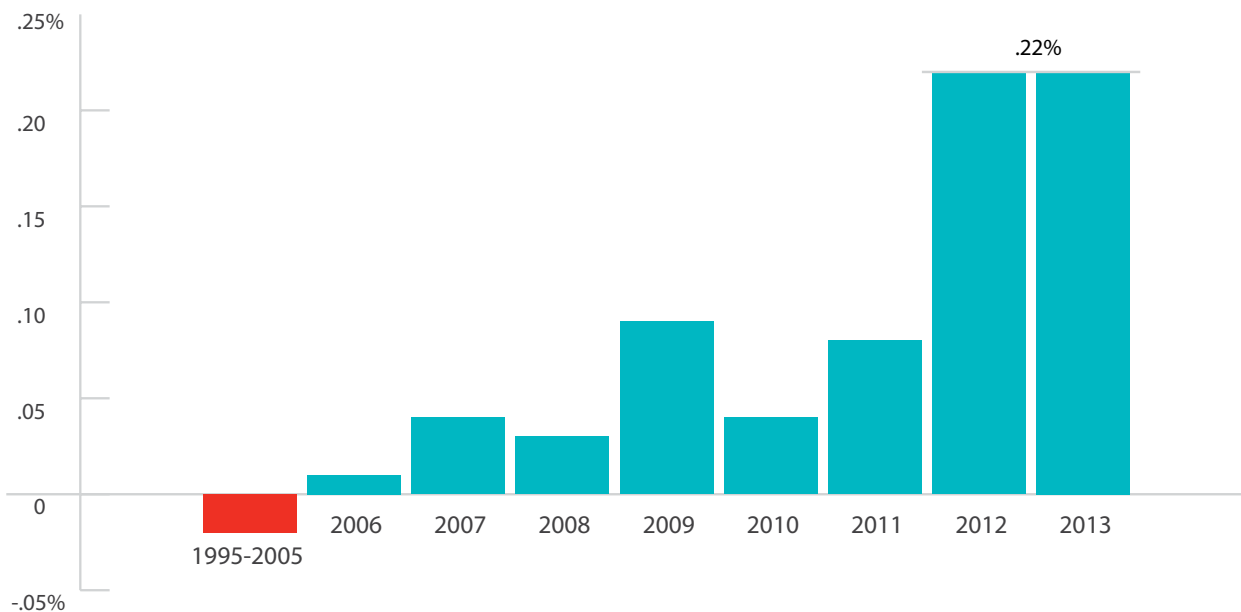
... there is no public policy justification for privileging a subset of U.S. refiners over the rest of the energy industry, including other refiners and oil drilling and producing companies, particularly given the broad market and security advantages of lifting the ban.

Net Imports of Refined Products



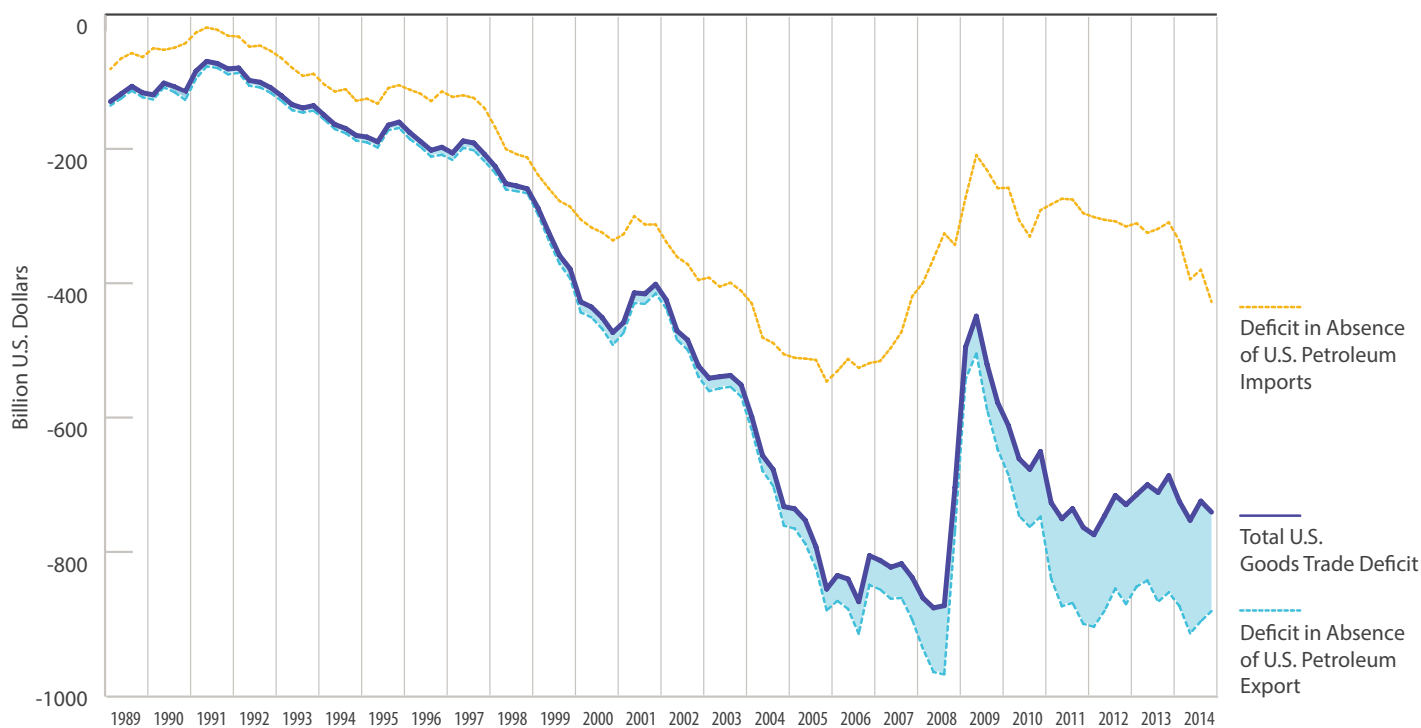
Source: U.S. Energy Information Administration, Supply and Disposition of Crude Oil and Petroleum Products, Jan 2015.

Contributions of Energy Production to U.S. GDP Growth



*Council of Economic Advisers (CEA) calculations use physical quantity data for oil and natural gas production.
Source: EIA; CEA.

Improvements in Petroleum Trade Balance Reduce U.S. Trade Deficit



Source: EIA, Today in Energy, July 21, 2014; U.S. Bureau of Economic Analysis, International Accounts Products for Detailed Goods Trade Data.

a subset of U.S. refiners over the rest of the energy industry, including other refiners and oil drilling and producing companies, particularly given the broad market and security advantages of lifting the ban.

Some policymakers support a status-quo protectionist oil trade policy, citing the risk that constituents might blame them if gasoline prices were to rise after a liberalization of export measures, even if a price increase were unrelated to the policy change. The damaging political consequences of being accused of causing an increase in gasoline price – which can be a major household expenditure for working Americans – leads politicians to shy away from any energy policy change. This is particularly true in an election year and is a significant reason that policymakers have shied away from major energy policy reform in recent years. However this concern demands public education and leadership, rather than tepid maintenance of the status quo.

An additional argument for the current policy is environmental. Supporters say that the increased oil production from lifting the ban would contribute to greater carbon emissions. While the consumption of non-renewable hydrocarbon energy and climate change are very serious issues worthy of urgent policy attention, the most effective strategies for promoting clean, renewable energy and limiting emissions are those that tackle these challenges head-on. Trying to limit emissions through oil export policy is indirect and inefficient. U.S. leaders would be better able to model strong global leadership on climate change if they were to sustain and expand a direct policy focus on the most serious transport and power-sector emitters through direct policy initiatives, as the last several administrations have done.

NATIONAL SECURITY IMPLICATIONS OF A NEW OIL EXPORT POLICY

To seize the opportunities presented by the current domestic oil boom, including greater market efficiency and increased trade and political leverage, policymakers should promote greater oil export. Among a variety of national security benefits associated with lifting the U.S. crude oil export restrictions, the economic benefits may be most significant.

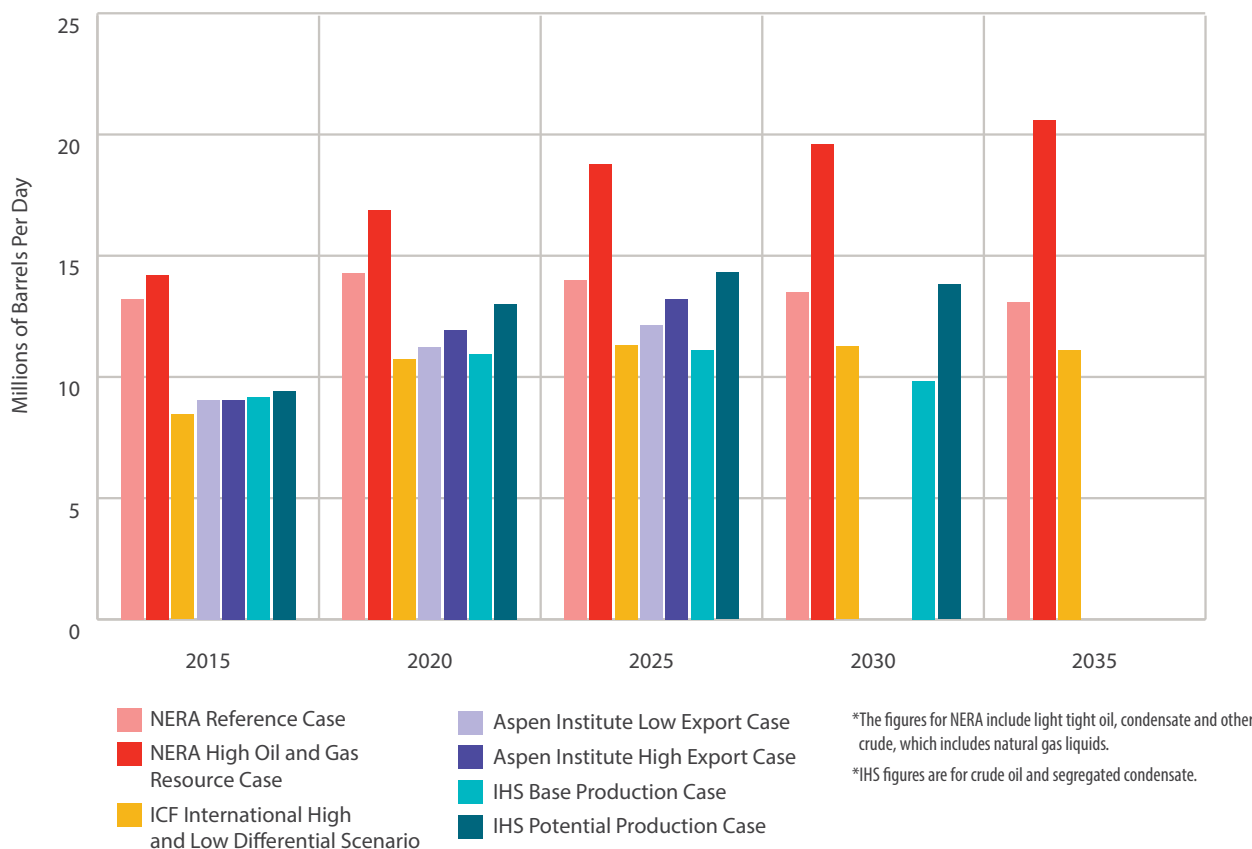
Strengthen the U.S. Economy

A fundamental underpinning of national security is a vibrant economy. Promoting more energy export by lifting the oil export ban would increase U.S. oil production, decrease domestic refined product prices, and grow GDP.⁶ Key to these effects is the signal to investors and producers that expanded U.S. oil output would be able to access global, not simply domestic, markets.

Expanding U.S. oil supply would contribute more oil to the global market, with estimates ranging from 110,000 to 2.8 million barrels per day by 2020 depending on various factors, including oil price.⁷ In a more competitive supply environment, additional supplies would contribute to decreasing global benchmark oil prices.⁸ This would reduce U.S. gasoline prices too, given the dependence of U.S. gasoline prices on global benchmark oil prices.⁹ This effect is counterintuitive and surprising to those not closely following oil market movements, but nevertheless one on which analysts broadly agree. Recent studies estimate that lifting the export ban alone would reduce U.S. gasoline prices by 1.4–12 cents per gallon.¹⁰ While the level of gasoline price decrease would be tempered in a low oil price environment, consumers would see relief at the pump if the United States were to embrace oil export.

Stimulating U.S. oil production through encouraging export would, broadly speaking, grow GDP because oil production harnesses an enormous amount of capital and labor,¹¹ thus keeping more oil rents, and taxes, at home. Consultancy IHS estimated in March

Lifting the Crude Export Ban Will Increase Domestic Oil Production



2015 that the U.S. energy revolution has contributed nearly 1 percent to GDP growth annually over the last six years and accounted for about 40 percent of overall GDP growth in that time.¹² According to the same study, lifting the ban on crude oil export would add \$86 billion to \$170 billion to U.S. GDP annually on average between 2016 and 2030.¹³ A NERA study prepared for the Brookings Institution estimated GDP gains from lifting the ban to be \$66–94.5 billion in 2015 and \$39.2–82.5 billion in 2020.¹⁴

Growth in domestic oil production and export of refined products in the past few years has steadily improved the U.S. trade balance and provided support for the dollar as net oil imports

declined sharply.¹⁵ This reinforces the U.S. position as the world’s financial center and safe haven, both of which contribute significantly to U.S. power abroad and national security at home. With more tax revenue available for defense and social spending and for foreign assistance, and with a country less indebted – and less beholden – in its foreign trading positions, the United States is able to exercise more influence among allies and against adversaries in multilateral security and economic commitments. However, absent policy changes initiated through Congressional legislation or administrative rulemaking, executive order, or waiver, there is a risk that positive effects would diminish over the next few years, whereas promoting crude export would contribute to their persistence.

Promote Open Markets

Increasing oil export would make the United States a more important trading partner for more energy consumers abroad, which would expand its role and leverage in international strategic relationships. Additionally, this increase is in the interest of our foreign trade partners. A U.S. energy export policy that allowed the free flow of all energy commodities would expand the scope for the United States and its trade partners to optimize consumption of energy commodities, particularly in response to seasonal and regional demands. By deepening the diversity of energy commodity trading relationships, this would achieve greater market efficiencies, lower costs for consumers, and strengthen economic resiliency in times of shock.

Exporting more U.S. oil would also support global supply security. When more of the supply pool comes from producers, such as those in the United States, that do not suffer threats from political instability or imminent danger to critical energy infrastructure or supply lanes, the overall market is more stable. Additionally, U.S. crude shipped to consumers overseas can avoid maritime hot spots and choke points such as the Strait of Hormuz. Major consumers in East Asia, for example, are highly vulnerable to supply disruptions from conflict in the Middle East, from where they import most of their oil. Roughly 83 percent of Japan's crude oil imports and 52 percent of China's crude oil imports in 2013 came from the Middle East.¹⁶ U.S. crude may not be a direct substitute for the kinds of crude cut off from the global market by conflict or sanctions, including Libyan, Iranian, or Iraqi supplies. However, the capacity of sophisticated refineries or long-haul shippers to match available crude to consumer demand means that, broadly speaking, increased U.S. oil production and export would contribute to a more flexible market that could better adapt to supply disruptions.

Greater U.S. oil export would allow the United States to strengthen the credibility of an anti-protectionist trade policy, given that many U.S. trading partners have put liberalizing energy export at the top of their national security agendas with Washington. The American commitment to free trade has allowed it to pressure other countries to open their own markets to American goods and services. Making a clear commitment to free trade in energy now would afford Washington leverage on key commodity trade issues under negotiation with foreign partners. European negotiators in the Transatlantic Trade and Investment Partnership (TTIP) talks, for example, have called for an energy title in the agreement, and may be willing to make concessions to achieve this.¹⁷

Asian nations, including South Korea, Japan, and China, are also seeking more liberal U.S. energy trade terms.¹⁸ They may similarly be willing to offer concessions that would assure greater market openness and a more level playing field for U.S. firms. At a dynamic moment in the evolution of Asia-Pacific economic and commercial relations, the United States has an opportunity to send a strong signal of continuing, indeed growing, relevance to Asia's economic future. This would provide some negotiating leverage and a powerful signal of continuing U.S. engagement in the region. Furthermore, open energy trade would be indispensable for winning potential disputes over natural resource trading that may arise with other countries, like the trade dispute with China brought to the World Trade Organization in 2012 after China cut its quota of export of rare earth minerals to international markets.¹⁹ More open global energy trade would also position developing energy consumers, such as China and India, to join the economies of the Organisation for Economic Co-operation and Development as responsible stakeholders in collective energy crisis management.

Cultivate Sanctions Leverage

One of the most important security benefits of lifting the crude export ban is the additional flexibility and leverage it would give to the United States to sustain and expand energy sanctions. Diplomatic experience from the Iran sanctions case indicates that the effectiveness of powerful energy sanctions is underpinned by the ability of the United States to facilitate oil production growth.²⁰ As U.S. producers added more oil to the global marketplace, they effectively created alternatives for buyers who pulled back from Iranian supplies due to sanctions. The United States will be in a stronger position to impose future energy sanctions, if necessary, if it promotes free trade in energy. In so doing, policymakers would make it possible for U.S. producers to expand production more easily to substitute for global supplies unavailable due to sanctions.

The United States has increasingly used energy sanctions over the last several years as a policy instrument to isolate and coerce adversaries. Economic sanctions have removed roughly 1.4 million barrels per day of Iranian oil from the market since 2012,²¹ which played an important part in bringing Iran to the negotiating table regarding its nuclear enrichment program. Without substantial increases in alternative oil supplies, the international community would not have been willing to sustain these sanctions, nor to cope with the oil price increases they would have caused, particularly in light of historically high oil supply disruptions of 2–3 million barrels per day globally during this time.²² The United States has added about 1 million barrels per day annually over the last several years, and Saudi Arabia also turned up its production to balance the market.²³ In addition to targeting Iran's energy sector, the United States and the European Union have also imposed sanctions on Russia to handicap its energy sector as part of the broader Ukraine policy strategy.

The achievement of a framework for a nuclear deal with Iran in April 2015 offers reason for optimism that the parties will reach a final deal by their deadline in June and begin a process of removing sanctions. Nevertheless, if only as a contingency, policymakers in Washington need to retain their ability to impose tough additional energy sanctions on Iran. A grim outlook for relations with Russia, and the attractiveness of energy sanctions as a tool to address other potential security problems, means that policymakers have a stake in cultivating the U.S. ability to deploy this tool in the future without causing spikes in oil prices.

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Promoting U.S. oil export would give Washington more flexibility to impose new oil sanctions, whether an agreement with Iran on the nuclear question is achieved or not. It would also make the United States a more formidable market competitor which, in the case of Iran, would mean a limiting effect on Tehran's market power and attempts to influence market balances. The United States and

Iran are two major producers of condensate;²⁴ their competition can be exploited to the benefit of the United States if the United States promotes more export, thereby competing more aggressively with Iran in this niche market.

Lifting the ban and actively promoting alternative oil supply would also bolster the ability of U.S. policymakers to convince international allies to support further energy sanctions. Putting more U.S. oil on the market would increase the leverage of the United States as it seeks to build the multilateral coalitions that are necessary for effective energy sanctions. Most of the closest security partners of the United States, like those in Europe and Northeast Asia, are net-consuming, importing nations who are highly sensitive to the negative economic effects of energy supply disruptions. Their collaboration with the United States on energy sanctions would be more forthcoming if alternative energy supplies were available and if the United States, as the leader on sanctions, were actively promoting this objective.

Support Allies

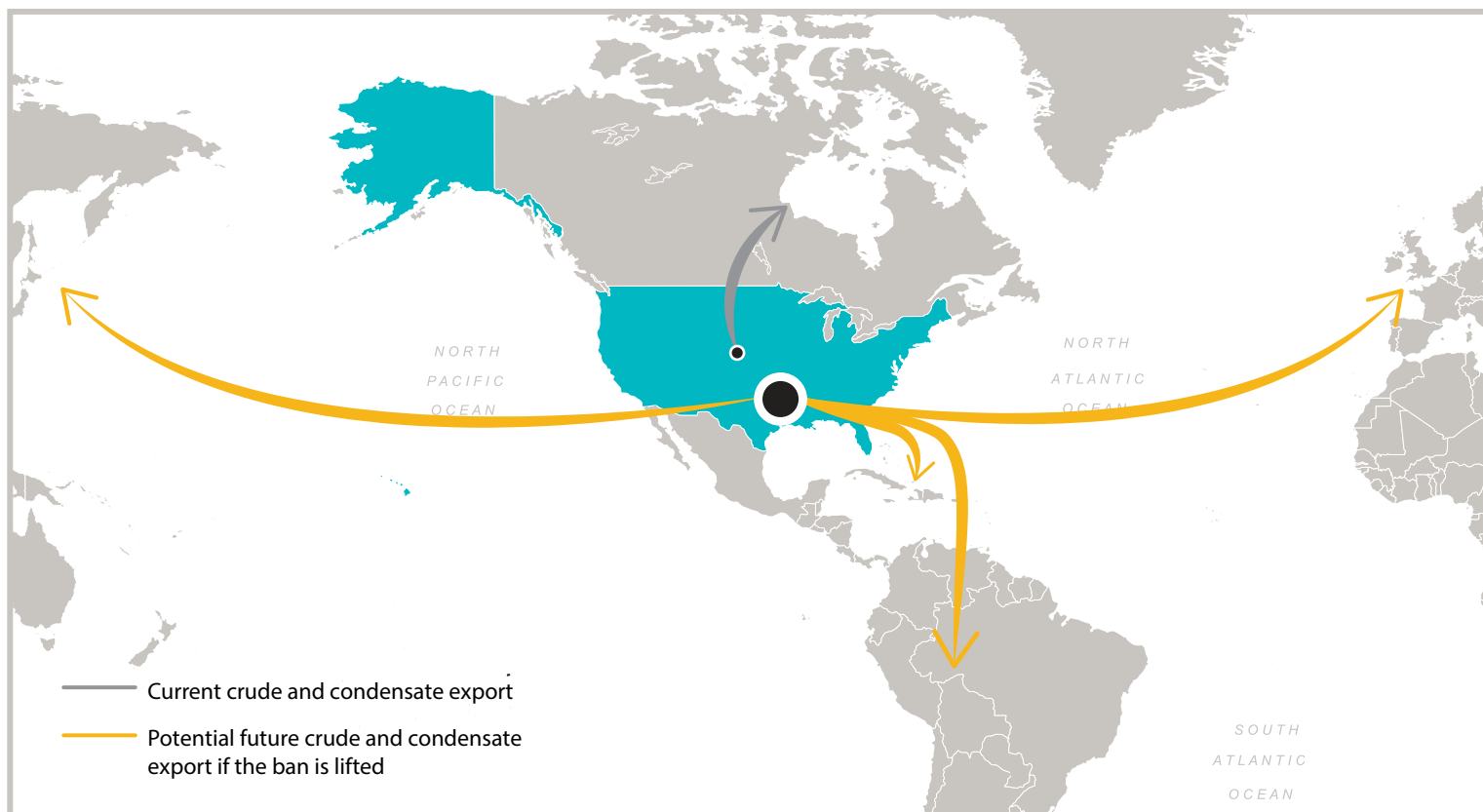
Greater U.S. oil export would be strategically significant for our allies, offering price and market access and stability benefits, and representing an important show of support. This would be true for Canada and Mexico, which are among the most significant U.S. trading partners, as well as allies overseas. For our European allies, the presence of more U.S. oil in the market could, over time, help reduce their reliance on Russian oil. Accessing more U.S. oil means European consumers would have more supply options and could therefore shrink their roughly 30 percent oil dependency on Russia,²⁵ which has recently stepped up its use of energy leverage as a coercive foreign policy tool. While Europe's energy vulnerability to Russia is more of a concern when it comes to natural gas than oil, due to the greater difficulty in accessing alternative supplies in the natural gas market,

Europeans are eager to distance themselves from Russia as an energy supply source wherever feasible. Europe's ability to look elsewhere for oil supplies would make Russia compete harder, diminishing its oil revenue from sales to Europe.

A fundamental pillar in the current U.S. response to Russia's destabilizing role in Ukraine involves transatlantic collaboration to degrade Moscow's ability to compete in global energy markets. However, there is an asymmetry involved, given that Europe pays a much more substantial economic cost than the United States for this effort at economic coercion. Liberalizing U.S. oil export policy would, over time, reinforce the pressure on Russia's energy sector and would be seen as important strategic support for allies in Europe. When our closest allies are stronger, the United States is more secure and better able to bolster and lead multilateral security initiatives to counter Russian behavior.

For East Asian allies, more U.S. oil supply in the market would be a strong signal of U.S. economic engagement with the region. It would also present them with an opportunity to diversify away from Gulf and Russian oil, and would support lower prices. This market stabilization would benefit all East Asian nations, including our treaty allies Japan and Korea, as well as China. Policies that confer mutual benefit on the United States and East Asian nations, particularly in an area of significant trade, enhance regional security and should be priorities for the United States. Over the longer term, they might also help to weaken strategic regional competition by increasing the shared incentives for stable, efficient market activity. An active U.S. role in using energy to enhance stability in this neighborhood reinforces the credibility of our policy of rebalance to Asia. It would benefit our country and all others that see their own future tied to stability in this burgeoning region.

Oil Will Flow to More Key U.S. Allies if the Export Ban is Lifted



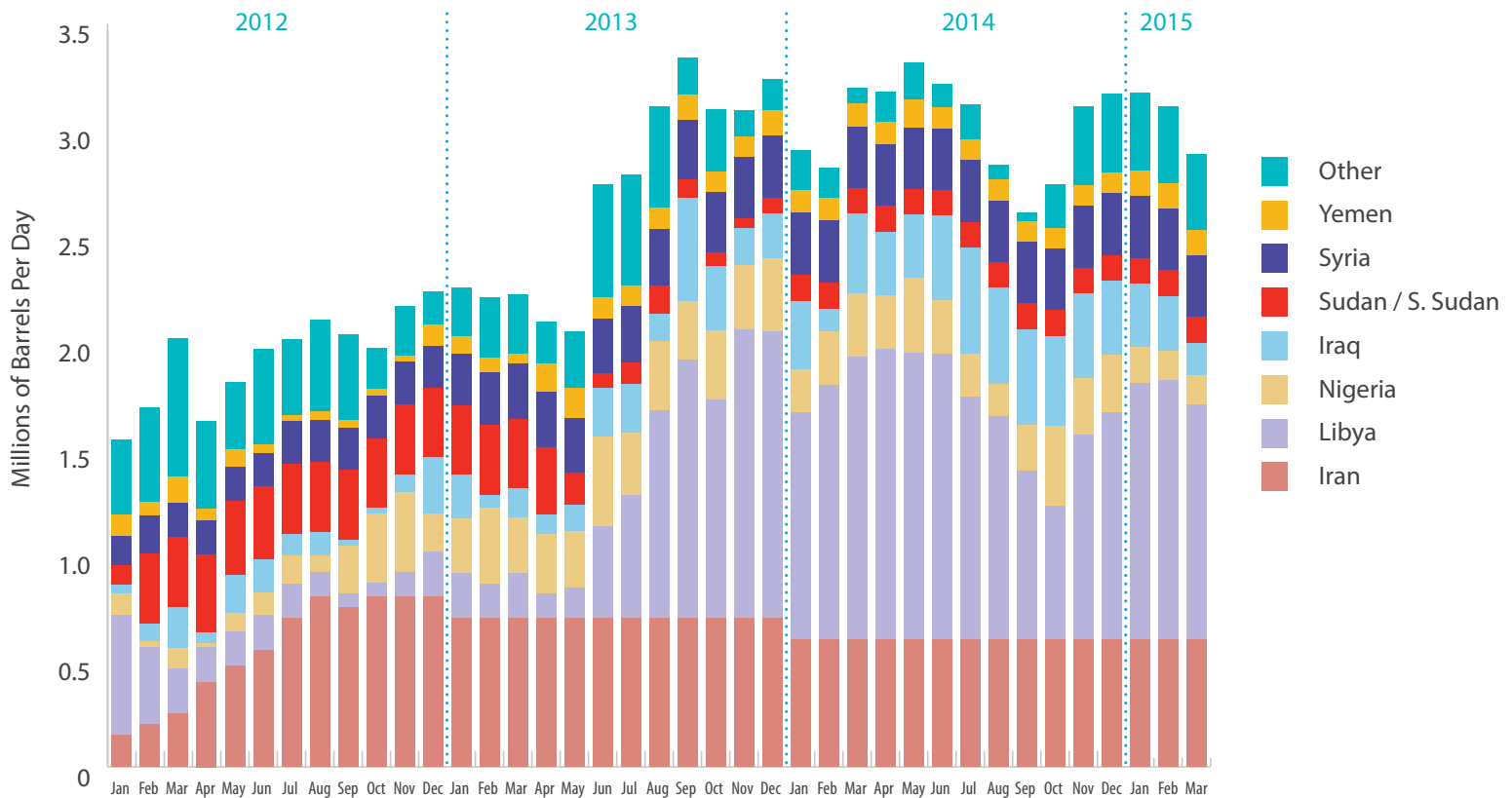
Weaken OPEC's Leverage

Expanding oil export would contribute to making the United States and its allies less vulnerable to market supply or price spikes. This is due to its contribution to reducing Saudi Arabia's role as the sole significant market balancer. After adding roughly 4 million barrels per day of production over the last several years, U.S. producers have become a leading oil market supply constituency. Promoting U.S. oil export would support the growth of U.S. oil supply and would therefore contribute to diversity and flexibility in the global oil market system. As a result, U.S. producers would be even more important to global oil market stability and more able to play a role in balancing a volatile market. While U.S. oil companies cannot make supply changes instantaneously – only Saudi

Arabia, with the vast majority of global spare supply capacity, is able to move the market substantially within days or weeks²⁶ – they are relatively agile and resilient. Some North American oil companies can bring on new production, from investment to commercial production, in a period of just months; many conventional oil producers elsewhere, in places such as Brazil, West Africa, Canada, the Gulf of Mexico, and the Arctic, require years to do so.²⁷

Having two major supplier nations capable of significantly influencing marginal production, even if they move at different paces and have different amounts of clout, is better for global oil market stability and economic growth. In a large, widely traded, and interconnected global oil market, the ability to make relatively quick moves on the supply side in response to prices represents an important ability to influence markets. This means that U.S. producers, in addition

U.S. Oil Producers Increase Productivity



Source: EIA, Short-Term Energy and Summer Fuels Outlook, April 2015.

to OPEC’s leader Saudi Arabia, would share greater responsibility for keeping prices stable, a heavy but important burden in low-price periods when producers are forced to cut back production.

Over time, U.S. relations with Saudi Arabia could become more balanced by the elevated role for U.S. producers in shaping the market. Additionally, the ability of U.S. producers to raise output quickly and flexibly may eventually also influence the decision-making of other producers, such as Russia, if it attempts to use oil as a strategic weapon. Coupled with the leverage of the potential release of Strategic Petroleum Reserve stocks, this U.S. ability to move nimbly to raise output might even deter Russia from attempting energy coercion in the first place.

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Expand America’s High-tech Advantage

Increased U.S. oil export would also ensure that U.S. producers continue their aggressive approach to technological development and to maintaining superiority wherever leading energy technology is

deployed globally. The sophisticated unconventional technology that brought about the energy revolution is a significant American asset. Over the last decade, the U.S. oil patch has been the most productive laboratory for the development of unconventional energy production technology. This innovation is the envy of competing producers, particularly in China, where growing energy import dependence and difficulties in unlocking domestic unconventional energy resources foster a keen sense of vulnerability.²⁸

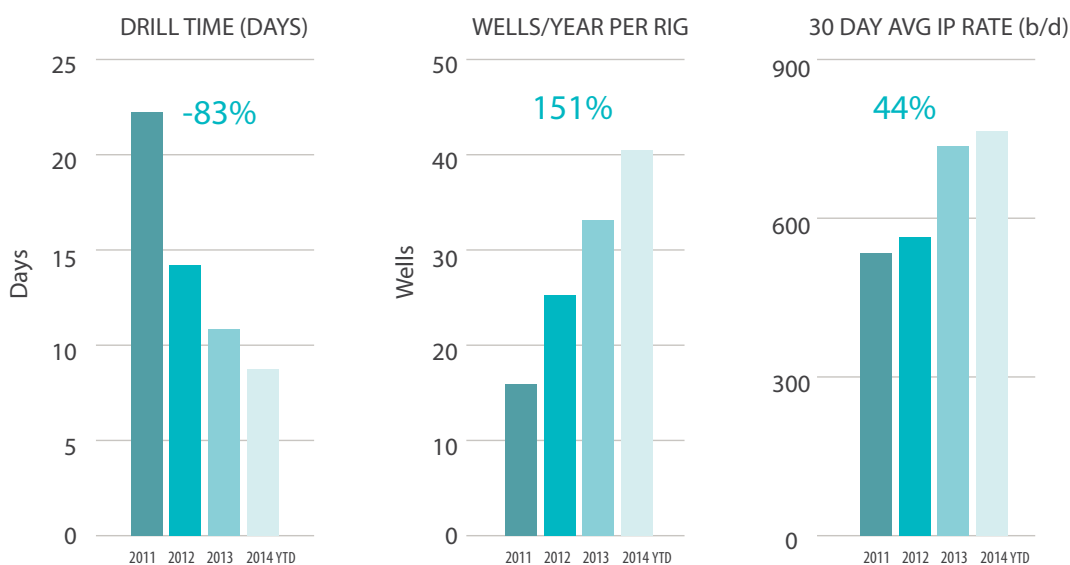
Official estimates from the U.S. Energy Information Administration (EIA) suggest that the shale and tight rock formations feeding the current U.S. oil bonanza will see peak production in the early 2020s.²⁹ Historical experience suggests that this may be a modest estimate. Whenever this production begins to plateau and decline – whether due to geology, price, or public sentiment – the U.S. technology know-how that pioneered this energy revolution

will continue to represent an important strategic and economic asset.

Removing U.S. oil export restrictions is an investment in the “laboratory” that the U.S. oil patch provides for energy technology development. It would stimulate capital expenditures and research and development to improve well productivity and oil recoverability. Actively positioning U.S. technology firms as the developers and drivers of unconventional energy development, wherever it occurs in the world, would bring numerous strategic and economic benefits. Licensing or selling highly sought-after technology for a critical economic sector is lucrative, and can link the most important energy producers of tomorrow to U.S. firms for energy and economic success. It would also establish a firm precedent on protection of intellectual property and a commitment to free trade terms and environmentally responsible energy extraction practices as high-tech energy development spreads globally.

U.S. Oil Producers Increase Productivity

Data from EOG Resources production in the Eagle Ford Shale



Source: RBN Energy, January 2015.

*IP is Initial Production.

POLICY RECOMMENDATIONS

Facilitating new opportunities for U.S. oil export would not be a panacea for sustaining the U.S. energy revolution, nor would it, by itself, assure U.S. energy or economic security. However, it would make important practical contributions to these ends. Additionally, it would send a powerful signal to partners abroad that the United States is committed to open markets and to its investment in its own energy market power. Lifting export restrictions would establish law, practice, and expectations that make sense for present market conditions, and that support the U.S. goal of expanding its economic vitality and national security.

What is the best way to begin a phased, incremental lifting of U.S. crude oil export restrictions to support more efficient markets and greater energy security? Both the administration and Congress are able to modify existing law to promote more crude export; although the administration can do this more easily, Congress must act to make permanent change. Policy change requires, first and foremost, broad education for stakeholders, policymakers, and the public on the role – and the strategic advantages – of the United States as a major energy player. It must also feature a bipartisan process to lift export rules in order to facilitate credible, stable, and lasting policy change. While it should begin with administration signaling and policy leadership, it must feature coordination between the administration and Congress, and action by both to affirm and enact legal change that permits the lifting of crude export restrictions.

A first step is the adoption of a policy framework reflecting high-level support for lifting crude oil export restrictions. Next is the implementation of new export rules that allow condensate to be freely exported from the United States and that allow more crude oil export in the near term via presidential authority. Oil export policy reform should become a priority for the National Security Council

directorates responsible for macroeconomic affairs. U.S. policy must acknowledge and address public concerns regarding perceived negative effects on gasoline prices of exporting oil. Advanced U.S. technology, specifically unconventional drilling technology and expertise, should be promoted and exported. International energy coordination must be enhanced, particularly North American energy cooperation on crude oil trade and the transatlantic dialogue on energy.



ADOPT A POLICY FRAMEWORK

Establish high-level policy support for lifting crude oil export restrictions. Senior officials at the White House, the National Security Council, and the Department of Commerce – the agency responsible for directly administering the restrictions – should clearly and publicly articulate support for greater export of domestically produced crude oil. This would signal to market participants and international partners that the administration embraces a more open energy trade policy and will work toward formal rules to implement this policy.

DEVELOP AND IMPLEMENT NEW EXPORT RULES

Allow condensate to be freely exported from the United States. It is already permissible to export “stabilized” condensate; White House and Commerce Department officials should build upon this to develop a mechanism – whether by license,

regulatory guidance, or executive determination – to allow all U.S. condensate to be freely exported from the United States. They should embrace a clear definition of condensate (such as 50 degrees API – measured at the terminal or at the port),³⁰ and offer formal written guidance to clarify the new regulatory framework for market participants, forecasters, and economic planners. Such a measure would expand and standardize export opportunities for all U.S. condensate.

Allow more crude oil export via presidential determination in the near term. The White House should initiate a policy process for allowing the export of additional increments of crude oil from the United States in the near term. Building on the limited exceptions already in U.S. law that allow for some export of crude, this process should lay out additional limited classes of crude oil export (such as light-quality crude oil, or crude oil sold to free-trade or Caribbean partners) that can be exported in the near term, in line with the areas of greatest benefit to the national interest.

Prioritize oil export policy reform in the portfolio of the National Security Council directorate responsible for macroeconomic affairs. NSC officials responsible for macroeconomic affairs should lead an interagency process that brings together representatives from relevant agencies of the executive branch to craft and coordinate a multi-step process to culminate in a full lifting of oil export prohibitions. This effort should include close coordination and consultation with members of Congress and independent non-governmental experts. It should include the drafting of recommendations that could aid lawmakers in formulating legislation to update the Energy Policy and Conservation Act. In turn, Congress should continue its legislative efforts on this topic, with the goal of passing new legislation to roll back oil export prohibitions. NSC economic officials should also lead a process to draft principles for new administration policy to lift the export ban,

which could, similarly, form the basis of an executive order to complement statutory action and accomplish this goal. In setting a new oil export policy, limited prohibitions on export should be the exception, reserved only for extraordinary circumstances.

ADDRESS PUBLIC CONCERNS

Acknowledge and address public concerns regarding perceived negative effects on gasoline prices of exporting oil. Beyond the reports and statements released by the EIA on how gasoline prices are formed and how exporting oil would affect the formation of gasoline prices, the EIA should report to Congress regularly and publicly on the effects of crude export policy reform on retail gasoline prices.



PROMOTE ADVANCED U.S. TECHNOLOGY

Advance the export of unconventional drilling technology and expertise. As part of a broader set of efforts to stimulate responsible U.S. oil production and the unencumbered export of this commodity, the Departments of Energy and Commerce and the U.S. Trade Representative should promote the export of unconventional drilling technology through foreign technical assistance programs and export promotion platforms. These officials should underscore the imperative that unconventional drilling activity must occur in an environmentally sound manner to put the development of this resource on a stable and responsible footing.



ENHANCE INTERNATIONAL ENERGY COORDINATION

Strengthen North American energy cooperation on crude oil trade. The administration should take steps to expand official communication and cooperation among Canada, the United States, and Mexico on regional oil production, transport, and trade, with the goal of enhancing the ease of oil trade between Mexico and the rest of North America. While there is already a free flow of energy between Canada and the United States, and from Mexico to the United States, this cooperation should aim to ease the flow of oil from the United States to Mexico and should develop shared principles on the regional trade of oil and the deployment of unconventional drilling technology. Additionally, administration policymakers should aim to revise regulations in these arenas. This must proceed in step with broader U.S. executive-branch activities to liberalize the export of crude oil.

Elevate the transatlantic dialogue on energy. The United States must enhance diplomatic, security, and trade discussions on the role of energy in transatlantic relations; specifically, it should propose the inclusion of an energy title that deals with transatlantic oil trade in the Transatlantic Trade and Investment Partnership talks. This would more broadly support a coherent and integrated treatment of trade in the negotiations, especially important for this key commodity, and would give the United States valuable negotiating leverage with counterparts. Additionally, such a dialogue

would help U.S. national security policymakers better appreciate the energy and economic vulnerabilities that European allies face, and how transatlantic partners can best collaborate to mitigate them.

CONCLUSION

Promoting the export of crude oil from the United States is an important step toward sustaining and expanding the benefits of U.S. energy abundance. It would also send a powerful strategic signal, indicating to international counterparts and economic planners that the United States plans to lead in the energy arena in the years to come. As proliferating global security challenges make oil market volatility more and more likely, and as many world economies struggle with tepid growth, adopting pragmatic policies, such as the promotion of U.S. crude oil export, is an important investment in the strength and resiliency of the U.S. economy and the U.S. ability to lead internationally.

The focus on responsible natural resource stewardship will only grow in the years ahead, a reality that makes conservation, efficiency, and climate change mitigation necessary complements to any conventional energy policy. Conventional energy policy is central, nevertheless, to economic and security strategy. Achieving the strongest position for the United States on these fronts in the years ahead demands smart energy policy, including the prioritization of free trade in energy, critically including unencumbered export of U.S. crude. This will offer benefits in the future as the United States maintains a powerful role in this strategic and important energy commodity market.

ENDNOTES

1. The United States became the top global producer of petroleum, which includes crude oil, in 2013, and now produces roughly 9.4 million barrels per day (mb/d) of crude oil. Adam Sieminski, Administrator, U.S. Energy Information Administration (EIA), "Implications of the U.S. Shale Revolution" (Presentation at US-Canada Energy Summit, Chicago, Illinois, October 17, 2014), http://www.eia.gov/pressroom/presentations/sieminski_10172014.pdf; EIA, "This Week in Petroleum," April 15, 2015, <http://www.eia.gov/petroleum/weekly/crude.cfm>. U.S. oil producers have helped to cut net imports by roughly 26 percent since 2008 and will account for the greatest source of global supply growth through 2020. EIA Weekly Imports and Exports data, http://www.eia.gov/dnav/pet/pet_move_wkly_dc_NUS-Z00_mbbldpd_w.htm; and International Energy Agency, *Oil Medium-Term Market Report 2015*, 41.
2. Export of U.S. crude is largely banned; narrow exceptions permit export to Canada, some export from Alaska and California, exchange of strategic petroleum reserve oil, export of crude with foreign origin not commingled with domestic crude, and export consistent with presidential findings and certain international agreements. Export of lightly processed condensate is also permitted, as was clarified in December 2014. 15 C.F.R. §754.2; Bureau of Industry and Security, U.S. Department of Commerce, "FAQs – Crude Oil and Petroleum Products December 30, 2014," <http://www.bis.doc.gov/index.php/policy-guidance/faqs>.
3. The foundation and primary statutory basis of the crude export ban is the Energy Policy and Conservation Act of 1975. 42 U.S.C. §6212, "Domestic use of energy supplies and related materials and equipment."
4. The process of refining crude oil yields refined products including, but not limited to, gasoline, kerosene, distillates, liquefied petroleum gas, asphalt, lubricating oils, diesel fuels and residual fuels. EIA, Glossary, <http://www.eia.gov/tools/glossary/index.cfm?id=8>.
5. A variety of recent studies offer these economic and market-oriented conclusions, including: Stephen P.A. Brown, et al., "Crude Behavior: How Lifting the Export Ban Reduces Gasoline Prices in the United States" (Washington, DC: Resources for the Future, March 2014); Harry Vidas, et al., "The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade and Consumer Costs" (Fairfax, VA: ICF International, March 2014); Mohsen Bonakdarpour, et al., "US Crude Oil Export Decision: Assessing the Impact of the Export Ban and Free Trade on the US Economy" (Englewood, CO: An IHS Energy/IHS Economics Report, May 2014); Charles Ebinger and Heather L. Greenley, "Changing Markets: Economic Opportunities from Lifting the U.S. Ban on Crude Oil Exports" (Washington DC: The Brookings Institution, September 2014); Thomas J. Duesterberg, et al., "Lifting the Crude Oil Export Ban: The Impact on U.S. Manufacturing" (Washington, DC: The Aspen Institute, October 2014); Jason Bordoff and Trevor Houser, "Navigating the U.S. Oil Export Debate" (New York, NY: Columbia University, School of International and Public Affairs [SIPA], Center on Global Energy Policy, January 2015); Mohsen Bonakdarpour, et al., "Unleashing the Supply Chain: Assessing the Economic Impact of a US Crude Oil Free Trade Policy" (Englewood, CO: An IHS Energy/IHS Economics report, March 2015); Kenneth B. Medlock III, "To Lift or Not to Lift? The U.S. Crude Oil Export Ban: Implications for Price and Energy Security" (Houston, TX: Rice University, Baker Institute for Public Policy, Center for Energy Studies, March 2015).
6. Vidas, et al., "The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade and Consumer Costs"; Bonakdarpour, et al., "US Crude Oil Export Decision: Assessing the Impact of the Export Ban and Free Trade on the US Economy"; and Robert Baron, et al., "Economic Benefits of Lifting the Crude Oil Export Ban," (Washington, DC: NERA Economic Consulting report prepared for the Brookings Institution, September 9, 2014),
7. On the lower end of the spectrum of estimates for increases in domestic oil production associated with lifting the ban on crude export, ICF International estimated an increase by approximately 110,000 to 500,000 barrels per day by 2020. On the higher end of the spectrum, a study by NERA Economic Consulting prepared for the Brookings Institution estimated that oil production would increase by 1.3–2.8 million barrels per day in 2020 in the event the ban were lifted completely in 2015. Vidas, "The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade and Consumer Costs," 10; and Baron, et al., "Economic Benefits of Lifting the Crude Oil Export Ban," 138, 139, 146, and 147.
8. Analysis by ICF International predicts that average U.S. wholesale product prices would decline by 1.4–2.3 cents per gallon between 2015 to 2035 due to crude oil export. Vidas, "The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade and Consumer Costs," 11. IHS estimates that gasoline prices could decline 8–12 cents per gallon on average from 2016–2030 in the absence of the oil export ban. Bonakdarpour, et al., "US Crude Oil Export Decision," V-3.
9. U.S. Energy Information Administration, "What Drives U.S. Gasoline Prices?" (Washington, DC: The U.S. Energy Information Administration, October 2014), 9.
10. Vidas, "The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade and Consumer Costs," 11; and Bonakdarpour, et al., "US Crude Oil Export Decision," V-3.
11. Congressional Budget Office (CBO), "The Economic and Budgetary Effects of Producing Oil and Natural Gas From Shale" (December 2014), 2.
12. Bonakdarpour, et al., "Unleashing the Supply Chain," 4.
13. Bonakdarpour, et al., "Unleashing the Supply Chain," 18.
14. Baron, et al., "Economic Benefits of Lifting the Crude Oil Export Ban," 157, 165.
15. Russell Tarver and Rob McManmon, "Recent improvements in petroleum trade balance mitigate U.S. trade deficit," EIA, *Today in Energy*, July 21, 2014, <http://www.eia.gov/todayinenergy/detail.cfm?id=17191>.
16. Japan Ministry of Economy, Trade and Industry, *Import of Crude Oil by Area and Country* (page last updated March 2015), accessed through <http://www.meti.go.jp/statistics/tyo/sekiyuka/pdf/se201401kakji.pdf>; Energy Information Administration, *China Analysis Brief* (last updated February 4, 2014), <http://www.eia.gov/countries/cab.cfm?fips=ch>.
17. Shawn Donnan, "Europeans urge US to push power button on trade deal," *Financial Times*, July 27, 2014.

18. Florence Tan and Meeyoung Cho, "Update 1 – U.S. sells first condensate to Asia in at least 40 years – sources," *Reuters*, July 24, 2014, <http://www.reuters.com/article/2014/07/24/gs-caltex-condensate-usa-idUSL4N0PZ0ZS20140724>.
19. Chui-Wei Yap, "China Ends Rare-Earth Minerals Export Quotas," *The Wall Street Journal*, January 5, 2015.
20. Carlos Pascual, Fellow, Center on Global Energy Policy, Columbia University, and Senior Vice President, IHS, "U.S. Crude Oil Export Policy," Statement to the Energy and Natural Resources Committee, U.S. Senate, March 19, 2015, 8.
21. David S. Cohen, Under Secretary for Terrorism and Financial Intelligence, U.S. Department of the Treasury, "Written Testimony of David S. Cohen," Statement to the Committee on Foreign Relations, U.S. Senate, January 21, 2015, 3.
22. EIA data on "Unplanned liquid fuel production disruptions, countries outside of the Organization of the Petroleum Exporting Countries" and "Unplanned crude oil production disruptions, Organization of the Petroleum Exporting Countries," U.S. Energy Information Administration, *Short-term Energy and Summer Fuels Outlook*, released April 7, 2015.
23. EIA data on "U.S. Crude Oil Production," U.S. Energy Information Administration, *Short-term Energy and Summer Fuels Outlook*, released April 7, 2015; Carlos Pascual, "U.S. Crude Oil Export Policy," 8.
24. Condensate is a light liquid hydrocarbon often derived from natural gas production and recovered from lease separators or field facilities at natural gas wells. This commodity normally enters the crude oil stream after production, and if it is derived from processing it is eligible for export. EIA, Glossary, <http://www.eia.gov/tools/glossary/index.cfm?id=C>; Max Pyziur, "Condensate: An EPRINC Primer" (Washington, DC: EPRINC, February 4, 2015), 3, 4.
25. European Commission, "EU Crude Oil Imports" statistics, <http://ec.europa.eu/energy/en/statistics/eu-crude-oil-imports>.
26. Saudi Arabia has usually maintained more than 1.5–2 mb/d of spare capacity that can be tapped on short notice. EIA defines spare capacity as volume of production that can be brought on within 30 days and sustained for at least 90 days. EIA, "What Drives Crude Oil Prices? An analysis of 7 factors that influence oil markets, with chart data updated monthly and quarterly," <http://www.eia.gov/finance/markets/supply-opeccfm>.
27. Many U.S. producers have seen remarkable improvements over the last several years in well productivity and in the time required to bring on new production. No two wells, or the financing required to drill them, are alike, but the productivity and rapidity of production gains can be illustrated by consultancy RBN using data from EOG Resources, a leading producer in the Eagle Ford region, which accounts for approximately 18 percent of U.S. crude oil production. RBN's analysis indicates that, since 2011, the number of days required for EOG Resources to drill a well in the Eagle Ford region has fallen by 83 percent to 9 days; the number of wells each rig can drill per year has expanded by 150 percent to 41; and the 30-day average initial production rate has increased by 44 percent to 767 barrels per day. EIA, "Drilling Productivity Report," April 13, 2015, <http://www.eia.gov/petroleum/drilling/#tabs-summary-2>; Rusty Brazier, "The Energy Market Impacts of Low Oil Prices: How Low? How Long?" (Washington DC: Center for Strategic and International Studies, January 28, 2015).
28. Brian Spegele, "Oil Producers Sound Retreat from China," *The Wall Street Journal*, March 26, 2015.
29. U.S. Energy Information Administration, *Annual Energy Outlook 2015 with Projections to 2040*, April 2015, 18.
30. API gravity is "the American Petroleum Institute measure of specific gravity of crude oil or condensate in degrees. An arbitrary scale expressing the gravity or density of liquid petroleum products." EIA, Glossary, <http://www.eia.gov/tools/glossary/index.cfm>.

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