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LIFTING THE CRUDE OIL EXPORT BAN

HEARING

BEFORE THE

COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING THE POSSIBILITY OF LIFTING THE CRUDE OIL EXPORT BAN

JULY 28, 2015

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C O N T E N T S

TUESDAY, JULY 28, 2015

WITNESSES

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LIFTING THE CRUDE OIL EXPORT BAN

TUESDAY, JULY 28, 2015

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 9:36 a.m., in room SD–538, Dirksen Senate Office Building, Hon. Richard C. Shelby, Chairman of the Committee, presiding.

OPENING STATEMENT OF CHAIRMAN RICHARD C. SHELBY

Chairman SHELBY. The hearing will come to order.

The Committee convenes today to receive testimony regarding the prospect of lifting the ban on U.S. crude oil exports. Approximately 40 years ago, Congress imposed the oil export ban as part of a comprehensive set of price and export controls on a variety of industries. We learned in subsequent years that such anticompetitive policies hampered job creation and harmed American consumers.

Despite long outliving its purpose, the ban on the export of crude oil remains in place today, with only a few exceptions. And due to the advancement of technology and other techniques that facilitate oil extraction, the U.S. has undergone an energy boom during the past several years. In fact, it has become the world's largest total producer of oil, according to the Energy Information Administration. And as a result, the oil and gas industry has added tens of thousands of jobs, with the potential to significantly bolster this number as production increases.

As others have noted, there is often confusion about the impact that lifting the crude oil ban will have on gasoline prices at the pump. To be clear here, prices at the pump are largely determined by the world oil market, of which the U.S. is just one of many countries that participates.

Studies from Columbia University, the Brookings Institution, and the Government Accountability Office, among others, cite that lifting the ban is likely to reduce the price of gasoline for American consumers by increasing the supply of crude oil available to the world market. Consumers, U.S. jobs, and economic growth could all benefit from an increase in the domestic production of oil. The export ban in place today is economically inefficient by artificially discouraging production.

Lifting the ban could also benefit the geopolitical position of the U.S. and reduce worldwide reliance on OPEC Nations and Russia, not to mention Iran, which could be soon ramping up oil production under the terms of the Administration's nuclear deal.

Today's hearing will discuss the impact of reversing the oil export ban, a policy within this Committee's jurisdiction. It is one that I believe has held back our economic potential for at least 10 years.

Today we will welcome the testimony first of Senator Murkowski, who chairs the Energy and Natural Resources Committee, as well as the testimony of Senator Hoeven, who is a very valuable member of the Appropriations Committee. Both have advanced this issue in multiple ways and have valuable insights to share. Following their testimony, we will hear from a panel of academic and industry experts.

I would also like to acknowledge our own Senator Heitkamp right here with us, who has worked tirelessly on this issue. Her efforts, along with our other colleagues, have led to increased public awareness of the facts and have inspired today's hearing.

Before I turn to the distinguished Senators from Alaska and North Dakota for their testimony, I would like to recognize our Ranking Member, Senator Brown.

STATEMENT OF SENATOR SHERROD BROWN

Senator BROWN. Thank you, Mr. Chairman, for holding today's hearing. Thank you to Senator Murkowski and Senator Hoeven for joining us. I look forward to hearing your testimony and other panelists today.

We are before the Banking Committee to discuss oil exports because of our jurisdictional responsibility for export controls and export licensing. Oil exports is an important issue for consumers and manufacturers and workers in the oil-refining, petrochemical, and transportation sectors. It is important for national security, for rail safety, for our environment, and for our long-term climate policy to get this right.

Changes to this policy would affect different areas of the country very differently: more production in some areas, potentially negative impacts on refineries and their workers, and others. I have spoken with Senators Tester and Heitkamp about the tremendous impact fracking has had on their part of the country as it is beginning to have in parts of Ohio as well.

Other Members come to this issue with different perspectives. Some may not think of Ohio as an energy-producing State, but by the 1880s, Cleveland's John D. Rockefeller had developed significant fields in Lima, Ohio, and Findlay, Ohio, and started a company called Standard Oil. What this has meant for Ohio manufacturers and consumers has been significantly lower natural gas prices, increasing competitiveness, and allowing families to stretch budgets further. Yet, in the opinion of some on the panel today, the crude oil export ban is a relic of price control policies of the past, which does not take into account the recent surge of domestic production that has led to a significant reduction in imported oil. This boom has, without a doubt, increased our Nation's energy security, a goal long sought by Congress and previous Administrations.

It is my understanding that the recent production increase has resulted in billions of dollars of investments in our Nation's refineries and in the reduction of imports. Lower crude prices have benefited domestic refineries, and as a result, consumers are paying less at the gas pump.

I want to hear from witnesses about the effect ending the export ban would have on prices, on domestic drilling, on greenhouse gas emissions, and whether it would increase pressure to drill on Federal lands or other environmentally sensitive areas of the country. While this is often described as an all-or-nothing proposition—ending the ban or maintaining the status quo—I would like to hear if there are alternatives.

For example, should the Administration use its existing legal authorities to expand licensing? Doing so might give us more control over the process in the medium-to-long-term when some of the major shale plays currently in production tap out. This is similar to our current approach for certain types of condensates.

Finally, over the past month, I have had occasion to visit several communities in Ohio that have expressed concern about the increasing number of crude-by-rail trains moving through their communities en route to refineries on the east coast. I introduced legislation last week to get the most dangerous cars off the tracks, get safer tankers on the tracks, and tanker cars, and provide funding to communities at risk for these disasters. I think that is part of the answer, but these firefighters, elected officials, and emergency management professionals are concerned about the high volume of crude oil moving through their communities, so often heavily populated areas, even with additional precautions.

I look forward to hearing from my colleagues today. Thank you.

Chairman SHELBY. Thank you, Senator Brown.

Senators Murkowski and Hoeven, I want to thank both of you for offering your time here today. I know that you both are going to have to go to other committees. Your written testimonies will be made part of the record.

Senator Murkowski, you proceed first.

STATEMENT OF LISA MURKOWSKI, U.S. SENATOR FROM THE STATE OF ALASKA

Senator MURKOWSKI. Thank you, Mr. Chairman. I appreciate the opportunity to be before the Banking Committee to talk about an issue that I think is long overdue here in the U.S. Senate. It is important to be in discussion about this 40-year-old ban that we have had in place in this country that prohibits the export of crude oil from the United States.

Keep in mind that it is perfectly legal, fair, legitimate, done every day, to send our refined products overseas. It is only the crude oil that we are limited. And I will just note for those that are interested in interesting factoids, there are three items that are on this short list for—that are prohibited from export within this country: one is crude oil; the other is horse meat for slaughter; and the third is the export of western red cedar.

Now, we are not going to go into western red cedar or the slaughter of horse meat here this morning, but I think it is important to note that crude oil has been on that list now for some 40-odd years.

I brought this issue up about a year-and-a-half ago before a group of energy experts around the world, and I called at that time for a lifting of this outdated ban. And rather than urging legislative action, I acknowledged that this was something that had been in place for decades, that not only Members of Congress needed to be educated on the issue, but people around the country needed to understand why the ban was put in place in the first place and why now 40 years later it is time to lift it.

And so I called for 2014 to be the year of the report, and, boy, did they do the reports. Over a dozen reports have come out looking very critically at this issue, speaking to many of the points that Senator Brown has raised. Most pertinent is: What is this going to mean to me and the price that I am paying at the pump? That is what everybody really wants to know. We can talk about the high policy initiative, but at the end of the day, they wanted to know: Is it going to raise the price at the pump? And report after report, study after study, says no. So that is important for us as policymakers to understand. It is also important for people around the country to understand.

As we have seen through this year of the report, oil exports is an opportunity—this is another particular, Mr. Chairman, to become an energy superpower, to send a signal to the world that we are ready to lead on issues of energy and the environment to empower our allies and to compete against our foes in a way that does not involve sending troops in; it does not involve the boots on the ground. It is effectively using our energy resources as a diplomatic tool, as a strategic asset, to help lift up our economy, create jobs, while at the same time lowering gasoline prices and increasing domestic energy production. And I say energy because it is not just oil. We know that oil and natural gas are linked as well.

I am very pleased to be able to work with my colleagues from North Dakota. Senator Heitkamp and I have worked on this. She has introduced S. 1312, the Energy Supply and Distribution Act, and S. 1372, which is the American Crude Oil Export Equality Act, working with Senator Hoeven throughout the process on these issues. But both of these bills lift the ban on oil exports while at the same time preserving the energy authority of the President. I think that that is an important aspect of the legislation that you will consider.

You are going to hear from good witnesses this morning, but let me just make two very quick points.

The deal that the Administration has presented us concerning Iran's nuclear program will entail the lifting of sanctions against Iranian oil in the near future. And analysts can differ about the exact timing of when we may see the additional Iranian barrels entering the global market. The country already exports over a million barrels per day. But whether it is 6 months or whether it is 18 months, Iranian oil is returning as a result of this deal.

So what does that mean to us in this country, a Nation that has been told, "You cannot export"? We are going to let Iran go out onto the global market, engage in sales of their oil, allow them to amass resources and wealth as a benefit of this, while at the same time we are going to tell our U.S. oil producers, "No, you may not"? We are effectively sanctioning U.S. oil producers if we lift the sanctions on Iranian oil and do not address our ability to compete in that global market here.

American oil producers will be uniquely disadvantaged by this agreement. The antiquated ban on oil exports means that American workers will be unable to sell American oil to some of our closest oil allies. Right now, Japan is receiving oil from Iran. They would much rather be receiving oil from us. South Korea, the same. The Iranian Government is going to be able to sell its own oil to our friends, to our trading partners, and our companies have to sit with their hands behind their back.

I am not even going to address the issue of what exactly Iran will be doing with its new-found revenues. I think we all have suspicions about that. That is a subject for another day. And I know that it is a subject that this Committee is going to be dealing with.

Just very briefly, we all know what is going on on the floor with the Highway Trust Fund and the reauthorization. The proposal currently that is on the table is 101 million barrels sold from the Strategic Petroleum Reserve, which is offered as an offset to the 3-year extension. This oil is going to be dumped onto a saturated domestic market, and I know it does not happen all on that first day. It goes out over a period of years. But, again, Federal oil will be competing with American oil because American oil cannot be exported right now. I think that this is reckless. I do not think that this makes sense.

So I think both the Strategic Petroleum Reserve and the Iranian sanctions issues are issues that really illustrate just how important it is that we lift this ban.

So I thank the Committee for taking this issue up, know that in the Energy Committee we, too, are looking at it. But these are issues that are timely for this day, and I appreciate your focus.

Chairman SHELBY. Thank you, Senator.

Senator Hoeven.

STATEMENT OF JOHN HOEVEN, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Senator HOEVEN. Chairman Shelby, thank you for inviting me to be with you, Ranking Member Brown, good to be here with your Committee. I am also very pleased to be here with our Chairman on the Energy Committee. I serve on the Energy Committee with her, and she does a great job of leading our Energy Committee, and, obviously, this is both a very important issue and a very timely issue, so I am pleased that you are holding this hearing today.

Why is it important that we lift the ban on exporting oil? Quite simply because it is good for our economy. It will create jobs. It is important for our national security by helping us achieve energy security. And it is good for the consumer at the pump.

I repeat that: It benefits the consumer, it benefits families, it benefits small businesses across this Nation.

There have been studies put out by the Energy Information Administration and many others that support that case. So I am very pleased to be a cosponsor with Senator Murkowski, Senator Heitkamp, and others on the Energy Supply and Distribution Act of 2015. And I know that you have jurisdiction on that bill. We have jurisdiction, obviously, on the Energy Committee, and we are working very hard to advance it, and we appreciate working with you, with your jurisdiction on the issue as well.

So why is it good for the consumer at the pump? It might seem counterintuitive in some respects. But the reality is that gasoline moves off the Brent price. So North Sea oil is the Brent price, and that is the global price. Oil is a global commodity. So when Brent crude pricing moves up, gasoline prices at the pump move higher. When it moves down, they move lower.

Well, what drives that? What drives that is global supply, supply and demand. More supply puts downward pressure on prices; more demand, less supply, prices go up.

But we cannot compete in that global market in the same way as other countries because our companies are not allowed to export. So the benchmark price for our companies is West Texas Intermediate crude. That typically trades at anywhere from a $5 to $10 discount to Brent crude from the North Sea.

So think about that for a minute, Mr. Chairman. Let us say that you had the Shelby Retain Chain and——

Chairman SHELBY. I wish.

Senator HOEVEN. And maybe you do. I do not know.

[Laughter.]

Senator HOEVEN. But let us say you had to compete against Walmart every day, and for every one of your products, you got $8, $10 less for every one of your products. How would you do in that competition? How long would you stay in business? Would you be a growing enterprise or a shrinking enterprise?

And so that is the choice our industry faces. Are we going to help our industry grow? And understand that as we do, that creates more supply. Let me give you an example.

When I started as Governor in North Dakota, in 2000, North Dakota produced less than 100,000 barrels of oil a day. But we worked to build the kind of climate where people would invest in our State, develop new technologies, make investment, hire people, and they developed the Bakken shale. You are going to hear today, I think, from some people like Harold Hamm and Rick Muncrief who are here, who have built large companies producing more energy in our State. We went from producing less than 100,000 barrels a day; today we produce 1.2 million barrels a day—1.2 million barrels a day. That is part of the reason oil prices are going down because of this development in the Bakken shale in North Dakota and the development in the Eagle Ford in Texas.

But the question, Mr. Chairman, is: Are we going to continue to produce more oil, more energy, more economic growth, more jobs, more national security through energy security in this country? Or are we going to go back to the days when OPEC commanded the market?

Chairman Murkowski made a very important point. The President has put an agreement in front of this body right now that would lift the sanctions that were put in place by one of your Members here, Senator Menendez, along with Senator Kirk, and we passed that legislation as part of the Defense Authorization Act in 2011. At that time Iran was producing 2.6 million barrels of oil a day and selling it. Today it is 1.1 million barrels per day. Those sanctions have reduced Iran's oil exports on a daily basis from 2.6 million barrels a day to 1.1 million barrels a day. That is hundreds of millions of dollars every week. That is billions of dollars a year, right?

So at the same time, if that agreement is approved, that they are going to continue to produce more, are we going to make it harder for our industry to grow? Are we going to see our industry produce less?

So this is a very important issue. This is a very timely issue. Studies have been done. The impacts are clear. Now we need to move forward because any way you look at it, at the end of the day, this is about more energy for this country. This is about economic growth for this country. This is about jobs for this country. And it will benefit the consumer at the pump and our small businesses because more supply will help keep that world price lower, and it will make sure that our gasoline prices are lower here and that we have the energy we need to continue to grow and prosper.

Thanks, Mr. Chairman, for inviting me to be here with you. I appreciate it very much.

Chairman SHELBY. Thank you, Senator Hoeven. I want to thank both of you Senators for appearing with us today.

Our witnesses on the second panel, I will call them up now:

The Honorable Michèle Flournoy, cofounder and chief executive officer, the Center for a New American Security;

Mr. Richard Muncrief, president and chief executive officer, WPX Energy;

Dr. Benjamin Zycher, John G. Searle Scholar, the American Enterprise Institute;

And Mr. Leo Gerard, international president, United Steelworkers, and chair of the AFL–CIO Policy and Legislative Committee.

All of your written testimony will be made part of the record, and if you could sum up your testimony, we have got a lot of people here, and we want to ask you a lot of questions today.

We will start with you, Ms. Flournoy. Proceed.

STATEMENT OF MICHÈLE FLOURNOY, CHIEF EXECUTIVE OFFICER AND COFOUNDER, CENTER FOR A NEW AMERICAN SECURITY

Ms. FLOURNOY. Senator Shelby, Ranking Member Brown, and Members of the Committee, thank you very much for inviting me here to participate in this hearing.

I am not an energy expert or an economist, but I do know a lot about national security, and so my testimony today is really focused on the national security implications of the proposed lifting of the ban on crude exports.

As you mentioned, Mr. Chairman, over the last several years, the unconventional energy revolution in the United States has brought us a new era of energy abundance, and you went through many of the measures of that, and so I will not repeat them at the moment. But, remarkably, after decades of concern about a situation of energy scarcity, we now find ourselves in an era of energy plenty.

The American energy revolution has had profound and positive economic benefits for our country, as has been noted, increasing our GDP, helping to drive our economic recovery, improving our balance of trade, reinforcing the continued primacy of the U.S. dollar in global markets, and helping to stabilize the global energy market in a period of pretty unprecedented supply disruptions.

But to date, again, as was mentioned, the United States has not chosen to become a major exporter of crude oil despite the potential and available supplies. The crude oil ban, the export ban, stems from antiquated laws and policies that were put in place back in the 1970s in a very different situation. Not only do those constraints make energy-driven economic growth less than what it could be in the United States, they also hamper the ability of U.S. national security leaders to fully leverage our new energy position and reap some of the strategic benefits presented by the American energy revolution. So today we really have an extraordinary opportunity to enhance both our economic vitality and our national security by lifting the ban.

Lifting the ban would yield a variety of security dividends, in my view. First and foremost, it would strengthen our economy, as has been said by numerous studies. Our economy is the foundation of our national security, and that would strengthen our ability to play a much needed leadership role in both global security and global economic affairs.

I think it cannot be underestimated the degree to which America's rise as a true energy power could impact perceptions of American global power and counteract what I think is an erroneous narrative of U.S. decline.

Stimulating oil production growth could also expand our energy security by increasing oil supply to the global market from a reliable and stable producer. When more supply originates from producers who are not vulnerable to political instability or conflict or threats to their energy infrastructure, the overall market becomes more stable. Lifting the ban would also allow U.S. oil producers to be more responsive to market signals and give U.S. policymakers more options for using the Strategic Petroleum Reserve in ways that could counteract hostile attempts by foreign producers to manipulate prices. All in all, this would greatly benefit American consumers.

In addition, allowing for U.S. oil exports would enhance the energy security of key partners, our allies ranging from Japan to India to many of our European partners. Indeed, many of our closest allies have called for, have asked for a lifting of the ban. Whether it is European countries who depend on Russia for 30 percent of their supplies—and Russia has clearly demonstrated its willingness to use energy as a coercive tool of its foreign policy—or Japan that relies on Middle Eastern oil, 80 percent of its supplies are from the volatile Middle East, these are allies whose security would be strengthened by diversifying the supply of oil from which they could draw on. And as their economic and energy security increases, they become more capable allies for us, more capable partners for us as we approach the full range of shared security challenges regionally and globally.

Today I find it strange that the United States is the only advanced country that bans crude oil exports. I think at this point in time lifting the ban would also send a very powerful signal of the United States' commitment to free trade and open markets. This is particularly important when we are in the midst of putting the final touches on perhaps the most important trade negotiation of our generation, the Trans-Pacific Partnership, which will have enormous economic and strategic implications for the United States and Asia.

Lifting the ban would also provide us with greater flexibility to use sanctions as a tool of our statecraft in the future. Imposing sanctions that require taking oil off the market can be very effective, but it is very important to have adequate alternative oil supplies to ensure that our own interests and that of our allies are protected when those sanctions are used.

So, in sum, let me just conclude by saying in addition to the economic impacts that so many have cited, I believe that lifting the ban on U.S. exports of crude oil could give us a real boost in terms of our national security, giving U.S. policymakers an extraordinary opportunity not only to enhance our economic vitality but also our national security and our geopolitical leverage with allies vis-a-vis adversaries and so forth.

Let me just conclude by saying we should not consider this alone. This needs to be pursued alongside responsible policies to promote natural gas exports, greater energy efficiency, and low carbon fuel sources here at home and abroad. But in that broader context, this is a piece of the puzzle that definitely makes sense for us economically and strategically.

Thank you, Mr. Chairman.

Chairman SHELBY. Mr. Muncrief.

STATEMENT OF RICHARD MUNCRIEF, PRESIDENT AND CHIEF EXECUTIVE OFFICER, WPX ENERGY

Mr. MUNCRIEF. Chairman Richard Shelby, Ranking Member Brown, Members of the Committee, my name is Rick Muncrief. I am the president and CEO of WPX Energy. Thank you for the opportunity to speak to the Committee today. It is an absolute honor to be here.

WPX Energy is an independent oil and gas producer based in Tulsa, Oklahoma, that employs roughly 1,000 people. Our teams are working across the West in some of America's most prolific basins in the States of North Dakota, New Mexico, and Colorado.

WPX strongly supports ending the crude oil export ban. We encourage Congress to pass legislation to achieve this goal, and we fully support the efforts of Senator Heitkamp and Senator Murkowski.

Today I will outline three main reasons why the crude oil export ban should be eliminated:

First, allowing crude exports would have an important positive impact on economic development and job creation.

Second, it would increase the supply of oil on the world oil markets, resulting in less volatility in those markets and ultimately lower prices at the pump for American consumers.

Third, it will strengthen our Nation's national security.

Let me take each one of these arguments in turn. Our industry has overcome virtually every technical challenge, allowing us to safely develop our energy resources. Today WPX is drilling 2 miles deep and up to 3 miles across, or laterally, to hit small targets. And in doing so, it greatly limits the activity or the impact on the surface of the land. In one of our basins, we were able to reduce the acreage that we need for drilling by 75 percent by drilling 20, and sometimes 30 wells from one single surface location. But our growth is being restricted by banning crude oil exports since WPX and companies just like ours are not able to compete in the global marketplace. This impacts energy producers along with all the other companies up and down the supply chain who provide goods and services.

If the crude oil export ban were lifted, the positive economic development and job growth would be significant. The oil and gas industry has been an important economic driver and engine that has promoted opportunities for workers and small businesses, expanded revenue for State and local governments, and increased investments all around the country.

During the recent economic downturn, the energy sector was continually identified as the "one bright spot of the economy." We need to keep that bright spot shining by allowing U.S. companies access to world markets.

WPX operates in Indian country, and as part of our supply chain, we hire Native American service contractors whenever possible. In North Dakota alone, we work with more than 450 vendors and service providers, many of which are Native American owned or operated. We infuse $6.5 million into the statewide payroll and provide more than $150 million in royalties for oil production. That is real money, and it is only our company in one State.

Lifting the ban would also reverse an existing quirk in the current law. Refined products like gasoline and diesel are already eligible for export while crude oil is not. Would we ever adopt a policy that allows American bakers to export bread but does not allow American farmers to export wheat? Of course not. And I am a western Oklahoma wheat farmer, too. But that is essentially our policy in the energy sector.

Ending the crude oil export ban helps reverse this unfair policy while benefiting U.S. companies and American workers.

Second, lifting the ban would help consumers. Numerous studies and countless economists have outlined how a free trade policy on crude oil would increase the global supply of oil, which would ultimately put downward pressure on prices of petroleum products that are refined here at home.

Third, this policy would strengthen our national security. A robust domestic supply of energy based on free trade and an open market enhances our energy self-sufficiency, a critical component of economic and military strength during times of crisis.

Beyond that, our ability to help our allies with their own energy security benefits our national security as well. Our closest allies are looking for diversification in their energy suppliers so that they are less reliant on unstable or unfriendly countries for their energy needs. The United States would be an attractive alternative to global oil exporters and would lower the economic risk that our friends face.

For these reasons, WPX Energy supports efforts to lift the crude oil export ban. Taking action now is the right thing to do. It would bring to an end an energy policy that stifles job growth, punishes American workers and consumers, and puts our country at risk.

I ask that my written testimony be submitted for the record, and I look forward to answering any questions you may have. Thank you very much.

Chairman SHELBY. Thank you.

Dr. Zycher.

STATEMENT OF BENJAMIN ZYCHER, JOHN G. SEARLE SCHOLAR, AMERICAN ENTERPRISE INSTITUTE

Mr. ZYCHER. Thank you, Mr. Chairman and distinguished Members of this Committee.

The export ban on crude oil was justified on the basis of two fallacies: first, that the 1973 oil embargo was the cause of the higher oil prices and market disruptions experienced in the early 1970s; second, that a ban on exports of crude oil would insulate the U.S. economy from the effects of international supply disruptions. Those assumptions are inconsistent with the basic economic truth. There can be only one price for oil in the world market. That is why the 1973 embargo had no effect at all, notwithstanding conventional wisdom.

Since there can be only one price in the world oil market, the attempt by Arab OPEC to impose a higher price on the U.S. and a few others did not succeed. Market forces reallocated oil so that international prices were equal everywhere. The actual cause of the worldwide price increase was the production cutback in the Persian Gulf.

Similarly, the gasoline lines and market disruptions were the result of the price and allocation controls imposed upon the domestic market. They were not caused by the embargo. Notice that there was no embargo in 1979, but there was a production cutback in the Persian Gulf as a result of the overthrow of the Shah of Iran. And, again, there were price and allocation controls, and, again, there were gasoline lines and market chaos.

In short, the argument that the export ban insulates the U.S. economy from the effects of supply disruptions was and remains fundamentally flawed. Accordingly, the intellectual and policy justifications for the export ban remain bankrupt to this day.

If the export ban were to be removed, domestic crude oil prices would increase very modestly, by approximately $2 to $3 per barrel. That would be a straightforward supply-and-demand effect reducing the difference between the prices for crudes produced domestically and overseas. An obvious example is the price difference between West Texas Intermediate and Brent crudes, about $6 per barrel as of this morning, a difference made artificially larger by the export ban.

There is the further matter that an increase in crude exports would have the effect of strengthening the dollar. However difficult to measure, that effect is real, and it would put some downward pressure on the dollar prices of crude oil internationally, thus offsetting to some degree the supply demand effect that I have just mentioned. And that stronger dollar would increase the aggregate size of the U.S. economy, an effect that would take the form of a reduction in the overall price of the domestic basket of goods and services.

Given so small an oil price effect of ending the export ban, it is not plausible that the narrow employment effects in refining and related sectors would be significant. Indeed, those impacts would be difficult to measure given the normal fluctuations of such employment on an annual basis. But in any event, those employment effects would be offset by increased employment in other sectors and by the positive aggregate employment effects of a larger economy and the increased labor demand resulting from it.

Because gasoline and other refined products are not included in the export ban and, thus, are traded freely in the international market, it is difficult to see how a repeal of the export ban on crude oil could increase product prices. Instead, ending the export ban actually would put downward pressure on product prices for two reasons:

First, the increase in the international supply of crude oil created by increased U.S. exports would reduce both crude and product prices overseas. Accordingly, product prices in the U.S. would be reduced because, again, products are traded more or less freely in the world market, creating the one-price outcome.

Second, the export ban has distorted the allocation of differing types of crude oil among refineries. An end to the export ban would improve the alignment of refinery and crude oil characteristics, particularly in the U.S., thus reducing the cost of producing refined products. As an aside, this effect clearly would be one of the hidden benefits of the Keystone XL pipeline were it to be constructed.

Let me make two final points.

First, the reduction in international crude prices would have beneficial effects in terms of reducing foreign exchange earnings by several unsavory regimes, the Iranian and Russian ones in particular. Among other impacts, that would be likely to yield an increase in energy security in Europe.

Second, the defense of free trade is a crucial component of the larger defense of capitalism and freedom. The export ban on crude oil was from the very beginning a deeply perverse policy implemented in a futile attempt to mitigate the adverse effects of other Government policies. Ending the ban would be an important component of a larger reform agenda for this Congress.

I thank you again, Mr. Chairman. I would be very pleased to address any questions that you or other Members of this Committee might have.

Chairman SHELBY. Thank you.

Mr. Gerard.

STATEMENT OF LEO W. GERARD, INTERNATIONAL PRESIDENT, UNITED STEELWORKERS, AND CHAIR, AFL–CIO LEGISLATION AND POLICY COMMITTEE

Mr. GERARD. Thank you very much, Chairman Shelby, Ranking Member Brown, and Members of the Committee. I want to thank you for inviting me to testify today on the critical issue of crude oil exports.

My name is Leo Gerard. I am the international president of the Steelworkers Union. We have 850,000 members in our union, more than 30,000 of them working in the refining industry. While I will focus on the fact that the USW represents workers in 63 refineries in the country, which amounts to two-thirds of domestic refining capacity, I also want to make the point that more than 10,000 of those workers have either signed a petition or written a letter urging the continuation of the crude export ban.

I cannot stress enough what this does. Although I talk about the 63 refineries, there is no doubt about it whatsoever that our industrial base would be affected by the removal of the export ban. The increase in the cost of energy for American manufacturers in almost every major sector of the economy, whether that is tire and rubber, whether that is paper, whether that is steel, they are energy dependent, and that the rise in the cost by us exporting our crude oil rather than refining it at home would not only affect our refineries, but also would affect our manufacturing base.

In 2014, 27 percent of the petroleum consumed in the United States was imported from foreign countries. Our Nation is not self-sufficient in oil as 44 percent of the crude oil processed in U.S. refineries is imported.

Secretary Moniz, appearing before the House Energy and Power Subcommittee, pointed out that for every barrel of crude oil that we would export, we would have to import another barrel. The fact is that not all crude oil is the same. By keeping oil produced in the U.S. here at home for refining, refiners have been able to realign their processes to specialize in the types of crudes that are produced here. That allows for greater refining efficiency and increased production.

For example, just in 1 year, American refineries through streamlining their processes have been able to increase production by 100,000 barrels a day so that if we think about exporting our crude oil, what we are, in fact, doing is exporting the raw material. There is nothing wrong—this union is not opposed to exports. What we are opposed to is exporting the raw material that would allow other Nations to refine that crude and then sell it back to us, which, quite frankly, does not make sense.

To give you an example, in 2012, members at key refineries in the Philadelphia area were facing layoffs and permanent closures of their refineries. The east coast was facing a loss of over half its domestic refining capacity. An economic analysis about the loss of the east coast refining in the Philadelphia area showed an impact of 36,000 jobs, direct and indirect, would be lost and over $550 million in lost revenue for State and local entities. In spite of supplies at home, heating oil and regional were also being put at risk. Thankfully, our union, working with the Federal, State, and local officials, found buyers for two of the three refineries. Therefore, moving Bakken fuel from North Dakota to the east coast and decreased crude oil imported from Nigeria, an OPEC Nation, by over 90 percent. In addition, refined products imported into the east coast also decreased from 1.5 million barrels in 2010 to just over 1 million barrels in 2013, making the point that we can keep the crude oil at home, realign our refineries, process it here, from raw material create a new commodity, and either use that commodity at home to keep lower-cost energy so that our manufacturers can have a competitive advantage, or we can sell it offshore and let the Chinese get that competitive advantage, then use their position to again undermine our industrial base in this country.

Our refineries are also exporting more value-added refined product than ever before. Our members are not only producing most of the oil for domestic consumption; they are expanding into the global market because of the crude oil export ban.

Let me just say this: I was shocked to hear one of the previous speakers talk about what was going on in North Dakota. The Census Bureau has said that in the period between 2011 and 2012, 75 workers have died in North Dakota working in the oil industry. They would not want to lift the export ban.

Chairman SHELBY. Thank you.

Dr. Zycher, I will start with you. You have testified that removing the oil export ban is likely to raise the domestic price of crude oil, but lower the price of gasoline in the U.S. I think it is important for the Committee and the American people to understand these effects.

Building on your testimony, can you explain how and why that would occur?

Mr. ZYCHER. Yes, indeed. As I discussed in my oral testimony and in some greater detail in my testimony submitted for the record, an end to the export ban would produce a greater alignment of domestic crude oil prices, international crude oil prices, thereby narrowing the difference between, again, for example, the prices of West Texas Intermediate and Brent crudes. And so that difference is roughly $5 to $6 barrel, depending on which day you look at the data, and my estimate is that the difference would be reduced by something on the order of $2 to $3 per barrel. That would account for the increase in domestic crude oil prices.

Somewhat counterintuitively, domestic product prices—gasoline, diesel fuel, and the rest—would go down for two reasons:

First, the increase in the international supply of crude oil that would be one effect of ending the export ban on U.S. crude would reduce crude prices internationally and would thereby reduce product prices internationally. And because product prices are traded freely, there is no export ban on U.S. products, product prices in the U.S. have to be equal, adjusting for transport costs and all the rest. With product prices overseas, the reduction in product prices overseas would yield a reduction in product prices in the U.S.

Second, because the export ban on U.S. crude oil introduces a distortion between refinery characteristics and the characteristics of crude oil, an end to the export ban would reduce the cost—by reducing that distortion or eliminating it would reduce the cost of producing products domestically, thereby also yielding a reduction in product prices.

The point is that the export ban introduces a distortion in the market both on the crude oil side and on the product side, and both of those distortions have the effect of increasing product prices to U.S. consumers.

Chairman SHELBY. Thank you.

Mr. Muncrief, the world, as you have pointed out and we all know, is currently experiencing a global low price environment on crude oil at a time when the U.S. can and has recently expanded its crude oil production. Could you discuss here this morning the production capacity that is held back from keeping the ban in place?

Mr. MUNCRIEF. Yes, sir, Mr. Chairman. You know, if you look at the growth that we have seen here in the U.S., it has been simply staggering. We think that crude oil production could increase another 4 to 5 million barrels a day here in the lower 48 if we had the refining capacity domestically and the export capability.

Chairman SHELBY. Dr. Zycher, in your testimony you highlight how the export ban, and I will quote you again, "has distorted the allocation of differing types of crude oil among the refineries." Could you elaborate here on the different capabilities of refineries throughout the U.S., including the types of oil they are designed to process? And how would ending the export ban help to fix the misalignment of different types of crude oil and the U.S. refineries available to process it? I think that is an important distinction that we need to get into here.

Mr. ZYCHER. Right. At least traditionally, the gulf coast refineries have been specialized or more specialized in the processing of heavier, more sour or higher sulphur type crude oils, while the east coast refineries have been somewhat more specialized in the use of lighter and less sulphurous crude oils.

The export ban combined, with various transportation bottlenecks and all the rest, has the effect of forcing refineries to make investments to use crudes that they would not otherwise use in the absence of the export ban. In particular, the gulf coast refineries have been forced to make investments to use crude oils less heavy and less sulphurous than otherwise would be the case.

The point is that the export ban, again, by distorting the market has increased the cost of refining for the U.S. domestic market as a whole and thereby increasing the cost of producing refined products.

Chairman SHELBY. Senator Brown.

Senator BROWN. Thank you, Mr. Chairman.

Mr. Muncrief just said that there is insufficient refining capacity for light crude oil. Mr. Gerard, I would like to ask you about this, and this has resulted in a surplus of their product, if you will. It is my understanding that refineries are, in fact, investing in converting facilities to process an additional 720,000 barrels of light tight oil per day. Speak, if you would, Mr. Gerard, to those investments going on at refineries around the country.

Mr. GERARD. Right now, the refineries around the country are, in fact, committing, to investing somewhere between $8 to $9 billion in both modernization and efficiency. That additional investment will allow them over that period of time to be able to process an additional 4 million barrels per day of value-added exports.

The issue for us is not whether or not we should export. The issue is that we should be exporting finished products, and we should be making those finished products in our refineries. And right now our refineries—and we represent 63 of them and over 30,000 workers—have a plan to align their refineries with the kind of crudes that are being developed and being extracted now. Those crudes may not have been the same crudes that were extracted 20 or 30 years ago. So as I said earlier, they are aligning their refineries for in 1 year just 100,000 barrels just for some of the refineries. So they have got a long-term plan of 8.7 billion. That creates us an opportunity to have a low-cost energy economy that also helps our refining industry but, in particular, also helps our manufacturing within energy-intensive industries such as paper, rubber, steel, many of them in your areas.

Senator BROWN. So, Mr. Muncrief, what is your perspective on those investments being made in the refining industry?

Mr. MUNCRIEF. Well, we applaud that the investments are finally being made. The fact of the matter is that a new refinery has not been built in the United States in the last 35 years, and that is sad.

Now, while we applaud these incremental investments, that pales in comparison, to the capital investment, the job creation, the opportunity that we have in the upstream sector. And so I do not think it is enough fast enough.

Mr. GERARD. There is a greenfield refinery being planned, Senator Brown. There is a greenfield refinery being planned that is going to be built in North Dakota, as we understand it. So there may be by 2025 a brand-new refinery.

Senator BROWN. Thank you, Mr. Muncrief.

Mr. Gerard, you point out that if the export ban is lifted, a substantial portion of the crude we would export would go to countries without strong environmental or labor or health and safety standards to be refined and then returned to the U.S. as finished product, if you will.

Since refining is a dangerous occupation, talk to us about the implications of this for U.S. workers and consumers and for foreign workers.

Mr. GERARD. Well, for those of you who followed this spring's negotiations in the oil industry, we actually ended up in a substantial labor dispute over health and safety conditions. The industry was experiencing an explosion or a fire on average of once a week, and we have tackled that. I made the comments about the fatalities in North Dakota. The reality for us is that we are going to export crude; it is going to go offshore, and I will give you one example of a refinery that is being put together in India in what is called Jamnagar—Jamnagar Oil Refinery in India. And they boast on their system that what they are going to produce is going to be directed to the U.S. So if we put our crude on the market, you know who is going to get it. It is going to be China and India and those countries that are going to go after it. They are going to want to have the lower-cost energy that they can get from that. And then they are going to attack not just our refining capacity, but they are going to attack our manufacturing base.

We have an opportunity, because of the amount of energy that we can generate, to have a lower-cost energy economy and to translate that not just into more jobs in the refining sector, but to have more jobs in the manufacturing sector that are energy-intensive, and by shipping the crude there and bringing it back, we are increasing the carbon footprint of a sector of the economy that is already unfairly under attack.

Senator BROWN. Mr. Gerard, in your testimony you noted that U.S. consumers currently benefit from lower oil prices caused by OPEC's ongoing efforts to manage global prices. These savings are substantial, you say, with estimates of $209 billion per year in consumer savings. Your economists have said that translates into $1,064 per driver, $2,100 per family.

Describe to the Committee how your economist came to those numbers and whether you think that administrative steps short of lifting the ban—for example, allowing expanded licenses to certain targeted countries or for a certain limited period—might mitigate those effects?

Mr. GERARD. Well, the Energy Information Administration had been reporting that households on average are saving $700 per year in lower fuel costs. That is only the fuel for automobiles. If we look at home heating oil, if we look at all those other sectors, and you add them up, it comes to a fairly substantial average saving for the average family. And that was done by the Energy Information Administration, not by the—I wish the Steelworkers would have done it, but we did not have access to the kind of information they had.

Senator BROWN. Thank you.

Thanks, Mr. Chairman.

Chairman SHELBY. Senator Rounds.

Senator ROUNDS. Thank you, Mr. Chairman.

Dr. Zycher, I am just curious. In your estimate, what is the anticipated need for crude oil, the world supply—or the world demand for crude oil versus supply over the next decade?

Mr. ZYCHER. Well, I usually take these forecasted market numbers with a huge grain of salt, to be honest about it. You know, the world market now is roughly 90 or 95 million barrels per day. Projecting crude oil demand and supply dynamics even over a year or two, let alone a decade, is a very difficult endeavor. It depends on economic growth, differential economic growth in different regions, and I really, with all due respect, am a bit reluctant to throw out numbers in which I do not have a lot of confidence.

One would expect, if you assume world economic growth at something on the order of 1 or 1.5 percent per year, then using standard estimates of what we call the "elasticity of oil demand" with respect to economic growth, you would expect something on the order that oil demand or crude oil demand would grow roughly proportionally with world GDP growth. And my view of the production side of the world market is such that it would basically keep up with demand growth worldwide.

And so if you believe that over the next decade world oil demand, world GDP will grow at something on the order of 10 percent, it is not unreasonable to assume simply for discussion purposes that oil demand and production will grow also roughly 10 percent or so. But, again, I would not bet too much money on the accuracy of these kinds of forecasts.

Senator ROUNDS. Suggesting that the prices that we see today would be similar perhaps in the future, or are we seeing a glut——

Mr. ZYCHER. Well, the best prediction of the price of—if you think about oil as a good that is substitutable over time in terms of consumption, you can consume—it is not like cut flowers. You can consume it today, or you can consume it tomorrow. And so prices are driven by interest rates over time. Then the best predictor of the price tomorrow is actually the price today. And so the best estimate of the price of oil tomorrow or next year is the price this year, abstracting from unexpected events, events that markets really are not very good at predicting, like wars and all the rest.

Senator ROUNDS. Sure. Mr. Gerard——

Mr. GERARD. Or what OPEC does.

Senator ROUNDS. I am sorry?

Mr. GERARD. Or what OPEC does.

Senator ROUNDS. Yes. Mr. Gerard, I am just curious. The organizations which your members work for, the refineries that they work for, in many cases are—do they purchase the oil at basically the West Texas Intermediate price?

Mr. GERARD. They do not tell me what price they purchase the oil at. But what they do tell me is one of their problems is not sufficient crude oil. It is the infrastructure to get the crude oil to them.

Senator ROUNDS. Such as pipelines.

Mr. GERARD. Pipelines, rail, whatever the circumstances.

Senator ROUNDS. Your group is in favor of the Trans-Canada pipeline?

Mr. GERARD. Our group is only in favor of the Trans-Canada pipeline if it is going to use domestically produced pipe. We are not in favor of using Indian pipe that is substandard to what we produce in America, which has been what the plan has been. So until they are prepared to use American-made pipe, we are not in favor. That does not mean we are not in favor of pipelines. I hope you get my point.

Senator ROUNDS. Sure. In the case where you are looking at the pricing on—my understanding is that there is a difference between what the crude oil producers could get if they had an open market versus what they get right now, basically the $2 to $3——

Mr. GERARD. I think that if you look at the coalition that has been created by the independent refiners, they are in favor of keeping the ban on, and part of the reason is that it is going to drive up their price.

Senator ROUNDS. Sure.

Mr. GERARD. If it is going to drive up their price, to extend it, then it is going to drive up the price to the consumers. And——

Senator ROUNDS. But let me ask——

Mr. GERARD. Let me finish——

Senator ROUNDS. Well, no, let me—no, just wait——

Mr. GERARD. I do not want to——

Senator ROUNDS. Let me finish for just a second. Then I will let you come back in on this.

Mr. GERARD. You have got 30 seconds.

Senator ROUNDS. But I want to hit this particular point. I think the Chairman may give me some leeway on that. In this particular case, it is the difference in price that really is driving the need to try to keep the ban in place in terms of the reduced price——

Mr. GERARD. No.

Senator ROUNDS. You do not think it is the difference in the reduced price? So you would pay a higher price?

Mr. GERARD. I am not going to say that.

Senator ROUNDS. OK.

Mr. GERARD. It is not just the price. It is the access to the crude that is going to allow them to do what they are doing, and now, as I said earlier in my testimony, they have realigned the refineries so that they can produce a greater amount without having to build a new refinery. So we have increased just in 1 year in a couple of small refineries 100,000 additional barrels a day. But the investment of the $8.7 billion, they are talking about 4 million barrels of additional crude.

Senator ROUNDS. Are there any of those organizations right now that are without crude to——

Mr. GERARD. Well, let me say that a couple of them came close. That is why we had the closures of the east coast refineries, including Philadelphia Energy Solutions and Monroe Energy that we worked with to save those places. And once we were able to open the pathway to get the crude from the Bakken to the east coast, they are doing well now, and they have invested hundreds of millions of dollars in those refineries so that they can produce more crude, more finished product. And we are not against exporting finished product. We are against exporting the raw material and losing those jobs, and increasing the carbon footprint because we export, then we bring back.

Senator ROUNDS. As long as the finished product is sold at the market price, the world market price.

Mr. GERARD. Well, the world market price is going to obviously be set by Saudi Arabia, Kuwait, the UAE, Qatar, Bahrain, and Oman who have decided that they are going to increase production by 17 percent next year. That will definitely have an increase on price, a hell of a lot more than we are trying to do. So thank you.

Senator ROUNDS. Thank you, Mr. Chairman.

Chairman SHELBY. Senator Reed.

Senator REED. Thank you very much.

Dr. Zycher, to Mr. Gerard's point, OPEC's influence on world pricing is probably the most dominant effect in the world setting energy prices. Is that your view, too?

Mr. ZYCHER. Well, it is certainly important, although I think that the ability of Saudi production policy to affect world prices is significantly reduced from what it was, let us say, back in the 1980s. The ability of Saudi Arabia to act as what used to be called the "swing producer" within OPEC and the willingness of the Saudi Government to do so are both substantially reduced from what was the case in the 1980s and 1990s. As the Saudi share of world production has gone down, particularly in the face of the increase in U.S. production, attendant upon the expansion of fracking and horizontal drilling in the various shale basins in the U.S., I think there is a tendency to overstate, frankly, the ability and the willingness of the Saudis to drive pricing by changing their production policies.

Really a better interpretation of Saudi production policy is to maintain production at more or less constant levels, allowing world market prices to fluctuate more than otherwise would be the case, and thereby increasing the risks to investors outside Saudi Arabia.

I think many people do overstate the ability and the willingness of the Saudis to change their production policies in efforts to change prices.

Senator REED. It seems to me that over the last several years they have increased their production in a rather significant way, and prices at the pump today are $2.54 or so. And I remember being yelled at a couple years ago when the prices were much higher. And the one factor that many people point to is the Saudis for political reasons have decided that they do not want the Iranians to get access to any oil benefits.

So I think you are sort of glossing over the impact that they have on the prices, together with the other OPEC countries.

Mr. ZYCHER. Well, I did not say that Saudi production policy does not affect prices. It certainly does.

Senator REED. Let me put it this way: Do their production policies have much more impact on prices than lifting this ban on crude oil in the United States?

Mr. ZYCHER. It depends on how much they would change their production. I have already argued that lifting the export ban would have a very modest impact, something on the order of $2 to $3 a barrel. The Saudis certainly can affect prices more than that if they choose to do so.

Senator REED. I agree with you. Just one other final point. You have indicated that the price of crude going to American refineries would probably go up as this world recalibrates. How does a refinery whose major input goes up produce gasoline that is lower cost? Because I think your other conclusion is world gasoline prices will fall.

Mr. ZYCHER. Right. For two reasons. One, the exports of U.S. crude will increase the supply of crude internationally, thereby reducing the prices of products internationally.

Senator REED. Internationally, but not the prices of products coming out of American refineries.

Mr. ZYCHER. Well, no. The U.S. market—the product prices as a first approximation have to be equal everywhere in the world because there is one price for gasoline and one price for diesel, abstracting——

Mr. GERARD. That is just not true.

Senator REED. Excuse me. I live up in Rhode Island, and I can tell you, the price of gasoline up there is more expensive than lots of places in the country, and that is just within the United States. So——

Mr. ZYCHER. Yeah, and the price of gasoline in California is even higher than that, but that has got nothing to do with whether an end to the export ban would have an effect—would have the effect of increasing or——

Senator REED. I am just asking——

Mr. ZYCHER. ——reducing product prices domestically.

Senator REED. How do you take an input price that goes up, essentially fixed costs, I am assuming, for other aspects of the refinery operation, and produce cheaper gasoline?

Mr. ZYCHER. Right. For two reasons——

Senator REED. Now, I think what will happen is that you could have cheaper gasoline worldwide, but we would be producing at a loss in our refineries, and there would be pressure to close those refineries.

Mr. ZYCHER. Well, refinery margins might go up or down. That is not really an issue for public policy. I mean, how markets affect prices, input and output prices is not really a policy question. The narrow economic question—well, it really is not if you believe in markets rather than Government as determinants of resource allocation.

Senator REED. This is an interesting argument because this whole market is based upon a monopoly of OPEC internationally. And if you do not recognize that——

Mr. ZYCHER. OPEC is really not a monopoly. It is one big guy and a bunch of little fish who kind of go along for the ride, speaking——

Senator REED. Which is a pretty good definition of a monopoly.

Mr. ZYCHER. Well, not really. But in any event, if the Saudis really were monopolists, prices I think would be a good deal higher than they are today. The point, to answer your question——

Senator REED. If they wanted the Iranians to——

Mr. ZYCHER. Senator, if I could answer your question, please, I would really appreciate it. To answer your question, the effect of ending the crude oil export ban would reduce the supply of crude oil internationally, thereby reducing product prices internationally, also in the U.S., and also reducing the distortion in the allocation of various different types of crude oils across refineries in the U.S., thereby reducing the cost of producing gasoline and other refined products. There is simply no question that ending the export ban will increase very, very modestly the price of crude oil domestically and reduce, again modestly, the prices of refined products domestically, as counterintuitive as that may seem.

Senator REED. Thank you.

Chairman SHELBY. Senator Moran.

Senator MORAN. Mr. Chairman, thank you. Thank you for this hearing. I am reminded by this hearing, the amazing jurisdiction of this Committee, that we are talking about exports of crude oil.

Let me preface my questions by saying I come from an oil-producing State, just north of Oklahoma, and I notice that you did not say in your testimony any production in Kansas, but we would welcome your interest in our State. And I grew up with a father, a union member, who worked in the oil fields, and I remember our lives were dependent upon the price of crude. And I remember the conversations in our household about whether or not my dad would get bumped, moved someplace else, as a result of the fluctuating price of oil and the boom and bust of the oil economy.

My question relates to the desire that I have—and I assume is beneficial to those in the industry, both executives who own companies and the workers who work for them—to have a more certain production and a less boom-and-bust cycle to oil and gas. Does the export of petroleum from the United States globally reduce the ups and downs, the price fluctuation that occurs, and the challenges that those in the oil industry then face in deciding whether to invest or to retreat? Is it more stable if we are exporting globally?

Mr. MUNCRIEF. Without a doubt, absolutely. I know that Senator Reed was talking about OPEC, but a lot of the U.S. production growth here has come from these resource plays, shale plays, tight reservoirs. We have known for generations that that resource was there, and it has been these technological advancements that we have been able to make with horizontal drilling and hydraulic fracturing that have absolutely changed the game for us.

So from a certainty, exploration risk has been diminished drastically, and so now——

Senator MORAN. Because of technology.

Mr. MUNCRIEF. Because of technology. So it is absolutely now an economic decision with two primary factors: the price of the commodity that you are receiving, whether it is crude oil or natural gas, and then the cost of developing that resource. Industry has done a tremendous job in driving down cost, getting efficiency at all-time highs, and that is why these pullbacks can be so damaging to our industry. That is why we have lost over 100,000 jobs in the last 12 months. The last 12 months. And I have spent 35 years in this business, offsetting production decline and hiring people and trying to manage growth.

And so your point is spot on, that the ability to export crude oil will absolutely take away a lot of these swings that we have battled through your lifetime and mine.

And one thing I would like to point out, too, is the worldwide demand of crude oil. My copanelist here mentioned that a while ago. The worldwide demand is over 90 million barrels a day. If you assume that 1-percent growth, that is a million barrels a day of growth that has to take place. Reservoirs decline naturally. The worldwide base decline is approximately 5 percent, and at 95 million barrels a day, we as an industry worldwide have to add on new supplies of 5 million barrels a day in a no-growth scenario. You add another 1 million barrels a day due to growth, economic growth, now you are 6 million barrels a day that you have to offset.

So when folks talk about Saudi Arabia or Iran, you hear that they will contribute an additional half-a-million barrels a day or a million barrels a day that falls way short. That falls way short of what the worldwide demand is going to be. The increased demand is year after year after year. It really has a cumulative effect. And so when you are not investing in E&P, exploration and production, you are going to have these cycles that you mentioned.

U.S. producers are struggling right now because we don't have ability to export. U.S. producers are handicapped. We are hamstrung. We cannot get more of our products through refineries, and we cannot export it.

Senator MORAN. Mr. Muncrief, that is the conversations I have with people in my hometown, which is we have production, we need the markets. What is the relationship between the price of oil and the refining capacity in the United States? And what are the circumstances we face as a country in increasing refining capacity? What does it mean to the production side of the oil and gas industry?

Mr. MUNCRIEF. Well, I think the one thing we really need to note is that when you talk about the U.S. refining capacity, we have about 5 or 6 million barrels a day of U.S. sweet oil we can get through the refineries, and that is it. We are capped.

Also, there is a foreign ownership component of U.S. refineries. In other words, there are countries around the world that have ownership in the U.S.-based refineries. And so they are going to preferentially make sure that their crude gets processed first. And so that is what we are up against, this limit of being able to get our crude oil refined.

Senator MORAN. Thank you very much.

Mr. Chairman, I would ask unanimous consent to enter into the record a letter I have from Ed Cross, the president of the Kansas Independent Oil and Gas Association.

Chairman SHELBY. Without objection, it is so ordered. It will be made part of the record.

Senator MORAN. Thank you.

Chairman SHELBY. Senator Heitkamp.

Senator HEITKAMP. Mr. Chairman, thank you so much for holding this hearing. This is obviously an interesting topic and an issue that in many ways is new to the Congress, but not new to this industry. I could give you 50 ways that this policy is wrong on so many levels.

I like to always start with it is wrong fundamentally because we believe commodities ought to find their market, and that is good for America; it is good for our balance of trade. It is good for stabilizing, as Ms. Flournoy has said, energy security throughout the world.

But I want to talk about a couple key issues, and one of the things that gets forgotten because we are all patting ourselves on the back for this amazing energy renaissance that really has been driven by risk takers, like Harold Hamm, who is in this room, and your company, who are willing to make that investment and actually grow the American economy and grow the American energy development.

Now, if your resource cannot find its market, its natural market, where do you typically put your investment? Someplace else. You are not going to stay investing, and so when people say this will affect national—doing nothing will affect our national security, will affect our national energy interests, and fundamentally is not fair. But I want to maybe point out a couple things, because I think we are getting one side of what happens with the workers who are organized in the refineries. But you also have workers who are organized in basically producing steel.

Isn't it true, Mr. Gerard, that the American domestic energy industry is the number one consumer of steel in this country?

Mr. GERARD. The auto industry is.

Senator HEITKAMP. No, I think—we would have to go back——

Mr. GERARD. We can have a debate——

Senator HEITKAMP. ——and take a look.

Mr. GERARD. We can have a debate about it, but, you know——

Senator HEITKAMP. But certainly during this time of tremendous growth in the oil industry, they are a huge consumer of steel.

Mr. GERARD. Absolutely.

Senator HEITKAMP. I have seen pipes everywhere.

Mr. GERARD. Absolutely. Let me——

Senator HEITKAMP. Isn't it true——

Mr. GERARD. You asked me a question. Let me answer it.

Senator HEITKAMP. You did answer it. You said no, the auto industry is.

My second question is how many jobs do you think steelworkers have lost as a result of the decline in energy drilling in this country?

Mr. GERARD. What has happened in the last 15 months is a loss in the pipe and tube industry that we represent, in that part of the steel industry, probably about 2,000 jobs.

Senator HEITKAMP. 2,000 jobs, so——

Mr. GERARD. Well, let me finish. Those jobs are not necessarily lost in the transmission. They are lost because there has been a decline in drilling.

Senator HEITKAMP. That is correct.

Mr. GERARD. And the decline in drilling is not because we have not been able to export our crude. The decline in drilling has been because of the drop——

Senator HEITKAMP. I think there is where we end up with a fundamental difference. When your product——

Mr. GERARD. Probably, but I am not finished answering.

Senator HEITKAMP. Right, right. When your product cannot find the market, obviously, and you are basically experiencing glut and storage of oil——

Mr. GERARD. No, we are experiencing——

Senator HEITKAMP. I would just——

Mr. GERARD. You know, you keep cutting me off. What we are experiencing is that there is an increase in imports into this country of 7 million barrels a day. There is a decrease in drilling because of the price——

Senator HEITKAMP. I only have so much time, and so——

Mr. GERARD. So do I.

Senator HEITKAMP. ——the other point that I want to make—and I guess it is not a question; it is going to be a comment—is that when we look at the domestic refining industry that obviously is incurring a huge amount of, as you have said, capital development, a lot of that is being built on the backs perhaps of the consumers, because what we have is we have the refined product being established by an international price, but the import being a domestic price. And, obviously, we have seen margins—in fact, I think one BP refinery has actually increased their margins 75 percent. So let us not pretend that these are dollars that are basically—I think they are going into investment and that is good, but the consumer reaction is they are not getting the benefit of a West Texas Intermediate crude price. And so when we look at it, we need to understand that, with the exception of one economic report, pretty much every economist all up and down kind of the political spectrum, including the economist for the American Government at EIA agrees with Mr. Zycher about the importance of—and this kind of counterintuitive idea that lower—an increase in domestic prices will actually lower prices at the pump.

But with the little bit of time that I have left, I really am—I think it is so critically important that we understand what this resource could mean to soft power, what this resource could mean to energy security among our allies, and basically getting to the domestic opportunity that we have here to use this resource to stabilize our——

Mr. GERARD. You and I——

Senator HEITKAMP. ——the country for our economy. I would like to ask Ms. Flournoy if she could comment further.

Mr. GERARD. You and I will have a fundamental disagreement on that because I want—you did not let me finish your earlier question——

Senator SCOTT. Mr. Chairman? Mr. Chairman?

Mr. GERARD. You know, the——

Senator SCOTT. Excuse me, sir. Mr. Gerard? Mr. Gerard——

Mr. GERARD. Well, I wanted——

Senator SCOTT. I do not think she was talking to you, sir. I would like to hear the response——

Mr. GERARD. I wanted to answer the question, and she did not let me answer.

Senator SCOTT. ——from Ms. Flournoy.

Senator DONNELLY. Mr. Gerard, I will ask you a question when my time is here.

Ms. FLOURNOY. So if I may, I do think that allowing the United States to be a full-fledged exporter of oil would increase our leverage on the global stage: first, in strengthening our economy, which is the foundation of our security; second, in giving us tools to be able to help our allies who are dependent on a number of countries—Russian, Iran, others—that may have interests counter to our own. Our ability to export will help them diversify their energy sources of supply. And it also, I think, gives us more tools to leverage in terms of dealing with others who may try to manipulate the market against our interests, and tools that would enable us to use sanctions effectively in future cases by ensuring that we could help ensure alternative sources of supply if we are imposing sanction on a Russia or an Iran in the future.

Senator HEITKAMP. Mr. Chairman, if I could just make one final point?

Chairman SHELBY. Go ahead.

Senator HEITKAMP. We have talked a lot about Saudi Arabia, but right now the United States of America, if you include natural gas liquids, is the number one producer of crude oil and natural gas liquids. And so as we look at Saudi Arabia and we think about the dominance that they have in the market, the Americans have a huge opportunity to be dominant in this market and stabilize prices and stabilize supply. And I think that is an excellent point for our allies, especially in the backdrop of what we are considering with Iran.

Thank you, Mr. Chairman, for the extra time.

Chairman SHELBY. Senator Cotton.

Senator COTTON. Thank you. Well, I agree with Senator Heitkamp that the oil and gas revolution in our country is a great testament to the American system of free people and free markets, individual freedom leading to amazing ingenuity and advances in the technology of hydraulic fracturing and directional drilling, as well as continued innovation in the face of adverse price declines.

Second, our systems of capital markets which allow savers from the smallest pensioner to the biggest institutions to rapidly pull together capital to fund many of the most advanced but small fracking companies that are working throughout the country, a testament to the American worker, through the training, the skills, the adaptability of workers who have left one way of life as different parts of our economy have faded and the oil and gas sector has grown; a testament to our system of private property rights and the fact that people who own land have also the rights to what is underneath that land. In most places in the world, one of the worst things a farmer can hear is that there is oil underneath your farm, because that means the Government is going to come in and destroy your land and take it from you. In America, it can mean financial security not just for you and your generation but for generations in your family.

And I think you can see just what a testament it is to our way of live here because so many other countries around the world who have as much or more shale, oil, and gas have not yet been able to harness it in the same way we can. I can see it personally. In the middle part of the last decade, in north-central Arkansas, the Fayetteville Shale, which is a gas field, was one of the first shale production fields, and I spent much of that decade in the army, and I was deployed to Iraq and Afghanistan—or, even worse, in basic training—and I did not get home much. But it seemed like every time I came home, two or three times a year, not as much as I would have liked, I drove through Conway, Arkansas, and there was a new shopping mall going up or a new subdivision, a new auto dealership, because Conway is the kind of geographic center of the southern part of that shale, and the amount of opportunity for higher-paying jobs with better benefits, better local schools, better services, not just in places like Conway but Greenbrier and Vilonia and Clinton and so many other communities, was amazing. So I think it is something of which we should be proud and something which we should try to promote and harness.

Which brings me to the points that you were talking about earlier, Dr. Zycher, about Saudi Arabia and OPEC and Saudi Arabia being the swing producer. You said that it is not really the swing producer in the same kind of way it was, say, in the 1980s. Could you elaborate on that a little bit, and also maybe touch on the market decisions they have made over the last 12 to 14 months to keep output elevated despite declining prices?

Mr. ZYCHER. Sure. If you reflect back on Saudi behavior in the 1980s, Saudi production capacity, if I remember the data correctly, was something on the order of 11 to 12 million barrels per day, and the effort to prop prices up around $36 in nominal dollars per barrel back then led the Saudis to almost monotonically during the first half of the 1980s reduce their production from something like 11 million barrels a day down to 3.5 million barrels a day. This was the direct result of the Reagan administration decision to de-control domestic oil prices, thereby introducing competition, both domestically and internationally, into the world market.

At the point when the Saudis discovered that the cost to them of maintaining a $36 price by reducing their own production down to 3.5 million barrels a day, they decided at that point—and I think it was 1986—to increase production and let prices find their market level. And prices, you may recall, collapsed in 1986, I believe it was, from something like $36 per barrel to less than $10 per barrel over the course of something like 8 months. I cannot quite remember.

Saudi behavior has never been the same since. They have been willing to prop up prices to a degree simply to maintain revenues.

They do want to maintain their market shares. At the same time, Saudi incentives are to increase revenues but to reduce revenues to some of their rivals, the Iranians in particular, and those goals are inconsistent. And so Saudi policy since the 1980s, as it has evolved into the present day, has been somewhat schizophrenic. And even apart from that, the Saudi share of the market is a good deal smaller than it was in the 1980s, and their ability to control prices is a good deal more circumscribed than it was back then.

Senator COTTON. And as they made the decision to keep output elevated over the last year, I think that is part because they realize they no longer have such total market control given the ingenuity of American oil and gas producers.

Mr. Chairman, if I could just have one extra moment for Mr. Muncrief?

Chairman SHELBY. You go ahead.

Senator COTTON. I hear what you say about job losses in the industry. We have seen it in Arkansas as well, both in the Fayetteville Shale and the Smackover field in south Arkansas. But at the same time, I have read repeated reports of the expected break-even price for many shale productions going from 85 down to 70, in some places now it is even below 50. Can you tell us what your experience is on break-even prices in industry and also what you think the decision—the way that has played into the Saudis' decisions?

Mr. MUNCRIEF. I do think you are seeing a reduction in the break-even prices, and it is driven by several things.

Number one is it is a supply chain. With this drop of a thousand rigs, that has been very, very impactful. But within the supply chain, you are seeing a lot of inefficiencies driven out, and you are also seeing renegotiations of costs of goods and services.

The second thing is that most producers are now going to their very best acreage. They are going to the core of their acreage so that the can make every dollar of investment go further and can compete, and, live to fight another day. And I think that is the issue with most producers, and that is why you are seeing that break-even cost trickle down.

Senator COTTON. And as American producers innovate, that means foreign producers have less and less control over the international markets.

Mr. MUNCRIEF. Well, we have talked about this additional 4 to 5 million barrels a day that we have seen on the crude oil side over the last 5 or 6 years, and I do think that foreign influence has diminished some.

The one thing that could be troublesome—it goes back to a question of Senator Moran's a while ago—is the stability in the world. You know, if you think about a worst-case scenario it would be where you have a supply disruption at the world level. It could be Saudi, it could be Russia, it could be one of the large producers. And suddenly we are short, and yet here is a U.S. producer: you are hamstrung because you cannot up your production because you cannot export and you cannot get any more through the refineries.

Senator COTTON. Thank you all for the very informative testimony.

Chairman SHELBY. Senator Brown has a comment.

Senator BROWN. Mr. Chairman, just a real brief comment. In light of Mr. Gerard's trying to answer questions fully from Committee Members, I just want to point out that there have been five witnesses on one side of this issue, counting Senator Hoeven and Senator Murkowski, and one on the other. And I just would hope that our colleagues would show a little respect to Mr. Gerard and let him speak and get at least a little bit of the other side into this hearing.

Senator SCOTT. I hope that is respect on both sides, from as well as to.

Chairman SHELBY. Thank you.

Senator Menendez.

Senator MENENDEZ. Mr. Chairman, this hearing comes at an interesting time, during a week in Congress where it is considering a transportation bill on which we have gone to great pains to avoid a real conversation about user fees that traditionally pay for our infrastructure or long-term financing such as through getting foreign profits back to the United States with repatriation. So we would rather fund our highways and bridges with aviation security fees, with taxes on mortgages, with a fire sale on Strategic Petroleum Reserves, or hiring private sector mercenaries to shake down American citizens. Anything that would prevent a real conversation about long-term, sustainable infrastructure funding.

But it seems to me that sensibility does not seem to extend to our crude oil export policy. You know, I hear different things here, but a study out yesterday indicated, predicted that U.S. consumers would see price increases of 8 to 14 cents per gallon if the export ban is ended. Now, that will not be in the form of user fees to repair bridges or roads. Those are going to be dollars and cents coming out of pockets of taxpayers in this country into some of the most profitable corporations on the planet.

And while some have argued to the contrary that ending the ban is going to decrease prices for consumers, I must say that in my 23 years in the Congress, this will be the first time that the oil industry will be lobbying for something that will ostensibly lower their prices and their profits. So that is a pretty interesting perspective as well.

You know, I look at the American Petroleum Institute report that argued, "Producing quality petroleum products and raw materials in America enhances our national energy and economic security," and I think that is the right approach, making investments here at home in our refineries and making sure that we hold the key to our own energy security rather than outsourcing it around the world.

I have spent a lot of time when I am jogging on the treadmill—it does not look like it, but I actually do—looking at TV, and there are ads that keep coming on with this very nice young lady saying, "Energy independence for America."

Well, the messaging to the average American is that energy independence for America suggests that we are using our natural resources, particularly those on Federal lands and waters, to benefit America, to produce energy for America so that we are not dependent for our energy needs on other countries. And there are millions of dollars being spent to send that message, but that belies the reality of certain things, so I want to get to that to understand some of this.

Ms. Flournoy, isn't oil a global market?

Ms. FLOURNOY. Yes, sir.

Senator MENENDEZ. OK. So if it is a global market, as most global markets work, basically let us assume that we lift the ban and American companies can sell oil abroad, both those created in Federal land and water, which is supposed to be for the Nation's patrimony and for which there is a big debate as to how much are actually paid for that patrimony, and those that are not on Federal land and water. Ultimately, that is going to go to whoever is willing to pay the highest price in the marketplace, isn't it?

Ms. FLOURNOY. Well, it is a globally traded commodity, but I think our additional production could both help to reduce price and also create jobs here.

Senator MENENDEZ. But that oil is not going to stay here in the United States to help American consumers.

Ms. FLOURNOY. It may or may not, depending on the market.

Senator MENENDEZ. Well, the reality is that there are voracious appetites in the world—and we have seen it in China, in Japan, in South Korea, and Iran has been raised here several times. The bottom line is that they want to get oil they need desperately.

So I know of no national security policies, at least at this point in time, that directs specifically oil to a certain location, so the suggestion that national security is enhanced, there is a CRS report that just came out in May of this year, and it says, "Since the decision to export U.S. crude oil will be based on commercial and economic considerations, not directed and controlled by the Federal Government, predicting and quantifying physical crude oil flows to a particular region in the world under a nonrestricted export scenario is difficult and subject to assumptions that may not be realized."

So we do not direct—because I oppose lifting the ban, but if you told me that as a national security opportunity, we could help our national security—let us say we wanted to keep the sanctions on Iran, and Japan and South Korea, our allies, needed oil, well, we could direct it to them, that might be an opportunity to consider. But that is not the marketplace as it is right now.

Let me ask one final question. Mr. Gerard, I have seen a couple of—you represent, your union represents a large number of refineries in the country. I have seen a couple of refineries close in New Jersey, losing hundreds of jobs. Isn't it a fact that what we see is a constant reduction in refinery capacity versus creating the refinery capacity that could ultimately create greater assets here at home?

Mr. GERARD. We have had a number of refinery closures, as I mentioned earlier, in the last several years. A large part of that was because of their inability to get access to the crude they needed for that refinery. While at the same time we have had other refineries, many of them on the east coast, who have rearranged their facilities so that they could process the crude more efficiently. And as a result of those refineries, we are now producing several millions of barrels more per day than we used to.

The one point I was trying to make with Senator Heitkamp is that—two things: We are still importing 47 percent of our crude for this country from other countries. We are not energy self-sufficient yet. And that energy self-sufficiency, if we can get it the way you just talked about, that is going to reduce not just 7 or 8 or 10 or 12 cents per gallon for gasoline; that is going to reduce energy costs for energy-intensive industries that are in the manufacturing sector, like tire, and rubber, like paper, like steel, like aluminum, and all those others. So it has a repercussion beyond the highway.

And the issue of oil country tubular goods, part of what really frustrated me is that we have filed trade cases because of countries that are cheating on their exports of oil country tubular goods to America. We succeed in those cases, and a country like South Korea that does not sell one pound of oil country tubular goods in its own market is flooding our markets.

So right now in the oil country tubular goods, because they play illegally—India, China, South Korea, and others—our domestic share of oil country tubular goods in the last 3 years has dropped down to 50 percent, which means the oil companies or the people selling the—wanting to buy the drill pipe do not give a damn if it is made in America or not, and as a result of that, we are losing our capacity. So we are not going to be able to have our national security if we cannot even generate the pipe that we need for pipelines or for oil country tubular drilling.

So to answer your question, yes, refineries have closed, but it has not been because they are inefficient. It is because they could not access the crude they needed.

Senator MENENDEZ. Thank you, Mr. Chairman.

Chairman SHELBY. Thank you.

Senator Scott.

Senator SCOTT. Thank you, Mr. Chairman.

Ms. Flournoy, like many Americans, I am deeply concerned about the recent nuclear weapons deal with Iran. There are a number of aspects of the deal that give me great concerns, from the embargo that is lifted on weapons in 5 years, the possibility of ballistic missiles in 8 years, the fact that at the end of the 10th year the buildout phase for a nuclear weapon is almost imminent and inevitable. The deal itself does very little to make me feel better that we are going in the right direction. But one specific area of the deal seems to be that we will allow Iran to sell around a million barrels of oil per day on the global market while the United States still has an export ban in place on our oil.

This is particularly interesting when we see the fact that lifting Iran's oil export ban could produce as much as $25 billion in revenue to Iran. Refusing to lift the U.S. crude export ban will continue to help prop up dangerous regimes around the world and stifle economic growth here at home.

It is estimated that the lifting of the ban could add—our ban, that is—could add up to $1.8 trillion to the U.S. economy, lower gas prices by up to 12 cents per gallon, and support hundreds of thousands of good-paying jobs here at home.

With this in mind, I have a couple questions. I will start with you, ma'am, and perhaps continue down the aisle here.

How does Iran's ability to sell their oil in the global market harm America's strategic, diplomatic, and military efforts in places like Russia, Iraq, and Afghanistan?

And the second question is: What terrorist organizations might Iran fund with these additional resources? And that second question I think is particularly important as we listen to the comments of the President's National Security Adviser, Susan Rice, when she was on Wolf Blitzer a few weeks ago. And to quote her, she said, "We should expect that some portion of that money would go to the Iranian military and could potentially be used for the kinds of bad behavior that we have seen in the region up until now."

Ms. FLOURNOY. I think it is fair to say that as sanctions on Iran are lifted, the money that they are able to generate from oil sales and other economic activity internationally will go to both domestic needs and support for their military and their foreign policy goals around the region, many of which are at odds with our own. And so I think it is one of the reasons why it is very important to couple any pursuit of this deal with additional efforts to combat nefarious Iranian behavior, its destabilizing behavior around the region, and work closely with our Gulf allies and Israel to do that.

But I think the broader issue is how much of the world's oil supply do we want to see coming from regimes that use energy as a weapon, like Russia, or have interests that are fundamentally counter to our own, like Iran. I think making sure that the U.S. can export its energy resources to be more of a player in the market to leverage our energy position in the pursuit of foreign policy, in pursuit of our national security objectives, is very important. Ensuring that other countries can diversify their sources of supply, particularly our allies, that Japan does not have to depend on Iran, that Europe does not have to depend on Russia, that will bolster our security long term, perhaps more than—as much or more than the notion of independence, which will be something that we can move toward, but likely never fully achieve.

Senator SCOTT. Your comments seem to echo the comments when I was on the Energy Committee that we heard from the Minister of Energy for Lithuania, who suggested that just sending the signal that we were interested in exporting LNG could have a destabilizing effect around Europe, and Russia specifically, from an economic standpoint and provide real opportunities for us to move forward.

Perhaps one question for Dr. Zycher. Does it make sense or any sense for the United States to continue to withhold our abundant oil resources from the global market which harms American job creation and economic growth while we lift sanctions on Iran to allow their economy access to the same global market?

Mr. ZYCHER. Well, I have not thought through the link between allowing Iranian exports of crude oil while preventing U.S. exports of crude oil. It does seem quite counterintuitive. I think there are good reasons to reverse that juxtaposition.

But there is no sound policy argument that I have ever heard or can conceive that would support the continuation of the export ban on U.S. crude oil. It is simply a distortion in the market that has the effect of reducing crude oil production here, increasing product prices for U.S. consumers, and to some degree that cannot be measured in advance, weakening the dollar and, therefore, making the U.S. economy in the aggregate smaller than otherwise would be the case.

Senator SCOTT. Thank you.

Thank you, Mr. Chairman.

Chairman SHELBY. Senator Donnelly.

Senator DONNELLY. Thank you, Mr. Chairman.

You know, here is the conundrum: I am a strong supporter of American energy independence, of, Mr. Hamm, your efforts, and, Mr. Muncrief, your efforts. And I am a strong supporter of the refinery workers who are working to try to make a living and trying to feed their families, just like the steelworkers in northwest Indiana do every single day. And I am a strong supporter of my families who have to make choices between buying a gallon of gas or buying some clothes for their kids.

We have had times where we were awash in oil in Indiana, and my families were paying $4.25 a gallon because of 14 different explanations I received, and every one pointed at the other person.

And so the question is: I want to have more energy produced. How do we do this in a way that keeps our refinery workers working? Mr. Muncrief, any comment on that?

Mr. MUNCRIEF. Well, I think the refinery jobs are very stable jobs, quite honestly, and while my company represents the upstream industry, the exploration and production, and we would love more refinery workers. That means there is more refining capacity built here in the U.S. And those are stable jobs.

I know that there have been some references to the Philadelphia refinery, and I recall the day that our company, when I was working at a different company, our company celebrated the success of keeping that Philadelphia refinery open because we were able to successfully get Bakken crude oil to that refinery.

Senator DONNELLY. Mr. Gerard, how do we——

Mr. GERARD. You are welcome.

Mr. MUNCRIEF. You are as well.

Senator DONNELLY. How do we make sure we keep the refinery workers working, too? If we have all this product, it does not seem to make much sense to have it go everywhere else but into the American refineries.

Mr. GERARD. I think the question that Senator Menendez asked and the point he made is really real. If you are in a so-called open market, the country that is willing to pay the highest price is going to get the energy. And the reality is that we need to have low-cost energy in America. We are all for energy expansion. We are all for exporting raw materials. That is what we need. But our position is America first. And if we are going to have a strong industrial base in America—we seem to be always talking about number of cents per gallon to put in a car. That is important, and I do not minimize that in any way. But more important is the low-cost energy circumstance that America takes care of itself first, has low-cost energy to grow its manufacturing base, and to expand, because we have left in our country, we have got high-energy manufacturing—steel, aluminum, copper, glass, paper, tire and rubber. They are all energy consumers.

Senator DONNELLY. My State was the number one manufacturing State per capita in the country.

Mr. GERARD. So our position is we will export LNG—once we take care of America first. We will export finished materials—once we take care of America first. We need to modernize our refineries. As I said in my testimony, we have got refineries that are realigning themselves for the kind of crude they can get. We need to expand the infrastructure to get crude to those refineries. We need to do it in a safe, responsible way. We need to do all of those things. If we want to export raw crude, we are going to add to the carbon footprint. If we are going to export raw crude, whoever is going to want to pay the highest price is going to get it, like Senator Menendez said.

Our position has to be America first. And so I congratulate Mr. Muncrief for getting his Bakken crude to Philadelphia Energy Solutions. But you know what? At Philadelphia Energy Solutions, they spent $300 million already modernizing that refinery since they got it. Those are real jobs. Those are people that would have been out. They are now talking about an energy hub in the Philadelphia area, which before was unheard of.

Senator DONNELLY. Well, on my end, what I want to do is see when the mills in my State are making steel, that the energy it is made with is American energy.

Mr. GERARD. Well, Senator, let me just say that one of the things, one of our real problems with this is for some reason there is an aversion to putting America first. The point that I made about oil country tubular goods, we filed a case against South Korea. We won that case. You know what South Korea did? The South Korean Government said, "Do not worry about it." They have increased their exports after we won our trade case. Our mills are closed—not because there is lack of drilling, but because they cannot sell because the Indians and the South Koreans are dumping into our market. And it will take 3 more years of having to put up with that malarkey.

So you want to talk about national security? National security in the raw material that we use to make the products that we need to be secure, if we start exporting raw crude, it will be too expensive, and we will lose that part of the industry as well.

Senator DONNELLY. Well, I would love to see American energy going everywhere in the world, but I want to make sure that our workers are working and that family that lives down the block from me has a chance—as I am sure you do, too, Mr. Muncrief—to have a good job where they can get a good salary, that they can go into the mill and know that their product is the most competitive in the world, and that it is not being dumped against by every other country.

Mr. GERARD. There is nothing wrong with putting America first on energy.

Senator DONNELLY. That is true.

Thank you, Mr. Chairman.

Chairman SHELBY. Thank you.

Senator Warren.

Senator WARREN. Thank you, Mr. Chairman.

The ban on selling crude oil has been in place for more than four decades, so it is a big deal. So if we are going to change it, I want to know what effect it is going to have on jobs, on gas prices, and on the environment, both in Massachusetts and across the country.

So, Mr. Gerard, if I could, I just want to start with the jobs question. You represent 30,000 U.S. workers in the oil sector who depend, whose jobs depend on crude oil that is kept within the country. What happens to those jobs if we lift this ban?

Mr. GERARD. The largest refinery in America is not BP, it is not Shell, it is not Exxon. It is Valero. Valero is the largest refiner. They are an independent refiner. Many of their refineries would be put at risk if they had to compete with whoever was willing to pay the highest price for that fuel—that crude, I should say. And we all know that who is going to want to pay the highest price is the South Koreans, the Indians, and the Chinese.

Senator WARREN. So what happens to those jobs?

Mr. GERARD. They will be gone.

Senator WARREN. All right. So gas prices is the second question I want to ask about. There is a lot of mixed data about this. Senator Menendez started here. Some studies, particularly those that have been paid for by the oil industry, suggest that lifting the ban could reduce gas prices. But the Energy Information Administration, which puts out all the official energy data, says that 68 percent of a customer's cost of gasoline is directly attributable to the refiner's crude oil cost. So if the cost of crude goes up, gas prices I presume could go up, too.

You know, we are not going to settle this question today, but, Mr. Gerard, considering how hard Congress is working to try to fund the highway construction bill without raising gas taxes by a single penny and to keep prices at the pump low, does it make sense for us to lift the ban without some contingency plan in place if prices should jump?

Mr. GERARD. No, it does not make sense. The study that was just released yesterday by the CRUDE Coalition shows that, in some studies, people are underreporting what would happen with the cost of gasoline for automobiles. And, in fact, the agency says it would be closer to 13 to 14 cents a gallon.

My concern, quite frankly, is I see the gas at the little pump not far from—I see it go up and down every couple of weeks or months. My concern is, yes, that is bad, and it is bad for families, and families over the long term are going to use their money, as Senator Donnelly said, for clothes or for gasoline in the car. But I am also concerned about what it does to our industrial manufacturing base.

Senator WARREN. I hear you. So we have got both. I just want to make sure I get all three of these covered. So we have got jobs; we have got price at the pump and the effect that has on the ability to make energy payments everywhere so that we can keep our manufacturing up here. But I also want to go to a third one, and that is, the Government Accountability Office has highlighted research estimating that lifting the ban would increase carbon dioxide emissions worldwide by almost 22 million metric tons per year. So for anyone worried about climate change, that one seems like a big deal.

Dr. Zycher, I presume, given your views on climate change, that you are not particularly concerned about this. I saw that in April of 2014 you said, and I want to quote here, "Temperatures have been warming in fits and starts since the end of the little ice age, and no one really knows the extent to which that long-term trend is caused by man. Policies designed to reduce emissions would have very little impact in this century."

I take it that is still your position?

Mr. ZYCHER. Yeah, absolutely.

Senator WARREN. All right. Well, you know, it would be nice to be able to ask one of the many, many experts who actually do believe that manmade climate change is a problem about this, but, unfortunately, we do not have any of those people today on the panel. So if you think that climate change is real, is caused by humans, and that people can and should do something about it, then lifting this export ban without addressing these environmental consequences sounds pretty dangerous.

You know, there is a lot of speculation about the impact of lifting the ban, but the most obvious effect would be to generate enormous profits for certain big oil companies, and that is a good reason to be skeptical of study after study and expert after expert who are funded by big oil to sell this deal. We may need changes in the oil export ban, but any changes we make should be based on independent data and should address legitimate economic and environmental concerns. Big oil may not like that, but the Massachusetts voters did not send me here to work for them.

Thank you, Mr. Chairman.

Mr. GERARD. Madam Senator——

Chairman SHELBY. Did you want to respond?

Mr. ZYCHER. I did not really hear a question, Senator Warren, but——

Senator WARREN. The question was—I read a quote that you said before about your views about climate change. I asked if those are still your views. I do not understand why we do not have an expert here who believes that climate change is manmade. I think there are——

Mr. ZYCHER. Well, I am not quite sure——

Chairman SHELBY. Senator Warren, thank you. I am going to——

Mr. ZYCHER. I am not quite sure what you mean by that. If the question——

Chairman SHELBY. ——give Dr. Zycher a chance to respond.

Mr. ZYCHER. I am sorry. If the question is do anthropogenic emissions of greenhouse gases have an effect greater than zero, the answer is yes. You had mentioned a number with respect to the export ban on crude oil—what was it?—22 million tons, metric tons.

Senator WARREN. The Government Accountability Office has highlighted research estimating that lifting the ban would increase carbon dioxide emissions worldwide by almost 22 million metric tons per year.

Mr. ZYCHER. All right. Very good. Twenty-two million metric tons a year. Global greenhouse gas emissions are about 38 billion metric tons per year, CO2 equivalent. So we are talking here about an effect, if I can do the math in my head, of something like one onethousandth of 1 percent. The effect on temperatures in the year 2100 of lifting the export ban on crude oil would be effectively zero. It would certainly not be measurable given the standard deviation of the surface temperature record, which is about a tenth of a degree per year.

If you look more generally at the Obama administration Climate Action Plan of reducing U.S. emissions by 17 percent between now and the year 2020, add in the agreement—or the pseudo-agreement with the Chinese for another 10-percent cut in U.S. emissions by 2025, we are talking about fifteen-one-thousandths of a degree. And so in the context of this hearing, Senator, the effect of, the impact of ending the export ban or eliminating the export ban on crude oil in terms of climate change issues, which is one of the issues that you have raised, is literally zero. And so I really would not emphasize that topic very much, and——

Senator WARREN. Mr. Zycher, I get that you would not emphasize that topic. I have seen your views on climate change. But I would like to hear from some other people who have other views about climate change and have them go over the data. I would like not to just have one expert who has said that he does not believe in climate change.

Mr. ZYCHER. That is not what I said.

Senator WARREN. Well, I will read it again, that "Temperatures have been warming in fits and starts since the end of the little ice age, and no one really knows the extent to which that long-term trend is caused by man. Policies designed to reduce emissions would have very little impact in this century."

I would just like to hear from somebody else who also works in the climate area.

Mr. ZYCHER. Next time you have EPA Administrator Gina McCarthy in front of you, ask her how much these policies would affect——

Senator WARREN. I would be glad to do that if we invited people to hearings on oil exports that also included people who are concerned about climate change.

Chairman SHELBY. Ms. Flournoy.

Ms. FLOURNOY. Senator, if I may, I am someone who believes the overwhelming scientific evidence suggests that climate change is manmade. But I also believe that, you know, to the—if we do lift the export ban on oil, that needs to be accompanied by a very serious set of policies that would more directly affect climate change, such as promoting natural gas usage and export, increasing our energy efficiency, investing in low carbon solutions to our energy needs at home and abroad. So I think this has to be nested in a broader set of policies that do address the issues that you are talking about.

Chairman SHELBY. Mr. Gerard, do you have a comment?

Mr. GERARD. Very briefly. I am also one who believes that human activity has contributed to climate change, and I am not sure what Dr. Zycher is getting at. But, incrementally, keeping the crude oil here and doing it under our environmental standards is a guarantee that it is going to be better than exporting it overseas, that you have got to ship it over there, bring it back, and I can guarantee you that the standards in China, the standards in South

Korea, the standards in Vietnam, the standards in India are not going to be American standards, and we are going to contribute more incrementally to the greenhouse gas problem, and it is going to, again, have an impact on manufacturing in this country, which needs to be propped up by good, sound energy policy.

Chairman SHELBY. Senator Merkley.

Senator MERKLEY. Thank you very much, Mr. Chair, and thank you all for your testimony. I want to explore a different aspect of this.

As oil has been produced in the Bakken area, we have had a lot of oil trains coming down the Columbia Gorge, both on the Washington side of the gorge and the Oregon side of the gorge. We have a lot of towns that are bisected by rail lines, a lot of concern about the possibility of explosions from oil trains. We have two substantial projects under consideration:

One is Port Westward, which is where a lot of oil is going to right now, and then it is exported by barge both to Cherry Point up in the Puget Sound and down to the Bay area.

We also have a proposal for Vancouver, Washington, which is across the river from the major city in Oregon—Portland, Oregon—that would basically be able to accommodate about four unit trains a day, 400 cars a day. That is 400 coming in and 400 coming out. So a lot of concern there about the impact of this oil.

Right now, this vision is all within getting oil to U.S. refineries and Canadian refineries, which are currently exempted, if you will, from the export ban. But what happens—this is a question Oregonians would be very concerned about. What happens in a situation where the U.S. exports oil, lifting this ban? Would it be logical that there would be a massive—a further increase of oil being exported down through the Columbia Gorge? Anyone who feels like they have some insight on this is welcome to address it.

Mr. MUNCRIEF. You know, I do not think there is going to be a rapid increase through the Columbia Gorge of rail traffic carrying crude oil.

Senator MERKLEY. And your thinking, your analysis? See, we have had a massive increase in recent years as Bakken has grown because it is the easiest way to get the oil to key refineries. So we have already seen a direct proportional relationship, and so if it is possible to export overseas as well as just to Puget Sound and the Bay area, the first impulse is thinking it would create a huge incentive to ship additional oil down the Columbia Gorge. But your thinking is different. Would you just explain it?

Mr. MUNCRIEF. Right. Senator, I think most of your export facilities will actually be located in the gulf coast region where you have more of your refining capacity there, as well as a greater network of pipelines.

Senator MERKLEY. So one of the questions then becomes if the oil volume does not increase down the Columbia and that oil that does come down, some of it will be exported overseas in a global market, then that means, going to your point, Mr. Gerard, a challenge for the U.S. refineries in gaining access, if you will, to that oil.

Mr. GERARD. It is clear that where the oil is being produced has to be transformed, transmitted to be transformed to the refineries that are going to transform it. And, again, if it is going to be easier for me to send Bakken crude at a higher price to China, then I am going to take it to some port and get it sent. And the transmission cost is going to be a heck of a lot cheaper than taking that Bakken crude and sending it to Philadelphia or sending it to a Valero refinery on the gulf coast. So those connections of the dots make us very concerned.

I go back to the point I made when I started my testimony. Close to 10,000 workers, many of whom work in the refinery sector, have signed a letter or a petition to this Committee asking them not to lift the crude. In my view, the individual who knows most about how it is going to affect that refinery are the people working in it.

Senator MERKLEY. I think there is a cautionary tale in looking at log exports from the United States. We used to have a structure of a vertically integrated industry from the timberlands to the sawmills, and the logs were essentially processed in the United States into lumber. That has changed. The whole structure of the market has changed, and some of the incentives that encouraged the old structure no longer have an impact. I will not go into all those details.

But I was just looking at a statistic that over a 3-year period from 2007 to 2010, log exports to China increased 23-fold. And if you go down the Columbia River and you look at the log decks or you go over the Oregon coast and you look at the log decks in Coos Bay, they are massive. We are exporting an incredible number of raw logs, and kind of think what this does to the U.S. That means we are Third World Nation. We are exporting the raw resources overseas to be manufactured and then imported back, and that means far fewer jobs in the United States.

I just think we should ponder that a little bit as we wrestle with this issue as to whether the same thing could happen to our refineries.

Mr. GERARD. Senator Merkley, I am absolutely confident that I could come back here in a few years, and you will be right. The fact is that if we are exporting the raw material, we are going to then import the finished product. And we have seen what that has done in our lumber industry. We export raw logs, and we bring back plywood from China that we are not sure how it has been glued together. And someone earlier made the comment—I missed commenting on it—about bread and wheat. We are not going to export all of our wheat so that we cannot afford our bread. We are going to export enough wheat that we can afford bread. So the same thing should apply with logs; the same thing should apply with crude oil. Take care of our industries first, make sure that we have a low-cost energy economy, a low-carbon energy economy, and then what we can spare, we can spare. We can export finished product and bring value-added back and create jobs and, again, strengthen our manufacturing base. We represent 63 refineries and 30,000 workers, and more than 10,000 of them have said, “Do not export our crude. You are putting our jobs at risk.” That is the strongest voice in my head.

Senator MERKLEY. Thank you.

Thank you, Mr. Chairman.

Chairman SHELBY. I want to just thank the panel for participating here today. This is a very important hearing. We have not had one like this in a long, long time. And if you believe in markets—you either do or you do not. I do. And let us——

Mr. GERARD. I go to the farmers' market. That is where I trust them.

Chairman SHELBY. Well, I think you have to think of all markets. Oil and gas is a market in the world. But thank you very much.

[Whereupon, at 11:40 a.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF MICHÈLE FLOURNOY

CHIEF EXECUTIVE OFFICER AND COFOUNDER, CENTER FOR A NEW AMERICAN SECURITY

JULY 28, 2015

Over the last several years, the unconventional energy revolution in the United States has brought about a new era of energy abundance in our country. Since 2008, the United States has expanded its oil production by almost 90 percent—from 5 million barrels per day in 2008 to over 9 million barrels per day today. In 2013, the United States surpassed Saudi Arabia to become the largest producer of petroleum liquids, which includes crude oil, in the world, and the United States is expected to be the greatest source of global oil supply growth through 2020. At the same time, our net oil imports fell from 60 percent to 26 percent of supply over the last decade, and are estimated to fall to 21 percent by next year.

Remarkably, after decades of concern about the scarcity of American energy supplies, we now find ourselves in an era of energy plenty. This has enabled us to become a major exporter of refined petroleum products and a powerhouse in the production of energy-intensive petrochemicals and in industrial manufacturing. And we are now on the cusp of exporting liquefied natural gas.

This American energy revolution has had profound and positive economic benefits for our country, increasing our GDP, helping to drive our economic recovery, improving our balance of trade, reinforcing the continued primacy of the U.S. dollar, and helping to stabilize the global energy market in a period of unprecedented supply disruptions.

To date, however, United States has not become a major exporter of crude oil. This is not for Jack of potential and available supplies. Rather, it is due to antiquated laws that restrict the export of this commodity-laws that were put in place in response to the OPEC oil embargo of the 1970s. Today, these crude oil export restrictions create distortions in the domestic oil market and constrain U.S. oil production growth. Not only do they make energy-driven economic growth less than what it could be, they also hamper the ability of U.S. national security leaders to reap some of the strategic benefits presented by the American energy revolution. Today, we have an extraordinary opportunity to enhance both our economic vitality and our national security by lifting the ban on American crude oil exports.

National Security Implications of Lifting the Crude Oil Export Ban

Lifting oil export restrictions will yield a variety of security dividends to the United States. First and foremost, allowing crude exports would further strengthen our economy—the foundation of our national security. Lifting the ban would result in an increase in U.S. oil production (from approximately 110,000 barrels per day to 2.8 million barrels per day by 2020), a decrease in domestic refined product prices, further growth in our GDP, and an improved trade balance. Shoring up the United States' economic position would, in turn, strengthen our ability to play a much needed leadership role in international security and economic affairs. And we should not underestimate the degree to which becoming an oil exporter could impact perceptions of the United States as a vital global power, helping to discredit erroneous narratives of U.S. decline.

Stimulating U.S. oil production growth also expands energy security by increasing oil supply to the global market from a reliable, stable producer. When more supply originates from producers who are not vulnerable to political instability, conflict, or threats to their energy infrastructure, the overall market becomes more stable. In addition, oil supplies coming from the United States would not have to transit vulnerable choke points like the Strait of Hormuz or maritime hot spots like the East and South China Seas. Lifting the ban would also enable U.S. oil producers to be more responsive to market signals and would give U.S. policymakers more options to use the Strategic Petroleum Reserve in ways that could counteract hostile attempts by foreign producers to manipulate prices. All in all, this would reduce risk to American consumers.

In addition, allowing U.S. oil exports would enhance the energy security of key U.S. partners, from Poland to India to Japan. Indeed, our closest allies in Europe and Northeast Asia would welcome—and have asked for—the unrestricted export of U.S. crude oil. European countries depend on Russia, which has amply demonstrated its willingness to use energy flows as a tool of coercion, for nearly 30 percent of their oil supplies, and they are eager to diversify their sources of supply. Similarly, East Asian allies like Japan, which imports more than 80 percent of its oil from the volatile Middle East, would welcome other, more stable sources of supply. U.S. oil exports would enhance their energy security by expanding the diversity of their oil supply pool and contributing to more efficient global oil markets. This is good for their economic growth as well as our own. And when our closest allies are stronger economically, they are more able to partner with us to address shared security threats and challenges regionally and globally.

Today, the United States is the only advanced country that bans crude oil exports. Lifting the oil export ban will send the right signal to international trading partners that the United States is strongly committed to free trade. This would be in keeping with our WTO commitments and would also support our ability to win any future trade dispute with another Nation that may withhold its natural resources from the market. Shunning protectionism is a particularly important message to send at time when U.S. negotiators are putting the final touches on the Trans-Pacific Partnership—the most consequential free trade deal for the United States in a generation—and exploring a similar free trade agreement (TTIP) with our European allies.

Another significant security benefit associated with lifting oil export restrictions is the greater flexibility this will give us to impose or expand energy sanctions in the future. Sanctions are a critical national security tool alongside diplomacy and military measures in dealing with many of the major security challenges that confront the United States today, from Iran's illicit nuclear enrichment to Russia's destabilization of eastern Ukraine. But imposing sanctions that take oil off the market is a viable policy only if there are adequate alternative oil supplies. The United States should encourage new supplies of oil to enter the market if it wants to sustain and enhance the ability to use oil sanctions as an element of statecraft in the future. Removing the ban on U.S. oil exports will help to accomplish just that by stimulating additional oil supplies.

In sum, by lifting the ban on U.S. exports of crude oil, U.S. policymakers have an extraordinary opportunity to enhance not only our economic vitality but also our national security. We can reap substantial geopolitical advantages by playing a larger role in the global energy market and directly supporting the energy security of our allies. Enabling U.S. oil exports would strengthen our geopolitical influence, leadership, and leverage with allies and adversaries alike. It would help create a more stable and flexible global energy market that would reduce price volatility and thereby support our own economic growth and that of our most important trading partners. And it would bolster U.S. credibility and leadership in the pursuit of free trade and open markets around the world. Pursued alongside responsible policies to promote natural gas exports, greater energy efficiency, and low-carbon fuel sources at home and abroad, lifting the crude oil export ban simply makes sense economically and strategically.

PREPARED STATEMENT OF RICHARD MUNCRIEF

PRESIDENT AND CHIEF EXECUTIVE OFFICER, WPX ENERGY

JULY 28, 2015

Chairman Richard Shelby, Ranking Member Brown, and Members of the Committee, my name is Rick Muncrief. I am the president and CEO of WPX Energy. Thank you for the opportunity to appear for the Committee today. It is an absolute honor to be here.

WPX Energy is a domestic oil and gas producer based in Tulsa, Oklahoma. We employ approximately 1,000 people across our operations. I joined the company a little more than a year ago. By way of background, I am a petroleum engineer and have worked in the Midcontinent and Rocky Mountain regions for most of my career, including 27 years with ConocoPhillips, Burlington Resources, and their predecessors. Before joining WPX, I was at Continental Resources, where I served as senior vice president of operations and resource development.

Four generations of my family have been involved in oil and gas production, including my children. I have worked and lived in towns such as Elk City, Oklahoma; Farmington, New Mexico; Amarillo, Texas; and Billings, Montana. I know firsthand that these communities are the backbone of our Nation's energy engine.

WPX holds premier positions in the western United States. We currently operate in North Dakota's Williston Basin, Colorado's Piceance Basin, and New Mexico's San Juan Basin. When our company closes on a recently announced $2.75 billion acquisition, we will also operate in Texas in the oil-rich Permian Basin.

At WPX, we have a tremendous economic impact in the communities where we operate. We:

- Contract with more than 1,400 vendors and service providers
- Generated $124 million last year in tax revenue for State and local governments

- Invest more than $700 million in local drilling and development

Why We Support Lifting the Crude Oil Export Ban

WPX Energy strongly supports lifting the crude oil export ban, and applauds the leadership and legislative efforts of Senators Murkowski and Heitkamp to do so. The American Crude Oil Export Equality Act (S. 1372) and the Energy Supply and Distribution Act (S. 1312) would provide improved access to world markets for energy producers.

Today I will lay out three primary reasons our company advocates lifting the crude export ban: First, lifting the ban would have an important positive impact on economic development and job growth. Second, given the structure of world energy markets, this policy change would increase the supply of oil on world markets resulting in less volatility in those markets and, ultimately, lower prices at the pump for American consumers. And third, our country's national security would be bolstered and our ties to our allies would be strengthened if crude oil exports were permitted.

Increasing Employment and Expanding Economic Development

If the crude oil export ban were lifted, the positive impact of economic development and job growth would be significant. In fact, the oil and gas industry supports 9.8 million jobs in the U.S. alone with a ripple effect across the economy. [1] For every new oil and gas job created, three jobs are created in the supply chain and six are created economywide. [2] This ripple effect impacts gross domestic product (GDP) as well. Every dollar created in our sector generates two dollars in the supply chain; overall our industry represents 8 percent of our GDP. [3]

We believe strongly that American energy companies should have the opportunity to compete in global markets—just as thousands of other companies do in every other sector of our economy. The current policy handicaps American companies and consumers by limiting markets and stifling opportunities.

I have personally witnessed the booms and busts in our industry. I have also seen monumental advances in technology that are allowing us to accomplish more now than I ever would have imagined in my career.

This restrictive energy policy that is tied to the past worked back in the 1970s but it doesn't work now. This is a critical hour where we have the opportunity to change the policy so that it matches America's power, capacity, and capability to produce record-setting levels of energy.

Our industry has overcome virtually every technical challenge, allowing us to safely develop our Nation's energy resources. Today, WPX is drilling two miles deep and then up to three miles across to limit our activity on the surface of the land. In one of our basins, we have been able to reduce the acreage we need for drilling by 75 percent by drilling 20—or 30 wells—from the same pad. We also recycle water in many of our operations by re-using it again and again to drill and complete new wells. We have re-used some water for as long as 5 years.

For WPX, and many of our counterparts, our growth is restricted by the ban on crude oil exports. Restricting domestic energy producers like WPX from competing in the global market is restricting jobs and economic growth that goes far beyond our own industry. As global markets put a stranglehold on domestic production, many energy producers have no choice but to reduce their rig count.

Consider these facts:

- The U.S. rig count has dropped by 56 percent just since last November. [4]
- Taking just one rig off-line results in the loss of 120 direct and indirect jobs. [5]

Nearly 60 percent of WPX's operations are on federally owned or tribal lands. In 2014 and so far in 2015, WPX has reported and paid more than $202 million to tribal entities for oil and gas royalties. The communities where we operate rely on the

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[1] Price Waterhouse Cooper, "Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2011", pp.6–7, (2013) at *http://www.api.org//media/Files/Policy/Jobs/Economic__impacts__Ong__2011.pdf.*

[2] IHS Inc., "U.S. Crude Oil Export Decision: Assessing the Impact of the Export Ban and Free Trade on the U.S. Economy", in IHS Energy/Economic Report, KF-1 (2014) at *https://www.ihs.com/info/0514/crude-oil.html* (last visited Mar. 16, 2015) [hereinafter IHS study], p.5.

[3] Price Waterhouse Cooper, "Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2011", pp.6–7, (2013) at *http://www.api.org//media/Files/Policy/Jobs/Economic__impacts__Ong__2011.pdf.*

[4] Baker Hughes Rig Count Overview and Summary Count, Comparing Rig Count From November 21, 2014, to July 10, 2015. See also *http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-rigcountsoverview.*

[5] Estimate by the Domestic Energy Producers Alliance.

energy industry to support their local infrastructure, education, social and medical programs and the decreased rig counts have very real impacts on these areas.

Because companies like ours are such economic engines, lifting the ban on crude oil exports is not just a matter for the energy industry; the current restriction is a barrier to economic development in communities across our country. For WPX, it is an issue that directly affects many tribal communities. Increased oil and gas production in these communities where WPX and other energy companies operate can increase funding for critically important programs in these traditionally economically depressed areas.

Lifting the oil export ban would create new markets for us and unleash a new engine of growth so that our company—and other companies like ours—can continue to ramp up investment and create new jobs. During the recent economic downturn, the one bright spot in our lagging economy was the energy sector. Access to areas previously thought impossible to reach were opened and the oil and gas sector was actually hiring and paying strong wages to our employees.

It is this prospect of new, high-paying jobs that has generated broad support for lifting the export ban. A diverse group of think tanks, editorial boards, thought leaders, and former Government officials across the ideological spectrum has highlighted the many benefits of lifting the export ban, including the potential employment gains that would result. [6]

While some labor unions have opposed the policy change, the Laborers International Union of North American (LIUNA) and the International Union of Operating Engineers have both come out in favor of lifting the crude oil export ban because of the positive impact that it would have for workers. In a letter to Congressman Joe Barton, these unions said, "Opening global markets to U.S. producers will support added domestic production that will create hundreds of thousands of new jobs and contribute tens of billions of GDP dollars in the supply chain within the next few years. At the same time, we will put downward pressure on domestic fuel prices, while we provide our allies and trading partners with an alternative to sourcing energy from unfriendly and unstable sources." Expanded markets in the energy sector mean new, good paying jobs. [7]

We have already seen this in many communities—including Native American communities—in the country. As I mentioned, WPX Energy has operations on Indian land in both North Dakota and New Mexico. We have created thousands of jobs in Indian Country. We have put dollars into the pockets of thousands of workers, and provided important economic activity that has resulted in improved schools and public services, and spurred new economic development opportunities on the Reservation.

We are proud of the relationships that we have developed with our tribal partners. Whenever possible, we hire Native American service companies, small businesses that create potent ripple effects in these communities. And this impact would only expand if the export ban was lifted.

In North Dakota alone, we work with more than 450 vendors and service providers—many of which are Native American owned or operated. We also infuse $6.5 million into the statewide payroll and provide more than $150 million in royalties for oil production. These are real dollars going into the hands of real people. Barriers to the energy industry mean barriers to their economic development.

One additional point: As you know, refined products like gasoline are already eligible for export. This is a quirk of the current situation: Would we ever adopt a policy that allows American bakeries to export bread but that does not allow American farmers to export wheat? No, of course not. But that is essentially our policy in the energy sector. Consequently, many refiners have opposed expanded export markets for crude oil because refiners currently have access to American oil supplies at a discounted price because those supplies cannot be sold in the world market.

However, a meaningful shift is happening here as well. Just last week, four major refiners announced their support for lifting the export ban, recognizing the significant economic benefits of expanding the markets for U.S. companies and creating a more resilient world oil market. On July 20, 2015, their letter to the Senate Energy and Natural Resources Committee stated, "[Lifting the ban] will allow for a healthy and vibrant global oil market which will not only benefit our refining sector but aid our economy, keep our skilled workers going strong, and add to our tax revenues . . . . We urge policymakers to consider our views as refiners and consumers of crude oil, and take action to enable the export of domestic crude oil."

[6] For a representative list, see *http://oilexports.com/experts-agree.*

[7] IHS Energy/IHS Economics, "Unleashing the Supply Chain: Assessing the Economic Impact of a U.S. Crude Oil Free Trade Policy", March 2015.

Benefits for Consumers

Clearly, the impact on jobs and the expansion of economic opportunities would be substantial if the oil export ban were lifted. But many consumers and businesses are worried there is a potential downside to expanding these markets—specifically, they worry that lifting the export ban will increase the price at the pump or their cost of doing business. But the reality is that this policy change would not harm consumers and businesses because a more robust energy economy will actually lower prices.

The economic experts have weighed in and concluded that lifting the export ban will not raise gasoline prices for consumers. The Aspen Institute stated that ending the export ban would not raise the price of gasoline, but instead, would put "downward pressure on these prices."[8] The Brookings Institute said, "The increase in U.S. oil production makes world oil prices fall. Accordingly, so do U.S. gasoline and diesel prices, at least temporarily. This lowers the costs of production for all kinds of businesses and makes households better off."[9] And the General Accounting Office (GAO) concluded that, "Consumer fuel prices . . . could decrease as a result of removing crude oil export restrictions."[10]

More than a dozen studies and analyses from a wide range of credible sources have shown that lifting the oil export ban would increase the supply of oil on the world market, which would ultimately reduce the price of gasoline.[11] This reflects a fundamental economic principle: Supply goes up and price goes down. Expanded markets provide more diversity for oil companies and this provides increased stability in both production and price.

Furthermore, on the legislative front, safety nets have been included on this issue of price. Should the export of crude oil result in shortages in the U.S. or domestic oil prices that are significantly above the world price, a reporting and recommendation requirement is triggered that ultimately allows the President to suspend oil exports. We do not believe that this provision will ever be needed, but to the extent that consumers are concerned about potential price impacts, the legislation provides a reassuring exit ramp.

Strengthening Our National Security

Finally, I want to highlight the national security benefits of lifting the oil export ban. One of the best ways to improve and strengthen our national security is through energy self-sufficiency. A robust domestic supply of energy based on free trade and open markets also helps to establish energy independence which is a critical component of economic and military strength in time of crisis.

Beyond that, our ability to help our allies with their own energy security bolsters our own national security. Currently the largest world oil exporters are Saudi Arabia and Russia followed by many other countries in the Middle East like Iraq. Perhaps someday soon, Iran will rejoin that list. Many of our most important allies are highly dependent on these countries to supply their energy needs. These allies are eager to diversify their energy suppliers and the United States would be an attractive, reliable alternative for them. This diversification benefits our security too, because it limits the ability of other, less friendly Nations to disrupt the energy supplies of our allies and provides more economic stability in the Nations that are important partners with the United States.

Additionally, the United States would have more credibility in efforts to impose energy sanctions in the future if it can act as an alternative supplier. To the extent our political leaders want to use sanctions—or the threat of sanctions—against hostile Nations, lifting the crude oil export ban improves our diplomatic clout.

Conclusion

WPX is proud of its record of responsible energy development. We have more than 30 years of industry experience along with 40 local, State, and Federal awards for efficiency, innovation and corporate social responsibility. We have served as an important economic engine in many communities, including Tribal Reservations. We

[8] "Manufacturing and Society in the 21st Century", Aspen Institute, *Lifting the Crude Oil Export Ban: The Impact on U.S. Manufacturing*, by Thomas J. Duesterberg, Donald A. Norman, Jeffrey F. Werling, October 2014.

[9] "Energy Security Initiative, Brookings Institute", *Changing Markets: Economic Opportunities From Lifting the U.S. Ban on Crude Oil Exports*, by Charles Ebinger and Heather Greenley, September 2014 (Policy Brief 14-02).

[10] Government Accountability Office, "Changing Crude Oil Markets: Allowing Exports Could Reduce Fuel Prices", and "The Size of the Strategic Reserves Should Be Examined", September 2014 (GAO 14-809).

[11] A representative list can be found at *http://oilexports.com/wp-content/uploads/2015/02/Factsheet-WTAS__1.pdf.*

can expand our employment rolls and generate new investments, if markets around the globe are open to us.

Our request is a reasonable one. We are not seeking Government money. We are not looking for tariffs on foreign imports. What we seek is a reversal of a policy from the 1970s that just does not fit in today's energy reality in America. Congress should lift the ban on crude oil exports so we can freely compete in the global marketplace. As recently as 2005, with U.S. energy dependence at its all-time high of 60 percent, very few envisioned a world where we would be on a path to energy self-sufficiency and even fewer believed American innovation and ingenuity would take us to where we are today: poised to become a powerhouse in the global oil market. Congress needs to take the sanctions off of its own country. And we need to do it now.

Taking action now is the right thing to do. Lifting the export ban would bring to an end an energy policy that stifles growth, punishes American workers and consumers and puts at risk our national security.

Thank you for the opportunity to testify today and I look forward to answering any questions that you may have.

PREPARED STATEMENT OF BENJAMIN ZYCHER

JOHN G. SEARLE SCHOLAR, AMERICAN ENTERPRISE INSTITUTE

JULY 28, 2015

Thank you, Mr. Chairman and distinguished Members of this Committee, for this opportunity to offer my views on lifting the export ban on crude oil. Ending this ban would be an important dimension of:

- A rationalization of U.S. energy policy narrowly;
- A reform of misguided policies from the past as they have evolved in the face of political and bureaucratic objectives shaped by interest group pressures;
- An ongoing effort to inform the public debate on such important related issues as the construction of the Keystone XL pipeline and the prospects for the export of liquefied natural gas;
- A more general need to increase the importance of economic markets and the overall expansion of free trade as determinants of resource use and as vehicles with which to increase aggregate wealth and individual economic opportunity and well being; and
- A larger defense of individual freedom and competitive capitalism from the cronyism, favoritism, and wasteful subsidies emerging from the politicized allocation of resources that is the inexorable result of a substitution of competition by politics in place of market forces.

The current export ban on crude oil was enacted as part of the 1975 Energy Policy and Conservation Act, and was justified on the basis of two fallacies. First: That the 1973 Arab OPEC oil "embargo" was the cause of the higher oil prices and the gasoline lines and other market disruptions experienced in the early 1970s. Second: That a ban on exports of crude oil would insulate the U.S. economy from the effects of international supply disruptions.

A straightforward economic truth can be stated simply: Abstracting from such minor factors as differential transport costs and the varying characteristics of different types of crude oil, there can be only one price for oil in the world market. A higher price in one region would attract sellers, reducing the price there so as to equalize it with prices everywhere else.

And that is why the 1973 embargo, directed at the U.S., the Netherlands, and some other allies of Israel, had no effect at all. Since there can be only one price in the world oil market, that attempt by Arab OPEC to impose a higher price on those Nations did not succeed; market forces resulted in the reallocation of oil so that prices were equal everywhere. Despite conventional wisdom on this issue, the U.S. faced the same higher international prices as everyone else.

The actual source of the worldwide price increase was not the embargo; it was for the most part the production cutback by Arab OPEC. Persian Gulf production fell from an average of about 20.7 million barrels per day in 1973 to about 18.9 mil-

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The views expressed in this testimony are those of the author alone and do not necessarily represent those of the American Enterprise Institute.

lion barrels per day by 1975.[1] That represented a decline in world production of about 3.4 percent by 1975.[2] A far less important factor was the weakening of the dollar related to the collapse of the Bretton Woods exchange rate system and the decision by the Nixon administration to close the gold window.

Similarly, the gasoline lines and market disruptions were the result of the price and allocation controls imposed upon the domestic market for crude oil and refined products. They were not caused by the embargo: Notice that there was no embargo in 1979, but there was a production cutback in the Persian Gulf as a result of the overthrow of the Shah of Iran, from the 18.9 million barrels per day in 1975 noted above to less than 18 million barrels per day in 1980. But: There was a newly invigorated system of price and allocation controls, and there were once again gasoline lines and market chaos.

This straightforward economic analysis means that the justification for the export ban as a tool with which to insulate the U.S. economy from the effects of supply disruptions and other factors affecting prices was and remains fundamentally flawed. Accordingly: The intellectual and policy justifications for the export ban were bankrupt then and remain so today.

Suppose now that the current export ban were to be removed. With respect to the domestic prices of crude oil, I believe that a repeal of the export ban would increase those prices very modestly, by an approximate amount of $2–3 per barrel. This would be a straightforward supply-and-demand effect reducing the difference between the spot prices for crudes produced domestically and overseas. An obvious example is the price difference between West Texas Intermediate and Brent crudes, about $5.50 per barrel ($48.14 v. $54.62) as of the morning of July 27.[3] That difference is very likely to have been made artificially larger by the export ban.

There is the further matter that an increase in crude exports would have the effect of strengthening the dollar, the magnitude of which is very difficult to estimate among all the many factors influencing the dollar exchange rate. But however difficult to measure, this effect is real, and it would put some downward pressure on the dollar prices of crude oil internationally, thus offsetting to some degree the supply/demand effect that I have just mentioned. And that stronger dollar would increase aggregate wealth in the U.S., which in principle would take the form of a reduction in the overall price of the U.S. basket of goods and services, an effect that again is difficult to measure in isolation.

Given the small price effect of ending the export ban, it is difficult to believe that the narrow employment effects in specific economic sectors would be significant, and it is likely to be the case that those impacts would not be measurable given the normal fluctuations of such employment on an annual basis. But in a larger context, those employment effects would be offset over time by increased employment in other sectors—in particular, import sectors and sectors complementary with them—and by the positive aggregate employment effects of a stronger dollar and the larger economy and increased employment demand resulting from it.

With respect to the U.S. prices of such refined products as gasoline and diesel fuel: Because refined products are not included in the export ban, and thus are traded freely in the international market, it is difficult to see how a repeal of the export ban on crude oil could increase product prices. Instead, ending the export ban actually would put downward pressure on product prices for two reasons.

First: The increase in the international supply of crude oil created by increased U.S. exports would reduce both crude and product prices overseas. Accordingly, product prices in the U.S. would be lower than otherwise would be the case because, again, products are traded more-or-less freely in the world market, creating the one-price outcome.

Second: Both internationally and domestically, the export ban has distorted the allocation of differing types of crude oil among refineries, which are designed in various ways to refine particular crude oil types more efficiently than others. An end to the export ban would improve the alignment of refinery and crude oil characteristics, particularly in the U.S. and particularly over the medium- and longer terms, thus reducing the cost of refining crude oil generally, and therefore of producing re-

[1] See the U.S. Energy Information Administration at *http://www.eia.gov/totalenergy/data/monthly/pdf/sec11_5.pdf.*

[2] That percent decline might seem small, but given low demand elasticities for crude oil in the short run, it yielded large price increases, from $56.07 in 1973 to $104.19 in 1975, in year 2014 dollars. Source: author computations from data reported by the U.S. Energy Information Administration at *http://www.eia.gov/totalenergy/data/annual/showtext.cfm?t=ptb0521,* and by the Council of Economic Advisers at *https://www.whitehouse.gov/sites/default/files/docs/2015_erp_appendix_b.pdf,* Table B-3.

[3] See the daily price data reported at *http://www.oil-price.net/*.

fined products. As an aside, this effect clearly would be one of the hidden benefits of the Keystone XL pipeline were it to be constructed.

Let me make two final points in passing. First: The reduction in international crude prices would have salutary effects in terms of reducing foreign exchange earnings by several unsavory regimes, the Iranian and Russian ones in particular. That impact might be modest; but as far as I am concerned, every bit helps, particularly in terms of increasing energy security in Europe.

Second: The defense of free trade is a crucial component of the larger defense of capitalism and freedom, with important implications for such other specific issues as the prospects for the export of liquefied natural gas. The export ban on crude oil was from the very beginning a deeply perverse policy implemented in a futile attempt to mitigate the perverse effects of other Government policies. Ending the ban would be an important component of a larger reform agenda for this Congress.

I thank you again, Mr. Chairman and distinguished Members of this Committee, and I would be very pleased to address any questions that you may have.

PREPARED STATEMENT OF LEO W. GERARD

INTERNATIONAL PRESIDENT, UNITED STEELWORKERS, AND CHAIR, AFL–CIO LEGISLATION AND POLICY COMMITTEE

JULY 28, 2015

Chairman Shelby, Ranking Member Brown, Members of the Committee. I want to thank you for inviting me to testify today on the critical issue of crude oil exports.

My name is Leo Gerard and I am the International President of the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union—the Steelworkers or USW for short. I am also a sitting Vice-President on the AFL–CIO Executive Council and cochair of their Legislation and Policy Committee. There are 850,000 members of our union—more than 30,000 of whom are employed in the domestic oil and refining industry—and we are the largest industrial union in North America.

While I will focus on the fact that USW represents workers at sixty-three (63) of the Nation's refineries, which accounts for two-thirds of domestic refining capacity across the country, I can guarantee that over 99 percent of our membership has a stake in the crude oil export ban. Congress cannot overlook the negative impact lifting the crude oil ban will have on fuel prices, economic security, and jobs.

The Background

Many arguments in favor of lifting U.S. export controls are based on free market ideology in a world where the largest proven oil reserves are controlled by countries that use an international cartel to influence prices for political reasons. The Organization of the Petroleum Exporting Countries (OPEC) significantly influences oil prices and has used that power to adversely impact U.S. producers and consumers. U.S. export controls were put in place because of actions taken by OPEC Nations when they embargoed oil exports to the United States. Forty years later the Saudi Arabians, who hold the whip hand at OPEC, feeling threatened by shale oil production, got the cartel to agree to pump crude oil into the market to drop crude oil prices—which have fallen by over 57 percent in the last year.[1] It should be noted that Iran is part of this cartel to influence crude prices. Whether Congress approves the Iran deal or not, OPEC will continue to influence global oil prices. Our response should not be to give away the strategic advantage our country has, with its world-leading refining complex.

United States oil production increased 46 percent between 2011 and 2014. There has not been a 3-year increase that large since before the Depression. The United States is producing more oil today than at any point in the past 20 years.[2] Even so the United States remains by far the world's largest importer of crude oil, with over 7.9 million barrels per day of crude imported in the third week of this month.[3]

The increased extraction of crude oil has led to a significant decrease in imports of oil products into the U.S. as refiners use domestic crude. A 19 percent decrease in crude oil imported into the U.S. occurred between 2009 and 2014.

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[1] *http://www.vox.com/2014/12/16/7401705/oil-prices-falling*

[2] *http://www.nytimes.com/2014/01/25/business/us-oil-production-keeps-rising-beyond-the-forecasts.html?__r=0*

[3] *http://www.eia.gov/dnav/pet/pet__movewkly__dc__NUS-Z00__mbblpd__w.htm*

Oil Imports Decreased Significantly From 2009 to 2014 in Thousand Barrels

Year	2009	2010	2011	2012	2013	2014	% change
	3,289,675	3,362,856	3,261,442	3,120,755	2,821,480	2,677,911	19

Growing domestic oil production is providing the United States with a significant economic boost and a measurable reduction in our Nation's dependence on foreign oil. In 2014, about 27 percent of the petroleum consumed by the United States was imported from foreign countries, the lowest level since 1985.[4]

However the U.S. is still nowhere near self-sufficient in oil. In fact, Secretary of Energy Moniz recently stated that the U.S. imports seven million barrels of crude oil per day to meet domestic demand, an amount that is again on the increase. That is more oil imported today than when the export ban was enacted in 1975. Secretary Moniz also noted at a recent House Energy and Power Subcommittee hearing that for every barrel of oil the U.S. would export, we would have to import a barrel to replace it. Meaning, an increase in crude oil exports could lead to another increase in crude oil imports.

Consumers Will Suffer if the Crude Oil Export Ban Is Lifted

U.S. Consumers currently benefit from the lower oil prices caused by OPEC's efforts to control global prices. These savings are substantial with estimates of about $209 billion per year in consumer savings. This translates to $1,064 per driver and $2,182 per family.

As for domestic production, lifting the crude oil export ban will not only hurt refiners and refinery jobs, lifting the ban will impact prices at the pump and eliminate the discount American consumers currently enjoy because of the crude oil export ban. The penalty for the consumer as a result of lifting the export ban would add up to $25 billion per year, or $125.00 per driver and $257.00 per family. In extreme cases it could cause U.S. refineries to close, which could endanger supplies of other refined products such as home heating oil in the Northeast.

Our Nation's oil refineries not only are a vital source for the fuel needed by America's consumers, they also supply necessary fuel and raw materials to America's industries, including chemicals, plastics, and tires; industries that are crucial to the U.S. economy and in which the USW alone represents about 100,000 members.

The public understands this. Hart Research polling conducted in December of 2014 shows that after hearing both sides of the debate, seven (7) in ten (10) voters prefer investing in refinery capacity at home over lifting restriction on the export of domestic oil. In addition, 82 percent of voters support a proposal that would require oil companies to use oil that is produced in the U.S. from public lands and offshore to meet energy needs here at home instead of exporting U.S. oil to foreign countries.[5] Over the last month, more than 10,000 USW members have signed petitions or have written letters to their members of Congress urging the United States to retain the export ban.

Refinery Investments Mean Jobs

The growth in domestic crude isn't moving global benchmark prices, but it has been keeping U.S. gasoline prices down slightly, as new U.S. capacity means it is possible for U.S. refiners to access U.S. landlocked crude. This has fostered significant development and investment across our Nation's refining sector.

For example in the 2012, USW members at key refineries in the Philadelphia area were facing layoffs and permanent closures of their refineries. The east coast was facing a loss of over half of its domestic refining capacity. An economic analysis on the loss of east coast refining in the Philadelphia area showed an impact of more than 36,000 jobs (direct and indirect) and over $550 million in lost revenue for State and local entities. In addition, supplies of vital home heating oil to the region were put at risk.

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[4] *http://www.eia.gov/tools/faqs/faq.cfm?id=32&t=6*

[5] *http://crudecoalition.org/app/uploads/2015/02/HART-POLL-me11457__cap__us__oil.pdf*

Thankfully our union—working with Federal, State, and local officials—found buyers for two of the three refineries. The Carlyle group invested hundreds of millions of dollars into a rapid tank car unloading facility at the former Sunoco refinery in Philadelphia. Moving Bakken fuel from North Dakota to the east coast decreased crude oil imported from Nigeria, an OPEC Nation, by over 90 percent. In addition refined products imported into the east coast also decreased from 1.5 million barrels in 2010 to just over 1 million barrels in 2013 as the refineries ramped up to full production.[6] The export ban kept thousands of workers employed in the region and backed out not just OPEC crude oil but also ensured that more refined product would be made on our shores.

U.S. refiners are making investments to realign their processes to specialize in the lighter domestic crudes that are produced here from shale formations. This realignment will allow for greater refining efficiency and increased production. For example, U.S. refiners have added 100,000 additional barrels per day of capacity just in the last year. A recent analysis, based on a survey of refiners indicates that the industry plans to step up its consumption of light domestic crude by more than 730,000 barrels per day over the next 2 years.[7]

What does this refinery investment look like? If the crude export ban stays in place, refinery investments of about $8.7 billion over a 10-year period are forecast to bring in some $14.6 billion of additional revenues. These projects are located in multiple States from Texas to Montana to California to West Virginia.[8]

What does this investment and annual refining look like in terms of employment and wages for refining work? According to the 2012 Economic Census performed by the Census Bureau, the average job in the refining sector paid over $100,000 per year, supported by $1.8 million in value-added per employee.

According to the Economic Census, while the industry paid its employees $9.7 billion in total compensation, it also spent $8.9 billion on professional services, repair and maintenance services, and leased employees, which among others includes a significant number of workers in building and construction trades occupations.

Value-Added Product

U.S. refineries are exporting more value-added refined product now than ever before. Our members are not only producing most of the oil for domestic consumers but are expanding into the global market because of the crude oil export ban. This has meant increased domestic refinery investment, increased employment, and higher utilization rates at refineries.

For example, U.S. exports of refined petroleum products to Latin America have soared over the past decade as strong economic growth in the region boosted demand while inadequate refinery investment limited supply. Mexico, a country which I'm tired of seeing U.S. jobs move to, is the biggest buyer of U.S. oil products importing 646,000 bpd in the first 4 months of this year, up 25 percent from 2014. Brazil, the second-biggest buyer of U.S. petroleum products, increased its purchases by one percent to 220,000 bpd in the first 4 months of the year. The U.S. exported 153,000 barrels per day to Columbia in the January—April 2015 period.[9]

We should not trade this strategic manufacturing advantage for short term producer gains.

Lifting the Crude Oil Export Ban Means More Refined Oil Imported Into the U.S.

Let's be clear, exporting a natural resource to have it refined overseas and imported back into the U.S. is a net job loser for America. One only has to look at the world's largest oil-refining hub project, the Jamnagar Oil Refinery in India, which boasts on the company's Web site that the gasoline produced at the facility is "for export, primarily to the United States and Europe" to get a sense on where U.S. refining jobs will go if we lift the export ban.[10]

In addition Saudi Arabia, Kuwait, the U.A.E., Qatar, Bahrain, and Oman will raise their combined refining capacity to 5.4 million barrels per day this year, an increase of 17 percent from 2014, according to Vienna-based JBC Energy GmbH.

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[6] *http://blogs.platts.com/2013/05/17/us-east-coast-oil-refineries-enjoy-a-stirring-comeback/*
[7] *http://fuelfix.com/blog/2015/03/18/report-refiners-can-handle-the-flood-of-light-u-s-crude/*
[8] *http://www.bakerobrien.com/bakerobrien2/assets/File/B&OB%20LTO%20Capacity%20Study.pdf*
[9] *http://in.reuters.com/article/2015/07/17/oil-latam-imports-idINL1N0ZI2K520150717*
[10] *http://www.bechtel.com/projects/jamnagar-oil-refinery/*

These Persian Gulf countries will be able to process six million barrels per day by 2020, according to reliable estimates.[11]

Digging into the archives of some of the organizations that want to lift the ban, we find they have given very good reason why the ban should not be lifted. The American Petroleum Institute had this to say in 2011, at a time when it was making the case for domestic refining:

> The United States will depend on refining petroleum-based products for much of its energy needs for decades to come. And, domestic refineries are competing directly with petroleum product imports. Because the refining industry operates on a global basis, America faces the choice of either manufacturing these products at home or importing them from other countries.
>
> U.S. refinery closures would result in domestic job losses and lower Government revenue in the form of taxes. It would also result in a greater reliance on foreign refineries, such as those being developed in the Middle East and India."[12]

Domestic Refining With U.S. Labor, Environmental, and Health and Safety Laws Not Qatar's

Oil refining is dangerous work. In the last round of bargaining with refiners, our union fought successfully to increase health and safety standards and safety training programs at U.S. refining facilities. We fought to better manage fatigue standards and for a fair return on the work our members provide for the refining industry. Over the past 5 years, twenty-seven (27) USW members in the domestic refining sector have died.[13] As a union, we do everything we can in the way of training our members and consistently pushing for stronger health and safety standards to prevent these needless deaths. Unfortunately, the strong standards governing occupational health and safety the U.S. requires of industries like refining are not universal across the globe.

Lifting the crude oil export ban will send crude oil into countries that do not sustain the same environmental, labor, health and safety standards that we strive for and require as a Nation. I know how many workers died refining the products U.S. consumers used because of OSHA reporting requirements. Do we really want American crude, already extracted at a heavy cost to workers lives, to be refined in places like Qatar? A report by Qatar's Government found 964 deaths of migrant workers from just India, Nepal, and Bangladesh in 2012 and 2013 but the press has been unable to verify those accounts and they are likely higher. The International Trade Union Confederation has called the State "a country without a conscience."[14] Which country would you rather have the gas in your car come from?

Other Developments

It will also take some time to sort out the effects of the Department of Commerce's "clarification" of policies regarding processed condensate. Robust exports of condensate are possible, and reports of both condensate exports and investments in condensate splitters highlight significant domestic investment. While condensate exports represent volumes of oil that could otherwise have been processed into completed fuels in the United States, the investments in splitters are not small projects. For example, Magellan Midstream Partners LP has invested $400 million in a 100,000 bpd condensate splitter to fall under the Department of Commerce's guidelines.[15]

Refiners face the implementation of a number of regulatory standards in the near future which will require facility investments; Tier 3 automotive and fuel standards, the Renewable Fuels Standard (RFS), EPA State implementation plans, and other regulations will require significant but attainable modernization efforts. The domestic crude export ban continues to provide independent refiners with a significant cost advantage to allow modernization that will ensure the long-term viability of U.S. refineries and jobs.

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[11] *http://www.bloomberg.com/news/articles/2015-03-16/saudi-arabia-will-need-more-oil-to-feed-local-refinery-expansion*

[12] *http://democrats.energycommerce.house.gov/sites/default/files/documents/Testimony-Markell-EP-Energy-Markets-2015-3-3.pdf*

[13] *http://www.usw.org/blog/2015/the-words-of-dead-workers*

[14] *http://www.washingtonpost.com/blogs/wonkblog/wp/2015/05/27/a-body-count-in-qatar-illustrates-the-consequences-of-fifa-corruption/*

[15] *http://www.ogj.com/articles/2014/12/epa-approves-magellan-s-corpus-christi-splitter-project.html*

Federal Investment in Infrastructure Could Increase Efficiency

Our members want to take U.S. crude, refine it for U.S. consumption, and create value-added products for the U.S. market and for export. However, to do so, investment in improving and repairing our transportation and energy infrastructure, which includes pipelines, needs to be a priority. Refiners say their biggest constraints aren't at their facilities but in the infrastructure that delivers crude to them. A recent report on the U.S. refinery system done by the American Fuel and Petrochemical Manufacturers highlights that U.S. refining is not a bottleneck to producing and using more very light U.S. crude oil over the next few years. Instead the report highlights an "inadequate delivery infrastructure [that] has delayed U.S. refinery access to the new production."

Before we explore shipping domestic extracted crude overseas, we should be looking at how to better foster oil pipeline infrastructure, and increase the close to $14 billion in investments that took place last year. [16] Improving the paths for domestic crude to reach U.S. coastal markets will further advantage U.S. refining, and make much more sense than allowing crude exports.

Steel Products Not Impacted From Lifting the Crude Oil Export Ban

As the largest union in not just the oil industry but also the largest union in paper, rubber, chemicals, glass, and steel, we had to carefully weigh our position on the impacts of lifting the crude oil export ban. We are currently in bargaining for new labor agreements in steel. The global overcapacity in steel manufacturing has hammered the U.S. industry. Many of you supported our Oil Country Tubular Good (OCTG) trade case and I want to address why we believe lifting the crude oil export ban is no quick fix for the U.S. steel industry. First lifting the ban provides no guarantee that domestic steel companies will manufacture the OCTG that goes into shale production. At the height of OCTG demand, domestic steel producers filed a trade case and the International Trade Commission found that the domestic industry's market share decreased from 53.7 percent in 2010 to 50 percent in 2012. This decline was even more remarkable given the increase in domestic production capacity during this period. [17]

Steel pipe inventories were already at astronomical levels prior to the OPEC caused oil crash, as importers brought in large amounts of pipe to avoid OCTG tariffs. [18] This has created a glut from which we have yet to recover and more importers continue to enter the market.

Lifting the crude oil export ban will mean that crude oil will go to countries such as China. This will only provide an added benefit to a Nation that consistently engages in trade practices that undermine U.S. jobs and manufacturing and currently has over 600 million tons of excess steel capacity. [19]

Who Is on the Side of Workers and Consumers?

For too long I've seen our country trade away USW jobs with unbalanced trade agreements, inadequate enforcement of our trade laws, and lack of real investment in our infrastructure, workers, and industries. Unintentionally, Congress created an industrial policy with the crude oil export ban and by Congress lifting that ban, working families will see increased gas prices at the pump, layoffs at refineries, and economic devastation in refinery communities.

In July 2014, the AFL–CIO Executive Council unanimously passed a policy statement opposing lifting the existing restrictions on crude oil exports, titled "America Should Exploit the Advantages of Domestic Oil Production, Not Give Them Away". A copy of the policy statement is attached to my written remarks [*Ed.*—See link in Note 20.] but the last sentence sums up our position on why the crude oil export ban needs to stay in place. "American ingenuity and hard work have put the United States in the fortunate position of being the world's top oil producer and far and away the world's top oil refiner, and has given the America people more energy security than we have had in decades. The AFL–CIO believes the Nation should build on this success to create prosperity and restore the middle class." [20]

Thank you for your time and I look forward to any questions you may have.

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[16] *http://www.ogj.com/articles/print/volume-112/issue-9/special-report-pipeline-economics/crude-oil-pipeline-growth-revenues-surge-construction-costs-mount.html*

[17] *http://www.kslaw.com/imageserver/KSPublic/library/publication/2014articles/3-26-14_Law360.pdf*

[18] *http://www.metalbulletinresearch.com/Article/3319862/Inventory-overhang-prevents-OCTG-price-increases-Americas-Market-Analysis.html*

[19] *http://crudecoalition.org/us-crude-oils-next-stop-china/*

[20] *http://www.aflcio.org/About/Exec-Council/EC-Statements/America-Should-Exploit-the-Advantages-of-Domestic-Oil-Production-Not-Give-Them-Away*

RESPONSES TO WRITTEN QUESTIONS OF SENATOR BROWN FROM MICHÈLE FLOURNOY

Q.1. In your testimony, you noted that "enabling U.S. oil exports would strengthen our geopolitical influence, leadership, and leverage with allies and adversaries alike." However, the Center for a New American Security, in a 2010 publication, "recognize[d] that global climate change is a matter of national security."

A.1. Indeed, climate change is a matter of national security. In prior research and publications at CNAS, my colleagues have highlighted the impacts of a changing climate on U.S. security and our military, including planning and operations. For instance, many military bases are vulnerable to sea level rise and extreme weather related events. Military planners must consider how their operating environments will change as a result of climate change and the implications this will have for force posture and equipment. Moreover, climate change can exacerbate existing weaknesses and vulnerabilities in fragile countries. The increased likelihood for instability and perhaps conflict in such areas may have repercussions for the United States and our security requirements.

Now, in a period marked by war fatigue, limited economic resources, and an expanding number of national security concerns, the United States would benefit from an addition to its national security toolkit that leverages its resources rather than strains them. Our energy assets can be a positive contributor to U.S. geopolitical influence, international leadership capacity, and our relations with allies and adversaries. By allowing oil exports, the United States will enhance stability and reliability in the international market for oil, a critical commodity for the global economy, which is paramount for our security and that of our allies. In turn, this will make us better able to counter instability and threats to our security when they occur.

Q.2. How would you reconcile leveraging our Nation's geopolitical influence from enabling U.S. oil export with the Nation's responsibility to be a leader in reducing emissions and mitigating climate change?

A.2. Open energy trade and combatting climate change are both matters of national security, but they are not mutually exclusive. The United States can lead on both by choosing the appropriate mix of policy actions.

Q.3. Is the national security of the U.S. compromised by increasing global availability of fossil fuels, and emitting more greenhouse gases? If so, what do you think should be done, as a policy matter, to mitigate that concern?

A.3. An increase in emissions of greenhouse gases, caused by increased use of fossil fuels, can contribute to climate change, the environmental effects of which are a national security and global challenge for the United States and other countries alike. However, maintaining current restrictions on U.S. oil exports in order to achieve environmental goals is not an effective approach and overlooks a wide variety of more efficient, direct, and worthy policy initiatives that could meaningfully curb emissions in the United States and elsewhere. Oil is fundamentally a global commodity. Oil production and consumption will grow in the United States and in countries around the world regardless of export decisions made in the United States. The United States must do its part to curb emissions in the United States, at the consumer level, and also through careful regulation to ensure that energy is produced and transported in the United States with de minimus levels of emissions. Such efforts to reduce carbon emissions must be pursued on a priority basis at the local, State, and Federal levels, and accompanied by parallel measures in other countries. Effective emissions mitigation policies include raising standards for vehicle fuel economy, including heavy-duty vehicles, toughening limits on emissions from existing power plants and industrial facilities, and implementing regulations to limit emissions in the production of energy, including efforts to curb flaring of natural gas. Additionally, through international forums, such as the United Nations and multilateral development institutions, the United States can play a leading role in urging foreign countries to curb their own emissions, and improve resiliency and adaptation measures to manage their unique national security challenges posed by climate change.

Q.4. Would you couple a policy favoring export of U.S. crude oil with a national effort to reduce overall carbon emissions? If so, what would such a combined policy look like, from your perspective?

A.4. Yes. A national effort to reduce carbon emissions must be a necessary complement to a policy to encourage the responsible production and free export of U.S. energy resources. Such a policy approach would include restrictions lifted on the export of crude oil along with many of the energy efficiency and demand constraint policies outlined in the previous question.

Q.5. Could the goal be accomplished with increased administrative licensing, instead of a complete legislative lifting of the ban? Why or why not?

A.5. An Administration approach to lifting the oil ban could be a successful mechanism to allow for the unencumbered export of crude oil from the United States. Action by Congress to lift the ban would provide a more permanent solution, however, and would express a broadly shared view on U.S. energy policy that will constitute a clear and helpful signal to our allies, adversaries, and to potential investors in the sector.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

LETTER FROM EDWARD CROSS, PRESIDENT, KANSAS INDEPENDENT OIL AND GAS ASSOCIATION, SUBMITTED BY SENATOR MORAN

Business Columns & Blogs JULY 23, 2015

Crude oil exports and the U.S. role in global energy production

Over the past several years, our nation has left behind decades of energy scarcity and has become a worldwide leader in energy production.

Fossil fuels have led the way and will continue to take the lead in providing most of the world's energy needs well into this century.

President Obama's Energy Information Administration estimates that 25 years from now, fossil fuels will account for 80 percent of the country's energy consumption. Today, the U.S. is the number one producer of oil and natural gas in the world. We should take full advantage of this unique global energy leadership position.

The U.S. energy renaissance is endangered by two key factors: 1) OPEC manipulation by predatory pricing practices to drive U.S. producers out of business, and 2) The combination of restricted U.S. refining capacity and an archaic export ban on U.S. crude oil.

Lifting the ban on U.S. crude oil exports would add to GDP growth, reduce the U.S. trade deficit, de-intensify the Middle East's strategic importance, end OPEC dominance, reduce European allies' dependence on Russia, put Americans back to work here, lower and stabilize gasoline prices for U.S. consumers and more.

Harnessing the benefits of America's energy renaissance will require lawmakers and regulators to re-examine policies that were enacted long before the U.S. transitioned from a period of energy scarcity to our current position. In the long term, any oversupply of unrefined crude oil may discourage more energy production here at home. Lifting the crude oil export ban would allow U.S. oil producers to stay in the game.

Even if margins are low, revenue from new global markets would allow U.S. producers to compete for a share of the world market and narrow the price differential between global oil price and that received by U.S. producers. So, if U.S. crude oil can reach the global market, then consumers should begin to see higher global supplies, more production and consumer-level benefits.

We must lift our own self-imposed crude oil export restrictions. In a domestic market awash with oil, keeping the 1970s-era crude oil export restrictions in place discriminates against U.S. producers and threatens investment in new supply, thereby jeopardizing economic security and trade gains from the energy sector.

Policymakers should lift the crude oil export ban to bring export policy in line with present market circumstances, to promote free trade and responsible growth in the energy sector, and to reap the geopolitical advantages of having a larger and more flexible role in the global oil market.

We are in a new era of American energy, but our energy trade policies are stuck in the 1970s. According to recent studies by the Energy Information Administration and others, lifting the 1970s-era restrictions on U.S. crude oil exports would lead to further increases in domestic oil production, resulting in lower gasoline prices while supporting more than 300,000 additional jobs this decade.

The additional crude oil supply in the global crude oil market would lower gasoline prices by an annual average of 8 cents per gallon, according to the studies.

It is time to let free trade unlock more of the benefits of our energy abundance for U.S. consumers and further strengthen our position as a global energy superpower.

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