

U.S. House of Representatives Committee on Agriculture: Energy and the Rural Economy, the Economic Impact of Exporting Oil

**Testimony by:
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July 8, 2015

Chairman Conaway, Ranking Member Peterson, and members of the Committee, I appreciate the opportunity to testify before you on the immense changes in the energy market, its impacts on the rural economy, and the importance of crude exports to maximize these benefits.

I appear before you in my capacity as Senior Director for IHS where I lead the company's short term crude oil markets team. My work through IHS has involved me in two landmark studies on crude oil exports¹². IHS is a global consultancy that specializes in energy, capital-intensive industries, data and analysis with a worldwide presence.

Today I want to address the recent changes in the global oil market, North America's critical place in it, and what it means for our rural areas. I will also address the importance of the crude export issue to fully maximize what the US oil boom can offer, particularly to rural economies.

The catalyst for the oil price decline that started last summer was the partial (and temporary) return of Libyan production. But it was the underlying growth in US oil production from 5.6 million barrels a day (MMb/d) in 2011 to the current 9.2 MMb/d that

¹ US Crude Oil Export Decision: <https://www.ihs.com/Info/0514/crude-oil.html>

² Unleashing the Supply Chain: <https://www.ihs.com/Info/0315/crude-oil-supply-chain.html>

sustained this price drop. OPEC's decision last November 27 to not cut production in the face of growing volumes, not just from United States shale oil, but also the Gulf of Mexico as well as Canada further hastened the price decline. OPEC's decision, reaffirmed again in June, appears to have marked the beginnings of a serious shift in how supply and demand is balanced in the global market.

The boom in US production has the potential to upend the need for a formal market balancer, leading to lower oil prices for consumers, while increasing energy security for not just the US but the world. This is possible not only because of the large production volumes that US producers have brought to the market, but because of the character of those flows. Conventional production projects can take years to finance, plan and bring to the market. US shale producers can do it in 4 months. Globally, conventional production has a decline rate of 5-6%, meaning a project will be producing that much less each year. US shale production has an initial decline rate of about 50%. These two factors allow the US shale system to react quickly to market signals to bring more oil onto the market, and a lack of investment when prices turn downward can quickly reduce supply. This shift from OPEC to the market-driven forces of shale oil is far from certain and far from complete and it could be reversed.

The US has a liberal trade policy for natural gas, coal, refined products and processed condensate. It also allows oil exports to other countries in certain, very specific cases. Allowing US producers to seek out international markets for their product will allow them to receive global prices, keeping the "laboratory" of US shale technology and production fully open for business, while supporting job growth across many industries and in

places far from the oil fields. It will also help to lower the price of Brent, the benchmark price for global oil, much as the increase in production already has. Lowering the Brent price is the access point to lower US gasoline prices as U.S. gasoline prices are linked to the Brent world price, not the domestic WTI price.

To fully maximize US savings at the pump, exports should be liberalized to ensure this dated policy does not cause an unnecessary drag on American productivity, while hampering our ability to exploit fully the national security benefits from this energy resurgence. The reasons are intertwined with the nature of the American refinery system and the price discounts that American oil producers must frequently take in order to sell their products competitively to refineries, particularly along the Gulf Coast, which holds over half of the nation's total refining capacity. Over \$85 billion has been spent in the past quarter century to reconfigure these refineries to process heavy oil imported from countries like Venezuela, Mexico and Canada. The United States contains the largest refining capacity of any country in the world, with 139 operating refineries with a combined crude oil distillation capacity of about 18 million B/D. The US refining system is characterized not only by the number and size of refineries but also by a high number of world-class, high-complexity, full conversion refineries with a substantial degree of petrochemical and specialty products integration.

In this complex refining system, if the crude quality varies enough, the refineries cannot run optimally within their designed operating parameters. In the Gulf region, most refineries are configured to process heavy crude oil. When using light tight oil, Gulf refineries operate inefficiently. Refineries are now working to re-orient to take

advantage of this new domestic crude, investments that will largely continue even if the export ban was lifted.

Unfinished products are the result of the current crude mismatch, which have a lower value because they require further processing to be upgraded into gasoline, jet and diesel fuels. In some cases the crude quality mismatch is large enough that a refinery will have to reduce the crude oil throughput to process additional volumes of light tight oil. As a result, there are limits to how much of the new, domestically produced light tight oil the refining system can efficiently and effectively process. To fully use light tight oil, many Gulf Coast refiners often require a price discount. Allowing crude oil exports would allow light tight oil (i.e., WTI) to sell at higher world prices. In *U.S. Crude Oil Export Decision*, IHS estimates that eliminating the WTI discount would incentivize nearly \$750 billion more in investment from 2016 to 2030—and increase oil production by 1.2 million B/D.

The IHS report, *Unleashing the Supply Chain*, [\[1\]](#) fully documents the benefits across the economy from 2016-2030, and I recommend it to the Committee members and their staff to fully understand the benefits to your districts. For the entire US the increase is stunning:

- \$86 billion in additional GDP,
- about 400,000 new jobs annually, many of them in rural areas
- 25% higher pay for workers in the energy industry supply chain – an additional \$158 per household, and
- \$1.3 trillion in federal, state and municipal revenue from corporate and personal taxes.

The benefits accrue across most of the United States, not just oil producing states like Texas. It also touches states like Minnesota, New York, and Massachusetts, and Michigan – with little or no oil production -- also benefit substantially in terms of economic activity and jobs, owing to the interconnected nature of U.S. supply chains. The report affirms earlier research that eliminating the export ban would provide significant benefits while reducing gasoline prices by 8 cents per gallon.

Eliminating the crude oil ban proves even more important when oil prices are low and companies are laying off workers which slows the benefits to the interconnected supply chain. For example, if Brent crude (the international standard) trades in the range of \$55/barrel and WTI trades in the United States at around \$45/barrel, many companies will be on the margins of their new well investment breakeven point. In such a case, a small price change can have a major impact on supply because it can make or break the profitability of a significant share of tight oil producers and because it may determine whether an investment decision is made or not. Crude oil production thus drops even more sharply when prices are low and producers must take further price cuts to sell to domestic refiners if they cannot export. A \$3 per barrel change in a \$50 per barrel price environment can have the same effect as a \$10 change in a \$100 per barrel environment.

Energy flows into and out of the United States have already provided significant benefits to the region and the world. In July 2010, the United States imported 1.1 MMb/d of oil from Nigeria. Because of US supply, this has shrunk to nearly nothing, while at the same time we are providing a large share of its refined products (diesel, gasoline, etc) from the United States. The change in refined product flows to Nigeria reflects a broader

change in U.S. flow patterns for gasoline, diesel and other important consumer fuels.

Ten years ago this month, the United States net imports of refined products was over 2 million barrels per day. This has now reversed direction and the US net export balance is over 2 million barrels per day of exports. US refiners are some of the most advanced in the world, and with low cost inputs they have been able to further exert their global standing, providing not just US consumers with valuable fuels, but consumers around the world.

So why do we have the ban, and is there any reason to modify it? Its existence is due to an anachronism that grew out of a period of scarcity in the 1970s when the United States imposed price controls on oil and banned the export of oil in order to support the price controls. In the wake of the 1973 Arab oil embargo, the Emergency Petroleum Allocation Act of 1973 allowed President Nixon to set price controls and allocate oil to end users in the United States. The Energy Policy and Conservation Act of 1975 prohibited the export of crude oil and natural gas produced in the United States, with some exceptions. The US system of price controls on oil was abolished in 1981, as was, a few months later, the ban on the export of oil products. However, illogically, the ban on crude oil exports was retained even though the rationale provided by price controls had disappeared. The United States now has the fastest growing oil production in the world. Since 2008, American entrepreneurship has increased U.S. crude oil output by ~ 81% -- 4.4 million B/D principally of light tight oil, such as Eagle Ford in south Texas, Bakken in North Dakota and West Texas Intermediate (WTI). This increase is the fastest in US history and exceeds the combined production gains from the rest of the world. The commercial and technical reasons for this increase in

production are well documented, including the May 2014 IHS report, called [U.S. Crude Oil Export Decision](#). The conditions that justified the crude oil export ban in 1973 no longer apply.

I appreciate, Mr. Chairman, your leadership and that of this Committee to address these critical issues for US, regional and global energy security. Thank you for this opportunity to testify before your committee. I welcome the chance to respond to your questions.

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