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## Energy Research & Social Science

journal homepage: [www.elsevier.com/locate/erss](http://www.elsevier.com/locate/erss)



Original research article

# A crude reversal: The political economy of the United States crude oil export policy

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### ARTICLE INFO

#### Article history:

Received 25 November 2016

Received in revised form

19 December 2016

Accepted 22 December 2016

Available online xxx

#### Keywords:

Crude oil exports

United States (US)

Shale and tight oil revolution

Public policy

### ABSTRACT

Why did the United States (US) lift its forty-year old oil export ban in 2015? Press coverage has offered various answers, such as the decline in crude oil prices and the rise of US tight oil production. Yet, these explanations are incomplete. Prices have declined in the past without a policy change and, in spite of the shale revolution, the US remains a net oil importer. Here, we argue that the repeal of the ban was driven by the confluence of multiple streams in the policy process: a policy problem created by the spread between US and international crude prices, a policy solution advocated by a constituency with growing voice and power, and a window of opportunity offered by falling international oil prices and the budget deal in late 2015. The analysis is a reminder that the policy process behind ostensibly rational energy policies is often less coherent than might be assumed.

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## 1. Introduction

On December 18, 2015, President Obama signed into law an act that repealed a forty-year old export ban on crude oil. The export ban was originally adopted in the 1970s in response to concerns about oil scarcity, and to uphold the domestic price controls introduced by President Nixon. Those price controls were abolished in 1981, thus eliminating part of the original rationale for the export restrictions, but the ban remained in place for decades. Its durability and supposed contributions to America's energy security once made repealing the export ban "unthinkable," according to a senior energy adviser to President Obama [1]. Yet that is precisely what happened, rather suddenly, in 2015. How did this historic shift in American energy policy come about?

In the absence of scholarly answers, some analysts offered flawed and incomplete explanations. For instance, media reports suggested that the decline in global oil prices in 2014–15 drove oil companies to lobby for the policy change [2]. But prices had declined in the past, such as in the mid-1980s, and there was no change in policy. Others just pointed to booming US crude production since 2008 as the main catalyst for change [3]. Yet, in spite of its fracking boom, the US remains a net oil importer, consuming more

than it produces. Something else had to be going on to explain the sudden change in US policy.

The answer to this puzzle lies with certain changes in the political economy of oil. More precisely, we argue that a multiple streams model of the policy process best explains the US policy shift on oil exports [4]. That model suggests that policy change only occurs when three separate 'streams' come together at the same time: a recognized policy problem (the problem stream), a feasible policy solution (the policy stream), and a set of policy makers with the motive and opportunity to turn it into policy (the political stream). In 2015, that combination was finally in place, in the context of a grand bargain to pass the government's budget and fewer concerns about potentially increasing gasoline prices for American motorists. The oil export decision thus serves as a potent reminder that energy policy-making is often less coherent than it might appear.

Our analysis also speaks to the field of international relations, where energy is still understudied [5,6]. Where they exist, studies tend to focus on international organizations like OPEC and the IEA rather than on national-level foreign policy related to energy [7,8]. Social scientists are especially negligent of the political economy of energy policy [9,10]. Instead, research on oil and energy tends to focus on security dimensions [11–13]. Yet the security rationale for the US crude oil ban, to the extent that there was one, had not changed in 2015: the US remained a net importer of oil. To understand the policy shift, one has to look at the changing political economy of the US oil industry and the particularities of the policy process.

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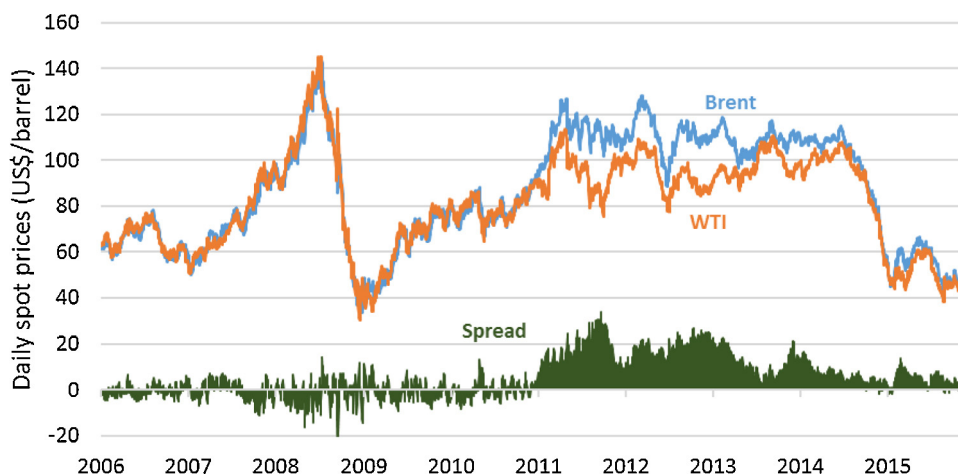


Fig. 1. The Brent-WTI spread was historically large between 2011 and 2015.

Source: US Energy Information Administration.

This study is structured around three questions. First, why was the export ban in place for forty years? Second, what changed in 2015 that led Washington policymakers to remove the ban? And third, what are the potential international implications of lifting the ban for energy markets, climate change and geopolitics?

## 2. The origins of a forty-year old oil export ban

### 2.1. The roots of US oil trade restrictions

The US began to restrict oil trade in the 1950s, at a time when rising volumes of cheap foreign oil threatened domestic production. In response, President Eisenhower began to limit imports of crude oil. The import restrictions accelerated the depletion of domestic reserves and had to be gradually eased in the 1960s. In the early 1970s, another interventionist policy was introduced when President Nixon began implementing wage and price controls, including oil price controls, as a means of curbing rampant inflation. While the price freezes on most goods were removed within the next three years, those for oil continued for the next decade. Oil exports were not an issue at first, as the price of crude within the United States was higher than on the global market, a result of US protectionist policies [14,15].

Then came the 1973 Arab oil embargo, leading international oil prices to rise and causing an oil scarcity panic. This event triggered the Nixon administration to put in place oil export restrictions. Regulation was accomplished under three laws, and reflected specific motivations ([16]: 770–774; [17]). First, the Trans-Alaska Pipeline Authorization Act, passed several weeks after the Arab oil embargo in 1973, sought to regulate the development of Alaska's vast North Slope oil resources, which had been discovered in 1968, but were held up by environmental concerns and a debate over the most appropriate pipeline route to ship the crude. The 1973 act cleared all legal hurdles against the construction of a pipeline to the port of Valdez, but it also forbid the export of the crude. The export ban reflected energy security concerns and it was a major victory for US maritime interests, since the 1920 Jones Act required that cargoes shipped between US ports be moved by US-flag vessels only [16,18].

Second, the Emergency Petroleum Allocation Act (EPA) of 1973 reflected domestic price controls. In October 1973, the Arab oil embargo ratcheted up international oil prices relative to prices within the United States [15]. This gave US oil producers an incentive to sell abroad at higher prices, which would have undermined the domestic price regulations. The exports of crude and refined

products were therefore quickly subjected to regulation and licensing under the Export Administration Act of 1969 [17].

Third, the export ban under the Energy Policy and Conservation Act (EPCA) of 1975 reflected the additional concern over domestic energy depletion. Even though the Arab oil embargo ended in March 1974, heightened concern over oil shortages and security of supply persisted.<sup>1</sup> The EPCA therefore reinforced the export ban regime. Some exceptions were allowed but only if they were deemed to be in the national interest [17].

### 2.2. Actions and attempts to weaken export restrictions

In April 1979, President Jimmy Carter started a phased decontrol of crude oil prices as part of an effort to stimulate domestic production. It was also part of a package deal at the G7 with Germany and Japan promising to reflate their economies in exchange for US oil price decontrol [19]. In his very first executive order upon entering office in 1981, President Ronald Reagan eliminated the remaining price controls for oil and refined products. In the same spirit of liberalization, the Department of Commerce removed quantitative limits on the export of all refined products like gasoline and diesel in October 1981. The remaining ban only applied to unrefined crude oil.

The ban on crude oil would also come to be challenged. In 1981, for example, a proposal was made to lift the export ban for Japan in order to strengthen the bilateral ties and as a remedy to the growing US trade deficit with the country. Three years later, Senator Frank Murkowski (R-Alaska) undertook a more determined effort to permit crude oil exports pursuant to a treaty [16]. Those early efforts were defeated because of two reasons. First, the US crude export prohibition had been made more secure by the amendments to the Export Administration Act of 1977 and 1979, which made it extremely difficult to export oil since the President would have to find that such exports would "have a positive effect on consumer oil prices" ([20], p. 541). Second, there was vehement opposition from vested interests such as the labor unions who argued that, if the oil was exported to Japan, "[e]mployment in shipyards and the construction industry will be exported along with Alaska oil" (cited in: [20], p. 541).

Eventually, some of the efforts for change bore fruit and the crude export ban became subject to multiple exemptions, includ-

<sup>1</sup> One common definition of energy security is "the reliable and affordable supply of energy." ([32]:3).

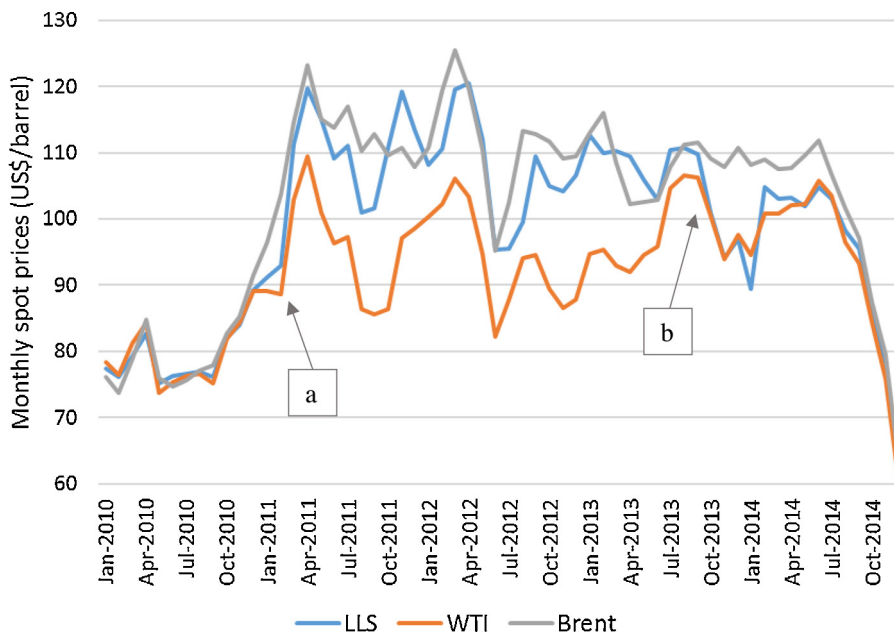


Fig. 2. What prevented exports, transportation bottlenecks or the export ban?

Notes: At point a, WTI falls compared to LLS reflecting transportation bottlenecks. At point b, LLS falls from Brent and converges with WTI, reflecting the export ban.

Source: Energy Information Administration.

ing certain exports to Canada (1985), exports from Alaska’s Cook Inlet (1985), limited exports of heavy California crude oil (1992), and exports from Alaska’s North Slope (1996). Even so, the core prohibition on crude oil exports remained intact for forty years [17].

### 3. The political economy of repealing the ban in 2015

We argue that the repeal of the ban was driven by the confluence of three interrelated factors: the spread in US and international crude prices, the emergence of a larger political constituency for the US oil industry, and globally falling oil prices. All of these ingredients were caused, in part, by the “shale revolution” and the rise of the US tight oil industry. Yet, the US oil boom, by itself, does not explain the decision to lift the ban; that requires a closer look at the policy process and the convergence of the three factors mentioned above.

#### 3.1. The Brent-WTI spread

First, oil companies had to have a compelling incentive to oppose the ban. They did not have one so long as the price of oil in the United States was more or less equal to the world price. Since the 1970s, there was more than enough domestic demand for US-produced oil because the country consumes far more than it produces (and imports the rest). As long as the US price was close to the world price, high or low, the US producers were quite content to sell their oil to Americans.

Starting in 2011, US prices began moving away from world prices (see Fig. 1). West Texas Intermediate (WTI) offers a reasonable indicator of US prices, whereas Brent Crude is a good benchmark for world prices; the difference between them is called the spread. WTI historically traded at a premium of about \$1–\$3 a barrel above Brent. After 2011, the WTI price was considerably lower than the Brent price, sometimes by as much as \$20 per barrel. The spread was primarily due to a glut of oil trapped in the US, linked to inadequate transport infrastructure (pipelines, rail transport, and barge traffic) to move the crude from production fields

and storage locations (including Cushing, Oklahoma) to refining centers, particularly the Gulf Coast [21–23].

The question can be raised whether it was, in fact, the transportation bottleneck in Cushing that was holding back US crude from reaching world markets, rather than the export ban. One way to separate the transportation bottleneck effects from the export ban effects is to compare the prices of WTI with those of Louisiana Light Sweet (LLS), a crude of similar quality produced offshore in the Gulf of Mexico, shown in Fig. 2. From 2011 onwards, landlocked WTI fell compared to coastal LLS, reflecting transportation bottlenecks (point a). However, by late 2013, the transportation bottleneck had been alleviated thanks to the reversing of existing oil pipelines originally running from Texas to Cushing, the opening of new pipelines to Texas refineries, and an increase in rail transport of oil [23]. As a result, LLS also fell with regard to Brent and came to track WTI more closely (point b). Here, the price differential between Brent and WTI could no longer be attributed to transportation bottlenecks. The remaining difference was due to regulatory barriers, in the form of the crude export ban.

The Brent-WTI spread meant that US oil producers were selling their oil for less than they could get on the world market, yet the export ban prevented access to the world market. The spread in 2015 was smaller than it had been in 2011–2013, but it still generated a significant financial incentive. Up until August 2015, the spread hovered in the \$5–8 per barrel range. Although small on a per-barrel basis, that meant a big loss in revenue for oil producers as a whole. With oil production running at about 9 million barrels per day, the price spread cost US oil producers roughly \$16–26 billion dollars annually in the aggregate. Even for an individual producer like Continental Resources that produced about 50 million barrels in 2015, the price spread meant lower revenues of \$250–400 million.

Not surprisingly, oil producers wanted the ban to go, but oil refineries benefitted from it. Because of the ban, US refineries were able to buy low-priced US crude oil, refine it, and then sell those products at (high) world market prices. As mentioned, all restrictions on refined product had been lifted since 1981. This meant that all rents from lower crude prices in the US accrued to the refiners,

**Table 1**  
Shifting positions of key interest groups in oil export ban debate, 2011–2015.

Key interest groups	2011–2014: high oil prices			2014–2015: low oil prices		
	Position	Motive	Preference intensity	Position	Motive	Preference intensity
<b>Oil producing companies</b>	Pro repeal	Foregone revenue	Medium: profits are high anyway	Pro repeal	Bring relief to an industry in crisis	High: this is no longer about maximizing revenues that are already high, but about averting crisis in the industry and saving jobs
<b>Refiners</b>	Against repeal	Profit from price differential	High: due to huge Brent-WTO spread	Against repeal	Profit from price differential	Medium: price gap is closing and international crude prices are also low
<b>Environmental groups</b>	Against repeal	Keep oil in the ground	Medium	Against repeal	Keep oil in the ground	Medium but the extension of tax credits for solar and wind eased some anxiety of environmental groups (Not applicable)
<b>Motorists</b>	Against repeal	Keep fuel prices in check	High: fuel prices are high	No clear position	Fuel prices are declining/low and thus less of an issue	
<b>Outcome</b>	<b>Ban upheld</b>			<b>Ban lifted</b>		

not US consumers [23]. US oil producers argued that the American refinery system was fitted to process heavy petroleum, not the light, sweet crude oil that represented the increase in domestic production [22]. Yet US refiners asserted that they could absorb growing production from US tight oil plays, provided that some additional investments in refining and infrastructure were made [21].

The result was a political contest that pit different parts of the oil industry against one another, each proposing a different policy solution: lifting restrictions on oil exports (producers) or investing in more refinery and transport capacity at home (refiners). The refineries had an unusual set of informal allies in their corner: environmentalists, who liked the ban because it discouraged oil production and its accompanying environmental hazards; and motorists, who feared that lifting the ban would raise gasoline prices at the pump [31]. The motorists' fear was largely unfounded. A study by the Energy Information Administration, for instance, found that petroleum product prices in the United States, including gasoline prices, would be either unchanged or slightly reduced by the removal of export restrictions on crude oil [24].

The concentrated benefits (for the oil industry) and costs (for the refiners) of lifting the ban, compared to the diffuse perceived costs for motorists and environmentalists, explains why it was more difficult for the latter groups to organize themselves politically [25]. That gave the oil industry a major lobbying advantage.

### 3.2. The US oil industry's growing constituency

The second key factor behind the repeal was the rise of the tight oil industry, associated with fracking and horizontal drilling, which strengthened the case of the oil companies. In the five years leading up to the repeal, tight oil became big business in states such as North Dakota and Texas [26]. It employed hundreds of thousands of people and was responsible for a significant portion of the job growth during Obama's presidency [2].

The oil industry used its growing economic clout to lobby for the repeal of the ban. The CEOs of major firms like Chevron and Conoco-Phillips publicly identified the repeal as a top priority, and repeatedly lobbied for it [27]. The oil industry was also a dominant funder at public policy think tanks that were, at the same time, espousing the same claims in favor of repealing the ban [28].

The oil industry's claim that ending the export ban would create jobs and boost profits proved highly effective. Republican Representative Joe Barton of Texas, Democratic Senator Heidi Heitkamp

of North Dakota, and Republican Senator Lisa Murkowski of Alaska led the fight against the export ban [2]. Not coincidentally, many jobs, votes, and campaign contributions are all directly tied to the oil industry in those states [29].

Even with a growing constituency in the tight oil industry, though, supporters of the ban put up stiff resistance to a policy change. Refineries formed lobby groups, such as Crude Coalition, and argued they were able to absorb any additional supplies, making it unnecessary to lift export restrictions to balance the market [21]. Environmentalists lobbied on the same side as the refineries, using an entirely different set of arguments. And in October 2015, the Obama administration even threatened to veto a House bill that would lift the federal ban on crude oil exports.

### 3.3. Falling crude prices

The third key factor was falling oil prices since mid-2014, bringing down oil producers' profits. The pain in the oil sector was intense. By the fall of 2015, the number of active oil rigs had fallen by more than half since mid-2014, and oil companies were cutting costs just to stay alive. The slump in oil prices had even given rise to so-called "zombie companies"—that is, oil and gas production companies with enough cash to service their debts, but not enough to drill any new wells to replace older ones [30]. They were desperate for additional earnings, and ending the export ban offered a way.

Low oil prices helped to repeal the ban in a second way, namely by easing consumers' anxiety about gasoline prices. Polling had shown that the vast majority of voters in both parties believed that ending the ban would have raised gasoline prices at the pump—a notion that many proponents sought to debunk [31]. This popular belief made many in Congress reluctant to lift the ban, fearing the political repercussions of any increase in gasoline prices. The politics of ending the ban were thus easier with low oil prices.

### 3.4. Putting the factors together

Prior to 2011, oil companies had no reason to end the ban even when oil prices fell; after 2011, oil companies had a profit motive for the repeal and gained power and voice. The Brent-WTI spreads were huge during the period 2011–2013, yet no policy shift occurred. In late 2015, the export ban was finally lifted even though WTI was no longer traded at a major discount compared to Brent. The spread had gradually closed since 2013 because of



increased transportation capacity. If the ban had been lifted earlier, large-scale US oil exports would have been impeded by the lack of transportation capacity [23]. Even so, the oil industry continued its campaign, because the price spread had not entirely disappeared and the industry feared that it could return. Moreover, by that time, the lobby campaign had a certain momentum of its own: various actors had already finished cost-benefit analyses of the export ban that suggested repeal and other people were on record calling for a repeal of the ban, etc.

The multiple streams model of the policy process perhaps best explains why policy shifted in 2015, rather than a few years earlier [4]. That model suggests that policy change only occurs when there is the combination of three streams. First, there has to be a *recognized policy problem*. For decades, the export ban was not perceived as a problem because there was no price incentive for US producers to prefer exports to domestic sales, and the domestic market was more than sufficient in size. That trend reversed in 2011, when US domestic and international oil prices began to diverge. Thus, oil companies advocated the repeal of the ban with the support of policy-makers from oil-rich states.

Second, a *feasible policy solution* must be available. Between 2011 and 2014, the oil industry's preferred solution to repeal the ban ran into objections from refiners and motorists (who liked the ban because it kept domestic crude prices in check) and from environmentalists (who saw the ban as a means to keep oil in the ground). But the opposition of the refiners and motorists weakened in 2014, in the former case because of convergence in the US and international crude prices, in the latter because of the fall in world oil prices since mid-2014. These low oil prices, at the same time, greatly increased the incentive for producers to lobby for a repeal. That made policy-makers more receptive to the demands for a repeal of the export ban.

Third, there needs to be a *set of policy-makers with the motive and opportunity to enact a policy change*. In 2015, a grand bargain to pass the government's budget provided a window of opportunity to finally lift the ban. Thanks to the lower oil prices, there was a general easing of consumer anxiety over gasoline prices, which eliminated an important motive for Congress to uphold the ban. In addition, the environmentalist groups were able to link the repeal of the ban with an extension of tax credits for wind and solar energy in the 2015 budget deal—a classic legislative bargain.

Table 1 schematically summarizes the shifting positions and preferences of key interest groups and the critical importance of crude oil prices. When oil prices were high, there was really only one group advocating the repeal of the ban (major oil producers) and, even then, the oil companies had relatively low motivation because the high oil prices generated huge profits for them. The opposing groups either had stronger preferences (e.g., refiners) or were electorally more salient (e.g., motorists). When oil prices fell, the oil companies began to pursue the lifting of the ban with more vigor because of the industry crisis; they also had the ear of politicians because low oil prices led to job losses in the sector. As noted earlier, low oil prices and spreads reduced opposition from motorists and refiners. The opposition from environmental groups was bought off with a package deal that included support for renewables.

#### 4. The implications of lifting the ban

Looking forward, what are the potential international implications of the repeal for oil markets, geopolitics and climate change? In 2015, the US was the world's largest oil producer [33], so it seems reasonable to expect the effects of the policy reversal to reverberate globally—but do they really? Economically, the EIA did not expect that lifting the ban would have much of an impact on US production

[24]. Even in its “high” scenario, the EIA estimated that US production would increase by a maximum of 220,000 barrels a day, on average, between 2016 and 2025, compared to leaving the export ban in place. Similarly, the EIA expected prices to remain largely unaffected because US refineries would still be able to absorb all the oil that the US produces.

Geopolitically, repealing the ban does not mean that the US is suddenly in a position to use its oil exports as a diplomatic tool, since oil is still traded on what is probably the “largest and most liquid commodity market on earth” [17]. The existence of such a globally integrated oil market also implies that the goal of “energy independence,” invoked by every US President since Nixon, is an empty slogan. Lifting the export ban does bring benefits for the US in other ways, though. First, it facilitates the role of the US tight oil industry in mitigating price volatility. The US tight oil industry has a much shorter investment cycle and is less capital intensive than other marginal crude sources, enabling it to react faster to changes in global prices [34]. And, second, it eliminates a long-standing tension in the American position on trade policy: the US oil export ban was incongruent with its position in favor of free trade in almost all other sectors.

Environmentally, any benefit created by the ban in terms of reducing greenhouse gas emissions was probably small [24], and in any case represented an inefficient way to restrict those emissions [17]. Still, environmentalists' objections ensured that the Congressional deal to repeal the ban was accompanied by an extension of tax credits for wind and solar energy. One analysis of the environmental benefits of the solar and wind tax credits suggests that they are relatively large, about 40 million metric tons of avoided carbon dioxide emissions annually, certainly larger than any benefits associated with leaving the export ban in place [35].

#### 5. Conclusion and policy implications

The Congressional action in 2015 to repeal the forty-year old ban on US crude oil exports represented a significant shift in policy. A year prior to the repeal, experts viewed the policy change as highly unlikely, based on persistent partisan gridlock in Congress [2]. Yet a combination of three factors created the right conditions for the ban to be lifted: the significant spread between US and world oil prices, a steep decline in oil prices, and a Congressional budget deal. In the end, repealing the ban was accomplished with remarkable speed.

While the decision to lift export restrictions on crude oil represents a historic change in US energy policy, the implications for oil markets, geopolitics, and climate change are likely to be modest. Both proponents and opponents have probably overplayed their case during the export ban debate, in an attempt to mobilize support for their respective cause. The deal represents neither a “disaster for the climate” [36] nor does it endow the US with a “powerful new foreign policy tool” [37].

What it does show is that, in spite of the rhetorical support for ‘energy independence’ by every US president since the 1970s, there is actually a huge degree of ‘interdependence’ between the domestic and international spheres. The US fracking boom has helped to bring down global oil prices since 2014. This, in turn, has helped to shift the domestic debate within the US over the repeal of the export ban in favor of the oil companies. With WTI and Brent prices now closely aligned again, the US fracking industry might help to mitigate the price volatility that has plagued the oil industry for so long. Energy policy choices in the US are thus heavily conditioned by global market circumstances, which in turn are molded by national political processes in the major oil producers and consumers.

More broadly, this case offers lessons for the political economy of energy policy choices of import dependent countries beyond

just the United States. The political dynamics of the export ban and its repeal suggests that the energy policies of importing countries cannot be simply assumed from their macroeconomic situation, treating the state as a unitary rational actor. Instead, policy outcomes are the product of various competing interest groups' preferences, understood within the context of a multiple streams model of public policy.

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