



RESEARCH HIGHLIGHTS

Impacts of the Jones Act on U.S. Petroleum Markets

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Does U.S. shipping policy lead to higher petroleum prices?

Context

The Jones Act of 1920 requires that goods shipped from one U.S. port to another be carried by vessels that are U.S. built, owned and crewed. Past analyses have shown that these restrictions increase the cost of domestic shipping relative to the cost of sending goods over an equivalent distance internationally. One market that is potentially affected by these restrictions is the petroleum market, in which much of the United States' oil and refined products are produced in Texas and along the Gulf of Mexico coast, far from the urban demand centers on the U.S. East Coast. While these fuels could potentially be shipped from the Gulf to East Coast ports, the East Coast instead imports much of its fuel from across the Atlantic, even as the Gulf Coast exports large volumes of the same fuels to destinations as far away as Asia. A leading explanation for this pattern is that it costs as much as three times more to ship that fuel from the Gulf to the East Coast because of Jones Act requirements. Advocates of repealing the Jones Act therefore argue that it distorts oil and refined markets, leading to higher prices for East Coast consumers, lower prices for Gulf Coast producers, or both. This paper quantifies how abolishing the Jones Act would impact U.S. oil markets in the short-run.

Research Design

The authors collected data on U.S. Gulf Coast and East Coast fuel prices, movements and consumption, and estimate domestic non-Jones shipping costs using freight rates for Gulf Coast exports. They studied the years 2018 and 2019, before the Covid-19 pandemic caused large reductions in U.S. oil production and consumption and before Russia's invasion in Ukraine that delivered an unprecedented shock to global hydrocarbon markets and the international tanker

fleet. They then modeled counterfactual prices and product movements absent the Jones Act, allowing shippers to arbitrage price differences between the Gulf and East Coasts when they exceed transport costs. The authors focused on the three refined products that have the largest volumes of both U.S. Gulf Coast exports and East Coast consumption: conventional gasoline, jet fuel and ultra-low sulfur diesel. For crude oil, they restricted their analysis to light crude oil, since this is the grade of crude that constitutes the majority of Gulf Coast oil exports.

Findings

If the Jones Act's restrictions were lifted, more Gulf Coast oil products would be shipped to the East Coast. The authors found that abolishing the Jones Act would increase the amount of Gulf Coast oil products sent to the East Coast from 253 million barrels per year to 371 million barrels per year. Movements of jet fuel and ultra-low sulfur diesel from the Gulf would nearly completely replace imports to the East Coast— eliminating 96 percent and 97 percent of imports, respectively. Gulf exports of conventional gasoline would be large enough to fully displace imports into the Lower Atlantic, but typically not to the Central Atlantic and New England. Overall, eliminating the Jones Act would reduce the East Coast's gasoline imports by 36 percent. Light crude oil from the Gulf would not outcompete foreign imports into the East Coast most of the time, even absent the Jones Act. But in months when Gulf light crude would outcompete foreign imports, the amount of light crude exported would be large enough to completely eliminate East Coast light crude imports. Overall, eliminating the Jones Act would reduce the East Coast's light crude imports by 36 percent.

With more oil products coming from the Gulf, East Coast consumers would save money. Gulf Coast customers would pay slightly more. East Coast consumers would save money on oil products coming from the Gulf. The prices of gasoline, jet fuel, ultra-low sulfur diesel and light crude oil on average would drop by \$0.63, \$0.80, \$0.82 and \$0.36 per barrel, respectively, for consumers throughout the East Coast. Consumers in the Southeast would see the largest price drops because of the short distance the products would need to travel, with prices for conventional gasoline, jet fuel and ultra-low sulfur diesel decreasing by \$0.76, \$1.60, and \$1.12 per barrel, respectively. Consumers in New England would see the smallest savings, given the larger distance the products would need to travel. Meanwhile, gasoline prices in the Gulf would increase on average by \$0.30 per barrel. This is because in some months all of the Gulf's gasoline exports would be re-routed to the East Coast,

“Our study shows that the Jones Act hurts consumers, benefits producers, and leads to inefficiencies within the oil market. Understanding who would win and who would lose if the Jones Act were repealed sheds some light on why this policy still exists.”

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so the Gulf's price would increase to meet the East Coast price (minus the movement cost).

Lifting the Jones Act restrictions would improve the efficiency of the U.S. oil market by \$403 million per year. Consumers would overall benefit, while producers would lose out. Because abolishing the Jones Act would cause the East Coast to pay less per barrel of fuel they consume, their consumer surplus would increase by \$896 million per year. Most of these gains would accrue to consumers in the Lower Atlantic—whose consumer surplus would increase by \$680 million per year—because this region experiences the largest product price decreases. \$94 million per year of the consumer surplus increase would accrue to Central Atlantic refiners in their role as crude oil consumers. Gulf Coast consumers would, however, experience a decrease in consumer surplus of \$127 million per year, primarily

reflecting an increase in Gulf gasoline prices. Taken together, the total change in consumer surplus from abolishing the Jones Act would then be \$769 million per year.

On the other hand, East Coast suppliers' producer surplus would fall by \$573 million per year due to lower East Coast prices. This decrease would be partially offset by an increase in Gulf Coast producer surplus of \$205 million per year, so that overall producer surplus would decrease by \$367 million per year. Total consumer plus producer surplus would increase by \$403 million per year, reflecting the efficiency gain from reduced petroleum transportation costs.

CLOSING TAKE-AWAY

Understanding who would win or lose from the elimination of the Jones Act—and by how much—makes clearer the politics surrounding its repeal. Because oil and refined product suppliers' profits would decline with the elimination of the Jones Act, they have few incentives to advocate for its repeal. Meanwhile, East Coast consumers would experience lower prices and an increase in consumer surplus that is large in aggregate but only a few dollars per year per person—making it difficult to mobilize for policy change.

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