

U.S. Crude Oil Exports to International Destinations

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On December 18, 2015, Congress passed [H.R. 2029](#)—the Consolidated Appropriations Act, 2016—which was signed into law as [P.L. 114-113](#). A provision contained in [P.L. 114-113](#) repealed a 40-year prohibition, with [exceptions](#), on the export of crude oil produced in the United States. Removing this prohibition and its associated restrictions provides producers, shippers, and traders with options to market and sell crude oil internationally. Prior to the removal of export restrictions, exceptions resulted in approximately 500,000 barrels per day of crude oil exports—nearly all to Canada—during 2015. Since the export prohibition was repealed, industry trade data indicate that crude oil has been exported to destinations that were previously not allowed. Monthly export volumes to these international markets have fluctuated but reached their highest levels in September 2016.

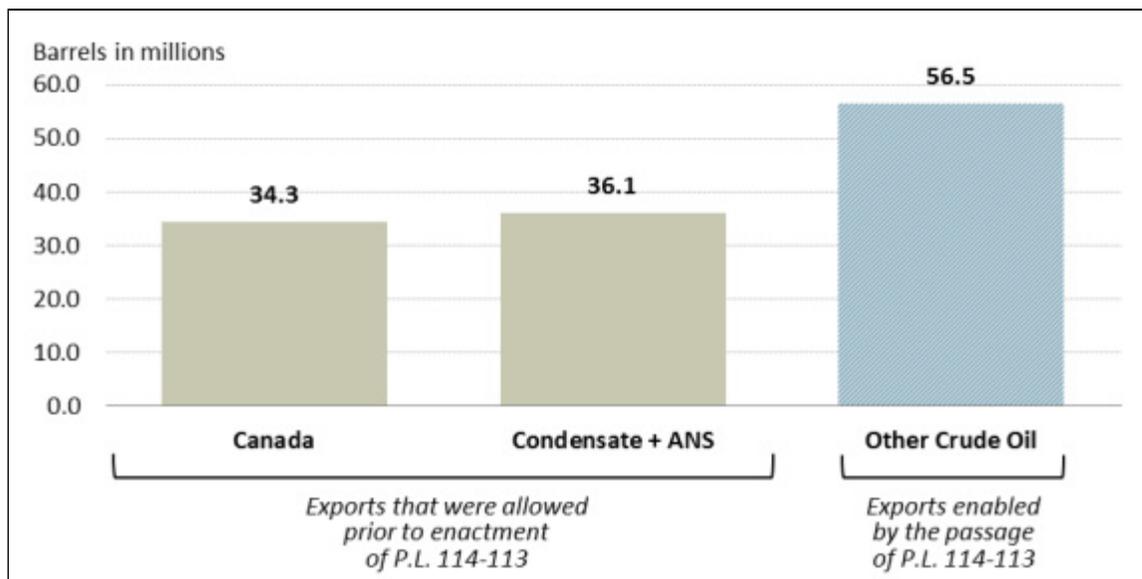
U.S. Crude Oil Export Volumes

[Energy Information Administration \(EIA\) monthly data](#) show that from December 2015 to October 2016, crude oil export volumes ranged from 364,000 barrels per day (bpd) to 692,000 bpd. While export volumes in some months of 2016 were higher than in 2015, a dramatic increase in crude exports post [P.L. 114-113](#) enactment has not been observed. One possible reason for the limited export volume increase is [narrow price differentials](#) between domestic and international crude oils which reduces the attractiveness of export markets.

According to industry data consultancy [ClipperData](#), waterborne exports—not including modes such as pipeline, rail, or truck—of U.S. crude oil and condensate from December 19, 2015, through September 30, 2016, totaled approximately 127 million barrels or approximately 335,000 bpd. The majority of those barrels (approximately 56%) were eligible for export prior to enactment of [P.L. 114-113](#) and would likely have been exported had the restrictions remained in effect. For example, exports to Canada and exports of processed condensate and Alaska North Slope (ANS) crude were allowed within the previous crude oil export regulatory framework. Other crude oil exports outside of these categories represent non-condensate crude oil exports that have been enabled by the prohibition repeal ([Figure 1](#)).

Figure 1. U.S. Waterborne Crude Oil Exports

December 19, 2015–December 31, 2016

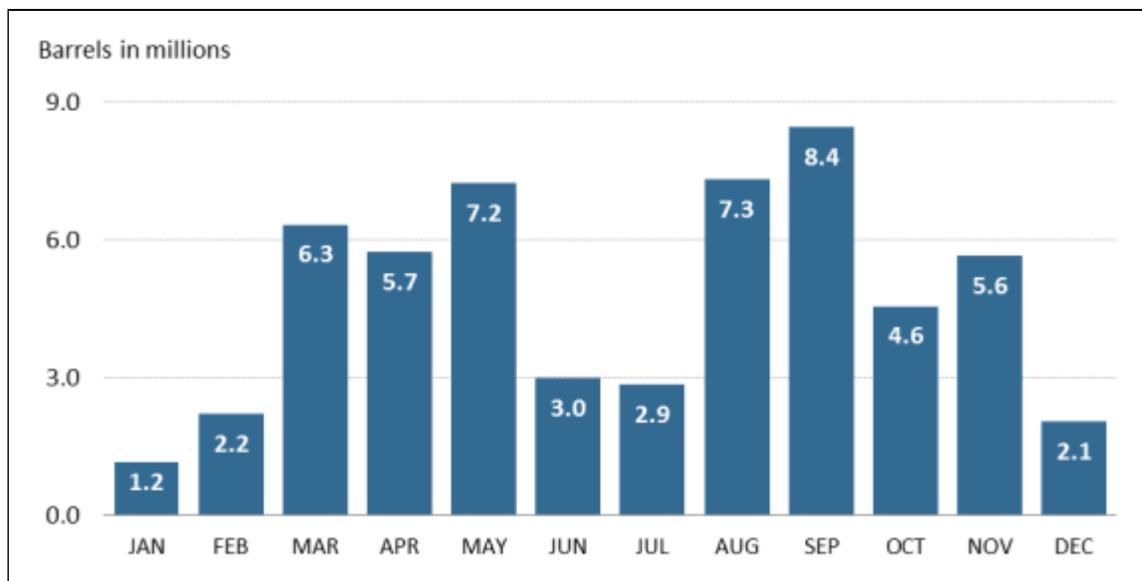


Source: CRS, with data from ClipperData. ANS = Alaska North Slope.

According to ClipperData, 56.5 million barrels of non-condensate crude oil (approximately 149,000 bpd) have been exported to destinations that were prohibited prior to enactment of [P.L. 114-113](#). This export volume is within the 0 to 2 million bpd range estimated by EIA in a September 2015 [study](#) that projected the effects of removing export restrictions. Export volumes to date have been on the lower end of the range, which can generally be explained by two factors. First, the financial attractiveness of exporting U.S. crude oil has been limited by the relatively narrow price differential between domestic and international benchmark prices. However, benchmark price differentials are not the only condition that might motivate exports. Regional price discounts and low-cost shipping opportunities could result in conditions that support crude oil exports. Second, global refiners may still be getting experience with acquiring and processing U.S. crude oil, and it may take some time for global refiners to integrate U.S. crude oil into their feedstock mix. However, monthly export data has fluctuated. Non-condensate, non-Canada, non-ANS crude oil export volumes increased from 1.2 million barrels in January 2016 to 7.2 million barrels in May, fell sharply in early summer, and reached 8.4 million barrels in September ([Figure 2](#)).

Figure 2. Non-Condensate U.S. Crude Oil Exports (Excluding Canada and ANS)

January–December 2016



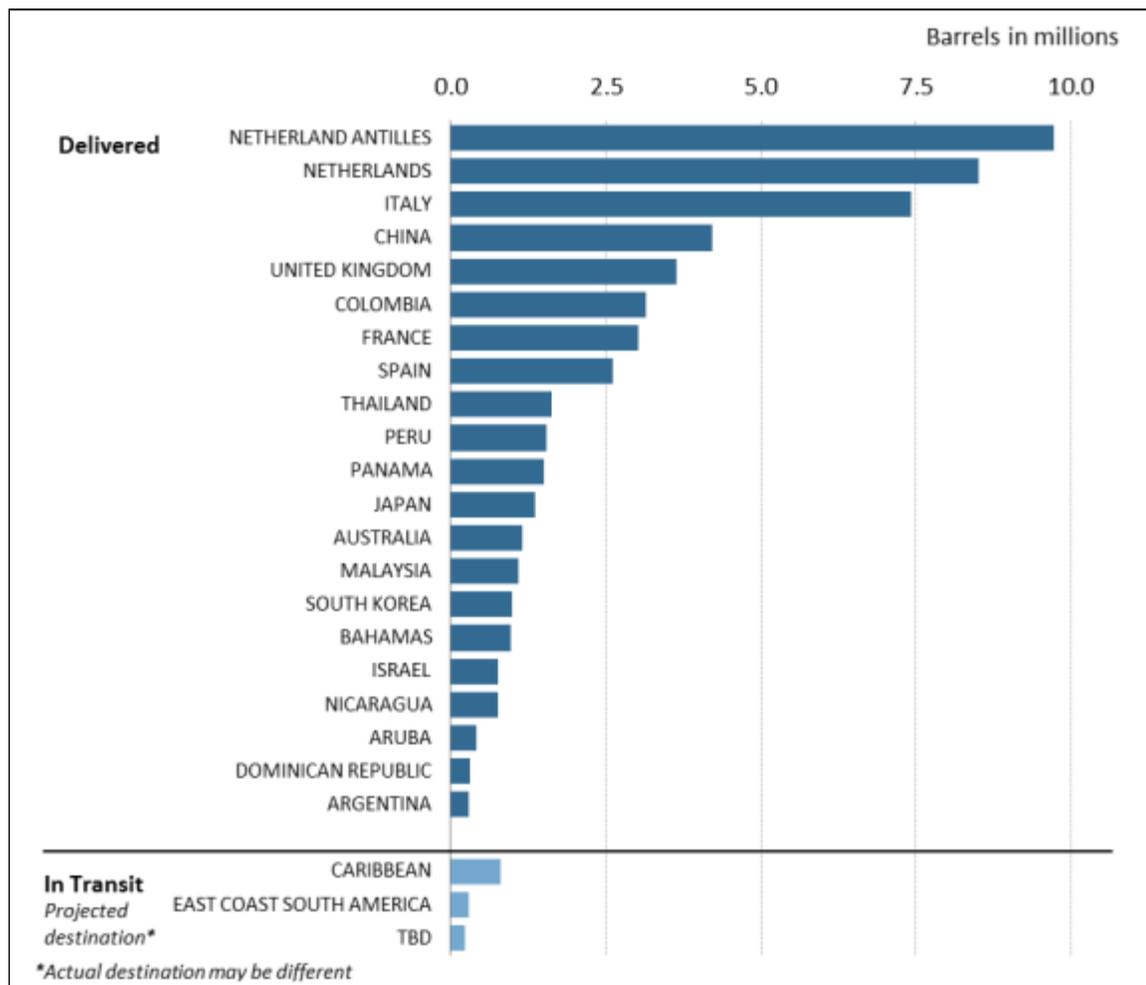
Source: CRS with data from ClipperData. ANS = Alaska North Slope.

Export Destinations

Through December 31, 2016, 56.4 million barrels of non-condensate crude oil—including approximately 10 crude oil grades such as Eagle Ford, West Texas Intermediate, and Gulf Coast sour blend—have been delivered (98%) or were in transit (2%) to 21 countries that were previously prohibited. As shown in [Figure 3](#), regional destinations for U.S. crude oil include Europe, Asia, the Mediterranean, and the Caribbean.

Figure 3. Non-Condensate U.S. Crude Oil Destinations (Excluding Canada and ANS)

January–December 2016



Source: CRS with data from ClipperData. ANS = Alaska North Slope

Notes: Projected destinations are subject to change due to transactions that can occur during transit.

Policy Considerations

During the congressional debate about removing crude oil export restrictions, several policy issues were considered, such as price impacts and production volumes. Regarding price impacts, there was concern that gasoline prices for U.S.

consumers could potentially rise if crude oil exports were allowed. However, assessing such a relationship is difficult due to the limited amount of time that exports have been unrestricted in addition to the multiple variables (e.g., inventories) that influence gasoline prices. [EIA price data](#) indicate that during the week prior to enactment of [P.L. 114-113](#), retail gasoline was priced at \$2.14 per gallon. Prices declined to \$1.83 per gallon in mid-February 2016 and have since risen to \$2.42 per gallon for the week ending December 26, 2016. Additionally, there was concern expressed about increasing production volumes and the potential for associated environmental impacts that might result from allowing crude oil exports. However, [EIA data](#) indicate that U.S. crude oil production has declined since December 2015. This dynamic could potentially change in the future should crude oil prices and production profitability increase, production levels rise, and/or regional oversupply of certain crude oil types start to occur. Oversupply conditions generally result in price differentials, which could create economic incentives to export and thus motivate additional production activity.

[P.L. 114-113](#) includes a provision that allows the President to impose export restrictions should it be determined that crude oil exports result in domestic oil prices above global prices and adverse employment effects. While current data do not suggest any negative economic, gasoline price, or employment effects resulting from the export prohibition repeal, unrestricted U.S. crude oil exports have only been allowed for a short period. It may take some time for such relationships, if any, to be evident.