

U.S. Crude Exports

02 January 2016



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Panamax THEO T leaves Corpus Christi with first US crude export cargo after export ban repeal

Repeal of US crude export ban resolves quality imbalances

Crude export debate pitted refiners vs. producers

- Refiners enjoyed cheap feedstock stranded by lack of export options
- Producers suffered from substantial price discounts to seaborne market

Infrastructure development reduced discounts partially

- Crude-by-rail allowed Bakken crude to reach both US coasts and USG
- Pipeline construction allowed crudes to reach seaborne markets in USG
- Crude price discounts in interior of US narrowed to international benchmarks

Still, refiners struggled with quality issues from crudes

- Rapid growth of super light crudes and condensate was overwhelming USG (PADD3) refiners' ability to process it in plants configured for heavy crude
- "Crude Wall" concerns of additional light crude intake causing run cuts

Export ban repeal resolves quality issues that remained

- Light crude & condensate exports remove unwanted feedstock for refiners
- PADD3 refiners can now optimise slate for refinery configuration
- New splitters also remove excess condensate, despite weaker economics

OPEC & crude price spreads limit near-term exports

- Rig count collapse in Eagle Ford & Permian Basin from OPEC pricing strategy will bring sharp drop in output during 2016, limiting supply for export
- Narrowing/reversal of Brent spreads to LLS & WTI removes export incentive

Ultimately, recovery in LTO output boosts exports

- Ultimate rebalancing of crude market should provide price signals that drive recovery in rig counts & LTO output, subject to capital availability
- Stable demand & return of quality issues should provide surplus for export



With exports allowed, PADD3 crude market finds quality balance

Under crude export ban, “crude wall” was looming

- Stranded condensate drove lightness of crude slate, and pushed distillation columns to hydraulic limits for handling light ends
- “Crude Wall” concerns of maximum light crude intake without run cuts

BIS rulings on “processed condensate” eased pressure

- BIS rulings in 2014 allowed exports of “lightly-processed” condensate from larger field separators, if parcels remained segregated
- Accommodated rise in these condensate exports to 120 kbpd by 2q15

Plans for condensate splitters also offered outlet

- Stranded pricing of condensate supported economics of splitters on USG
- Traders & midstream players planned 720 kbpd of splitter capacity
- With export ban repeal, only 350 kbpd of added capacity now likely

Export ban repeal now offers chance to balance feedstock

- Exports now act as balancing outlet to keep crude intake gravities in check
- Crude/condensate pricing should achieve equilibrium that balances value to PADD3 refiners and netback values for global demand

Exports would now allow refiners to optimise slate

- Crude/condensate exports would remove an unwanted feedstock
- Keeps Latin American and AG imports above structural minimum levels

Producers receive higher prices, subject to demand

- Removes deep discounts for stranded condensate, that started push for export law changes from producers
- Pricing still limited by global export demand for crude/condensate



Conclusions

- US Congress finished what BIS started -- new export regime should resolve crude quality issues for PADD3 refiners, while offering producers better pricing environment
- Muted near-term outlook for exports:
 - Collapse in rig counts leads to lower production and cargo availability
 - New condensate splitter capacity on USG also absorbs supply
 - Narrower/negative Brent-LLS and Brent-WTI spreads discourage exports
- Stable LTO rig counts in 1h16 should provide 1 mbpd yoy decline in production required to provide global rebalancing, given rig productivity & well decline rate trends
- Oil E&P under-investment in 2015-16 and lower OPEC spare capacity should tighten oil markets significantly by 2019, leading to higher LTO rig counts & output
- Rebounding LTO production and stable internal demand should increase export availability
- Exports act a key variable in optimizing PADD3 crude slate
- Europe should emerge as leading destination for US crude & condensate exports, given lightness of regional crude slate and declining North Sea production

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