

December 17, 2019

North America's Long-Term Steam Cracker Margin Outlook

Stratas Advisors

This report and more are available to subscribers of our [Global Petrochemicals Service](#). Not a subscriber? [Create an account](#).

North America's annual steam cracker margin is 365 USD/MT (2019), which was 241 USD/MT (2018), and will be 177 USD/MT (2020). The decreasing trend will reverse in 2021 and growth will continue through 2025 as the ethylene-ethane spread widens and the share of ethane expands in the feedstock, replacing naphtha.

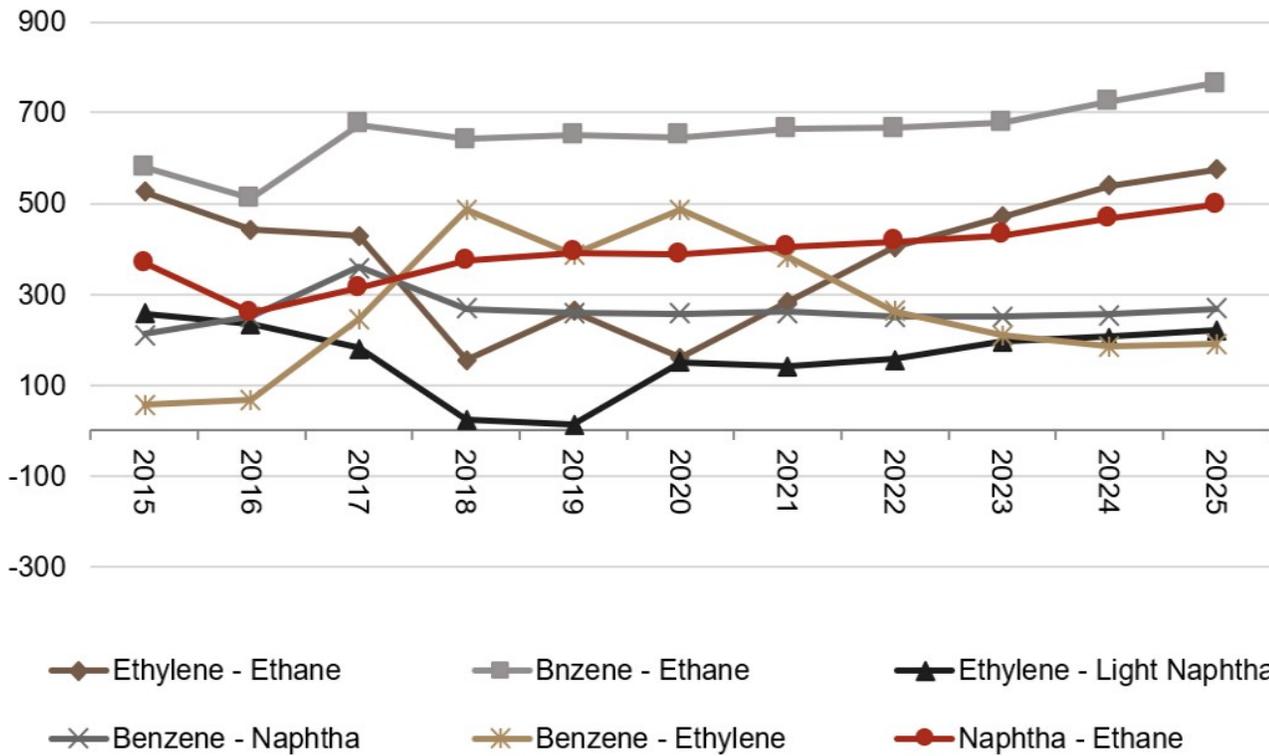
- Gas feedstock-based steam crackers (ethane, propane, butane): Gas-based steam cracker margins are 400 USD/MT (2019), which will increase to 657 USD/MT (2025). This is due to the widening ethylene-ethane spread, which increases from 262 USD/MT (2019) to 573 USD/MT (2025).
- Liquid feedstock-based steam crackers (naphtha, gasoil): Liquid-based steam cracker margins are 193 USD/MT (2019), which will increase to 248 USD/MT (2025). Due to increasing naphtha prices, margins will be less than gas-based crackers. Naphtha-ethane price differentials will increase from 390 USD/MT (2019) to 497 USD/MT (2025).
- Mixed feedstock-based steam crackers (combination of liquid, gas): Mixed-feed steam crackers margins are 318 USD/MT (2019), which will increase to 479 USD/MT (2025). This increase is due to the widening ethylene-ethane spread, which increases from 262 USD/MT (2019) to 573 USD/MT (2025). However, margins are less than gas-based crackers due to the high costs of liquid feedstock.

Primary differentials influencing steam cracker margins are as follows:

- Ethylene - Naphtha spread (13 USD/MT (2019) increasing trend, positively effects liquid crackers).
- Ethylene - Ethane spread (262 USD/MT (2019) increasing trend, positively effects gas crackers).
- Naphtha - Ethane differential (390 USD/MT (2019), increasing trend, negatively effects liquid crackers as naphtha prices are increasing more compared to ethane).
- Benzene - Ethylene differential (387 USD/MT (2019) increasing trend, positively effects liquid crackers as higher yields of aromatics are achievable with liquid feedstock)

North America feedstock and Product Price Differentials

Units | USD/MT



Note: USGC prices

Source: Stratas Advisors