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Strategies for a changing refining outlook

ERTC

November 2020

Trends driving the downstream outlook



Product demand



Crude quality



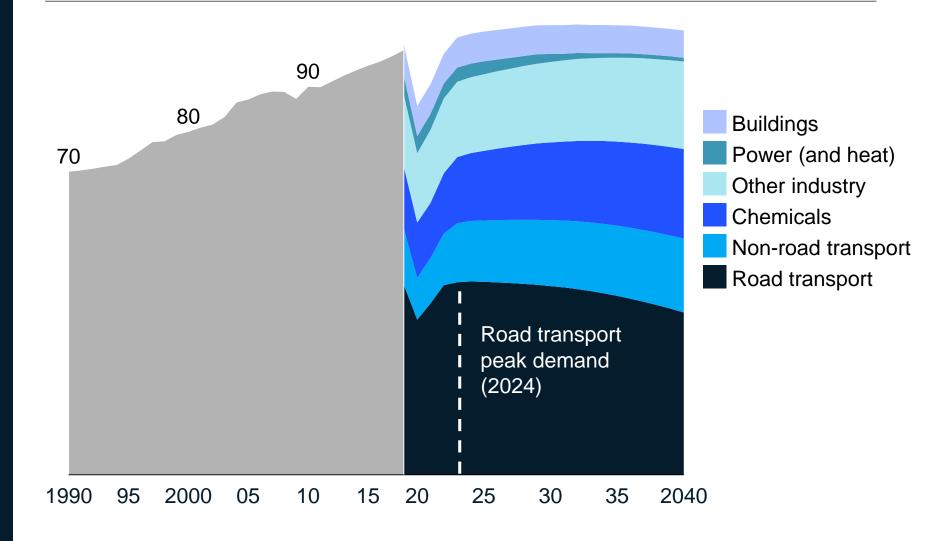
Refining investment

Global liquids demand by sector

Million barrels/day



Global demand peaks in the early 2030s

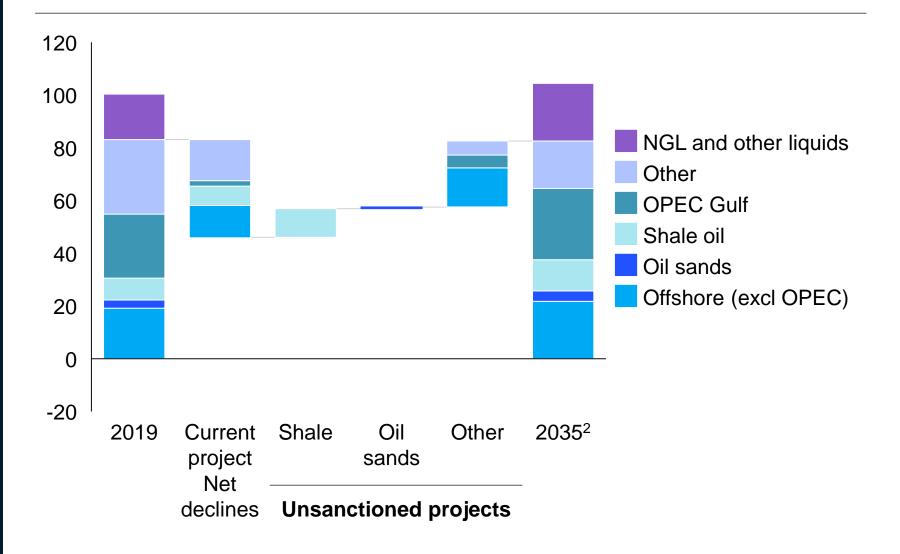


Global liquids supply growth, 2019 to 2035

Million barrels/day



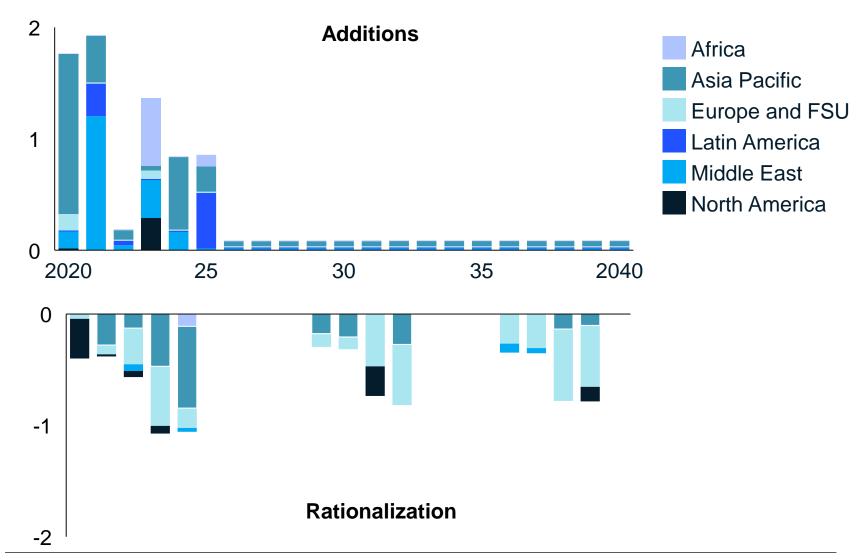
Changing crude quality





Refining headed towards structural oversupply

Distillation capacity by region, annual change Million barrels/day



Implications for industry economics



Refining utilization



Market margins



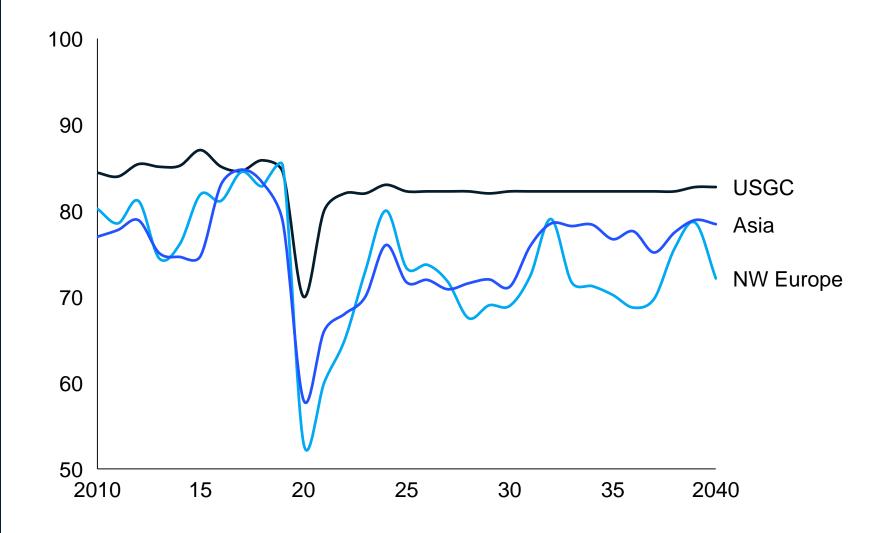
Industry profitability

Regional refining hub utilization

% of stream day capacity



Refinery utilization will cycle with falling demand and waves of rationalization

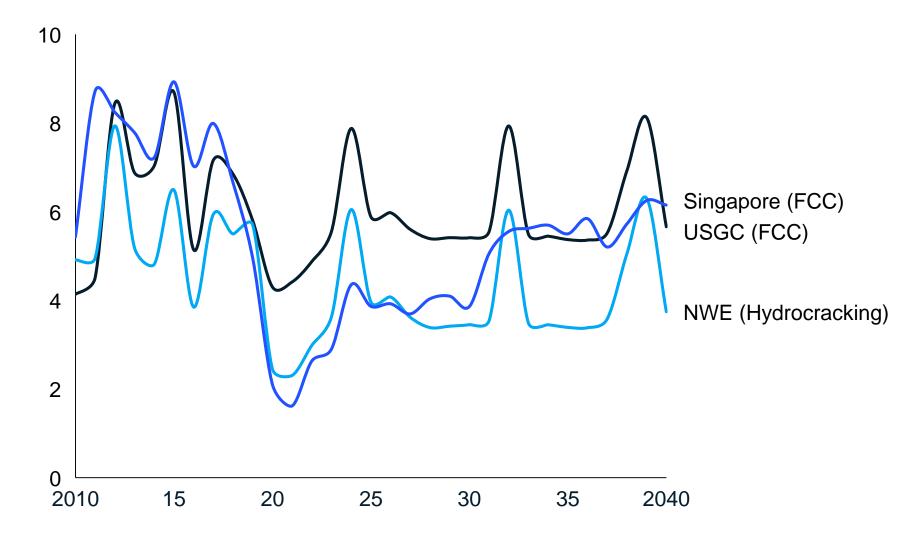


Hub market refining margins

USD/barrel – variable cash



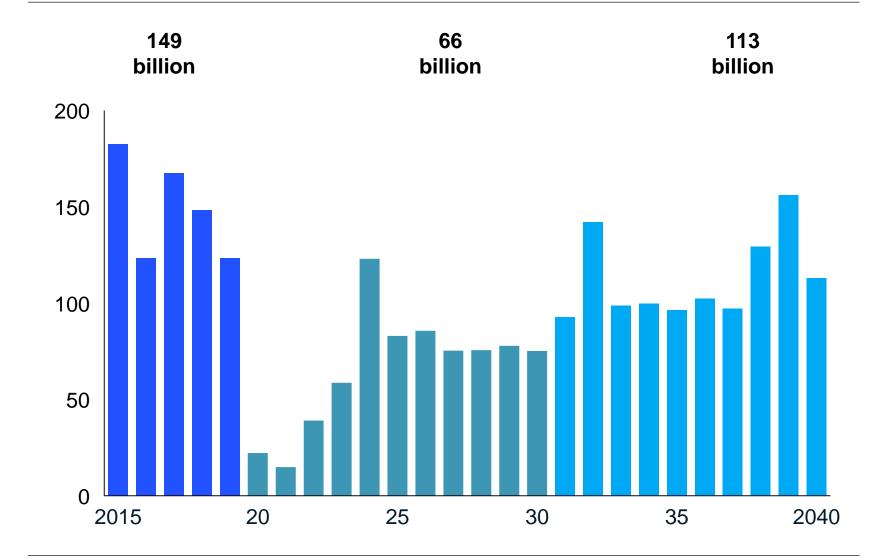
Refining margins will average below historical levels



Global refining value pool (EBITDA equivalent) USD billion



Industry value pools will be lower than in the past



Five archetypes for successful players





Regional champion

Focus on one geography

Develop largest possible footprint

Become a **regional 'market master'** by understanding the winning fundamentals of that region

Selectively leverage **adjacent businesses** (eg petrochemicals, marketing, renewables)



Global hub master

Focus portfolio on hub markets around the world

Leverage advantages of scale, complexity and petchem integration provided in hub markets

Use as platform for asset backed trading business



Upstream- integrated

Maximize **upstream synergy value** with the downstream

- Avoid market inefficiencies in crude pricing
- Provide stable crude diet for refinery to invest around



Cycle chaser

Capture value that is created by **acquiring assets** at low prices at bottom of the cycle

Run very cheaply, with a focus on short-term opex minimization

Be ready to **sell at high prices** during the peak of the cycle



Niche specialist

Capture value from **structurally advantaged micro-markets**

- Isolated geographies with product premiums and crude discounts
- Specialty products with less commoditized market dynamics
- Asset backed trading leveraging natural short and longs of a refining position

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Thank you