



Refinery Cost & Margin Analytics

Key Questions

- How can I benchmark performance of the refining industry over time?
- What is the position of our refineries versus our competitors or acquisition targets?
- How can I identify weak performing refineries that are at-risk of rationalization?
- What is the relative competitiveness and viability of a new refinery investment, based on a specific region or refinery configuration?
- How have companies performed historically and how will they perform in the future?

Understanding the competitive positioning of global operating refineries requires detailed and complex calculations combined with an extensive foundation of knowledge and insight. Companies can spend an inordinate amount of time collecting data and analyzing macroeconomic trends, cost drivers and supply/demand from disparate sources in order to assess their competitiveness and optimize profitability.

Utilizing our refining knowledge base, comprehensive refinery database, and price forecasts, IHS Markit models the competitiveness of >525+ global operating refineries.

Refinery Cost and Margin Analytics combines robust underlying data with visualization and analytical tools to provide an intuitive way to benchmark the competitive landscape of the global refining industry, at an asset level, with a forecast of their performance. Armed with our refinery benchmarking, companies can evaluate refinery performance, determine rationalization potential, and assess potential refinery acquisitions.

Key Features

- >90% of global refinery capacity
- IHSM forecast scenario embedded into model
- **Profitability metrics:** Cash cost to produce light products (CCLP) and net/gross margin estimates, identified by refinery
- **Operational metrics:** Refinery level yields, detailed refinery throughput, refinery crude slate
- Functionality to generate estimated economics for hypothetical refineries User-input crude & product price scenarios to efficiently understand refinery performance across different market environments
- **Annual cost/margin curves:** 5 years history & 10 years forecast
- **Quarterly cost/margin curves:** 8 quarters history & 8 quarters forecast

A 12-month subscription provides four model updates, which occur on a quarterly basis, aligned to our proprietary long-term price forecasts and S/D balances, as part of our Annual Strategic Workbook. Our integrated approach offers you the opportunity to respond as the market shifts, and ensures your strategic and operational decisions utilize the most current and robust data available.

How do our clients use the Refinery Cost & Margin Analytics service?

Refinery Benchmarking

- Benchmark your refinery performance against the competition
- Review cost & margin estimates for competing assets
- Identify fluctuations in competitive positioning resulting from shifts in energy and market conditions

Portfolio Improvement

- Understand risk and exposure to market volatility including upcoming regulatory changes
- Determine impact of new projects and capacity additions
- Evaluate profitability of existing refineries to identify M&A targets

Capital Investment Evaluation

- Calculate CCLP and gross/net margins of new capital investments
- Understand market position of new refinery relative to existing refineries
- Conduct scenario and sensitivity analysis to validate expected refinery performance

Using an interactive, data-rich Excel model that calculates production costs and margin estimates by refinery, company or region, you can:

1. Evaluate Long-Term Competitiveness of a Refinery

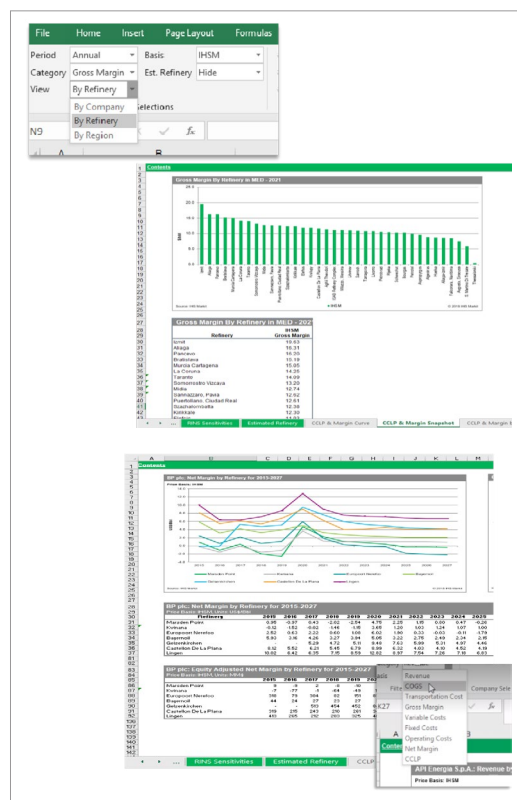
Whether assessing the position of an existing operating refinery or determining the viability of a new investment, Refinery Cost and Margin Analytics provides the full functionality required to effectively perform longer-term strategic analysis and benchmark the competitive position of refineries. Users can select to view different regions, refineries, and companies for a complete analysis. Refinery output and profitability comparison metrics includes gross margin, net margin, operating cost, cash cost to produce light products, landed crude costs, product value, refinery level yields and logistics costs.

- Understand impact of market fluctuations over the next 10 years
- Leverage the “adjuster” model to generate user-defined crude and product pricing scenarios to identify exposure
- Input hypothetical refineries with user customized crude type, capacity, utilization, operating costs and yields to fully assess the competitive position relative to existing operating refineries.

2. Calculate Impact of Market Changes on Cost and Margin Performance

With production costs and gross/net margins on a quarterly and annual basis, you can evaluate and compare refinery performance in the near-term, long-term, as well as review historical refinery performance. The curves include expected capacity additions in line with our supply/demand balances, as well as industry rationalization.

- Shift from annual to quarterly curves to understand impact of near-term market volatility, regulatory changes, or refinery reationalization
- Alter crude oil and refined product prices to anticipate the effect of a volatile market
- Compare multiple time-periods to understand the longevity of a market change and assess impact of capacity additions



Benchmarking Metrics

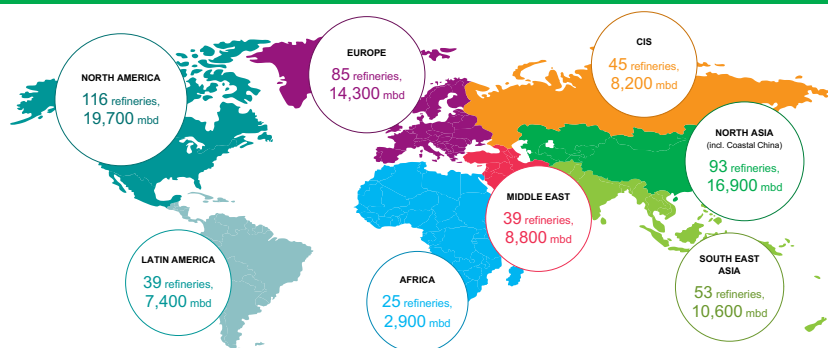
Refinery Output

- Refinery level yields
- Operating Costs
- Logistics costs

Refinery Profitability

- Gross margin
- Net margin
- Cash cost to produce light products (CCLP)

Coverage of All Key Regions



For more information www.ihsmarkit.com

CUSTOMER CARE

NORTH AND SOUTH AMERICA

T +1 800 447 2273
+1 303 858 6187 (Outside US/Canada)

EUROPE, MIDDLE EAST AND AFRICA

T +44 1344 328 300

ASIA PACIFIC

T +604 291 3600

E CustomerCare@ihsmarkit.com

About IHS Markit

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