



CHEMSYSTEMS

SBA PROGRAM

Report Abstract

Methanol Strategic Business Analysis

September 2008

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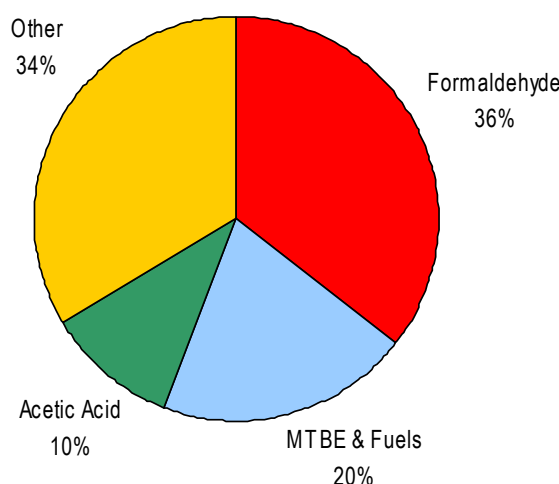


The methanol landscape has altered dramatically in the last decade as significant restructuring and price volatility have rocked the industry. Despite this upheaval and uncertainty, growth has continued apace. By the end of 2007, global capacity increased 41 percent over the 2000 total.

A key driver of this frenetic activity has been the cost of feedstock. High gas costs in the traditional production centres of North America and Western Europe have put producers in these regions under severe pressure. In response, major developments in methanol capacities are being made in the regions with access to low cost natural gas. These regions usually have relatively low local market demand for natural gas. Access to low cost gas and technology allow the construction of plants with very large capacities (5 000 tons per day or more) compared with existing capacities (around 2 000 – 3 000 tons per day). Such large plants can take advantage of economies of scale and produce low cost methanol. The recent surge in capital costs, though, is impacting the methanol industry significantly.

Methanol is a key chemical intermediate and its major derivatives are formaldehyde, methyl tertiary butyl ether (MTBE) and fuels, and acetic acid.

Methanol Demand by End Use
(2007)



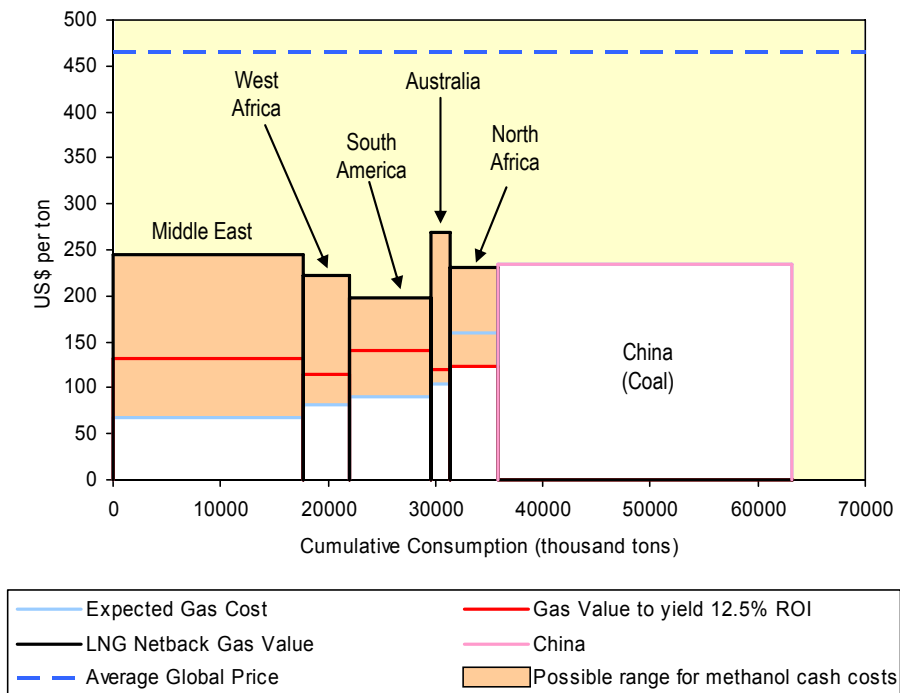
The methanol market is in a state of change with some derivatives declining, such as MTBE, whilst some are increasing strongly such as biodiesel. The new large-scale methanol plants and high energy costs have created opportunities for emerging applications, like gasoline blending, DME, Methanol-to-Olefins, Methanol-to-Propylene and fuel cells. Demand potential into these new outlets will be highly dependent on the cost competitiveness of methanol against traditional alternatives such as LPG. This in turn will be determined by future developments in feedstock prices and the structure of the methanol production base.

These are dynamic and exciting times for the methanol industry that bring with them a wealth of opportunities for existing and prospective players in the methanol market. To succeed in capitalizing on these opportunities, it is crucial to understand the drivers and mechanisms that are shaping the changes in this industry. In particular, the previous global price-setting mechanism is breaking down and a new paradigm pricing mechanism is emerging.

The recent surge in LNG projects, driven by strong demand for gas in the major economies and a prolonged period of high crude oil costs leading to high natural gas costs in the major markets, is leading to a shift in the methanol industry. As more LNG is developed, more infrastructure is put in place, leading to the improved connection of producing regions and markets. The increasing amounts of LNG used to supply natural gas demand in the major markets means that the so-called “stranded-gas” regions are no longer stranded for large reserves (above 3-4 tcf), unless land-locked. Thus the value of the gas in locations such as the Middle East could be represented by the LNG netbacks afforded to competitively supply the major gas markets. Methanol producers then, will have to compete with profitable gas monetization options such as LNG.

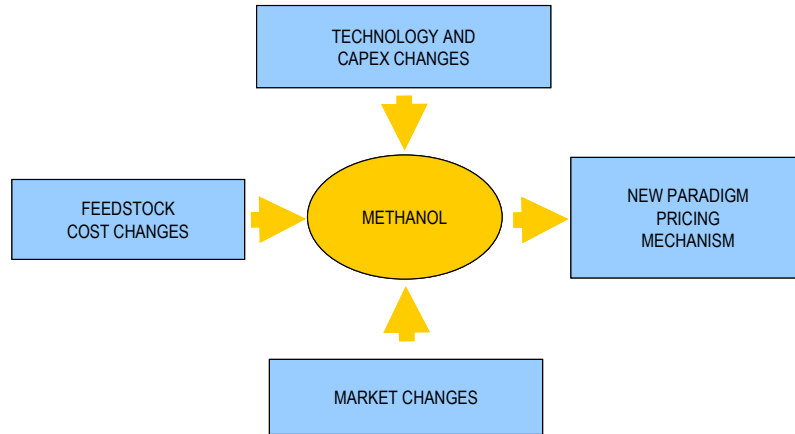
There is clear upward pressure on natural gas prices around the world even in locations where prices have historically been “fixed” as the high crude oil environment generates much higher returns to such gas-based projects. It therefore seems likely that no (or very few) new projects will enjoy the low gas prices currently enjoyed by existing projects. Consequently, when new projects are benchmarked against existing competitors, the customary “lower quartile” cost position expected by investors and lenders is unlikely to be achieved.

Potential Cash Costs of Projected New Methanol Supply



New methanol capacity will be needed to meet demand which is expected to increase more than 20 million tons in the next five years. The question now arises of how competitive will this required new capacity be?

Methanol Business Drivers



Nexant’s wealth of experience in the methanol sector, combined with our wider global presence in the upstream oil & gas, refined products, biofuel and petrochemical industries, provides us with a unique overview of all factors influencing the development of the methanol business worldwide. This new program distills the core issues and insights from our accumulated expertise to providing subscribers with a good understanding of not only the fundamental drivers but also likely future strategic direction of the methanol industry. We believe this is an invaluable source of insight and strategic business analysis for executives and managers at all levels of the business.

Nexant’s Unique Blend of Capabilities

| STRATEGY CONSULTING | UPSTREAM OIL & GAS PRACTICE |
|---|---|
| <ul style="list-style-type: none"> ▪ Distilling key trends to understand businesses ▪ Portfolio appraisal and positioning ▪ Merger & acquisition support ▪ Customer segmentation ▪ Manufacturing Strategy ▪ Value chain positioning ▪ Growth Strategy ▪ Industry structure analyses | <ul style="list-style-type: none"> ▪ Global gas availability and pricing ▪ Strong experience of alternative gas monetization options including LNG, GTL, ammonia and power ▪ National and regional energy planning ▪ Oil & gas development projects ▪ Upstream oil & gas asset management ▪ Gas value chain analyses |
| CHEMICALS PRACTICE | DOWNSTREAM OIL AND BIOFUELS PRACTICE |
| <ul style="list-style-type: none"> ▪ Strong understanding of methanol and derivative markets, technology and economics ▪ Strong olefins experience and active MTO/MTP evaluation engagements ▪ Market dynamics research and analysis and forecasts ▪ Pricing and profitability scenarios ▪ Performance benchmarking ▪ Cost curve assessments ▪ Techno-economic feasibility studies | <ul style="list-style-type: none"> ▪ Petroleum value chain analysis including ports & terminals, refining, storage & distribution, terminals & depots, fuel wholesaling and retailing ▪ Biofuel market and technology development ▪ Good understanding of fuel markets and the potential for methanol use as a gasoline blendstock, bio-diesel feedstock and DME feedstock |



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