



## RESEARCH REPORT

October 7, 2019

Stock Rating **BUY**  
 Price Target **CAD \$64.69**  
 Current Price **CAD \$45.26**



Ticker	MX
Market Cap (MM)	\$3,449
P/E LTM	7.9x
EV/EBITDA LTM	5.5x

### 52 Week Performance



## Methanex Corp. Fueling the Future

Methanex is the leading global producer of methanol, a ubiquitous chemical with a wide variety of consumer, industrial and energy end-markets. While the stock has performed poorly recently, losing 56% of its value in the last 12 months, the M&M team believes that recent underperformance may offer an attractive buying opportunity.

As with most commodity-driven companies, Methanex's performance and ultimately share price is largely driven by the pricing of the underlying commodity. As the M&M team has not recently been active in our chemicals subsector, we spend the first portion of this report investigating the methanol industry, key drivers in it, as well as an outlook for the industry. Next, we assess how Methanex specifically fits into the methanol industry and how it responds to and is impacted by adverse pricing conditions. While it is normally difficult to generate true competitive advantages or economic moats in commodity sectors, we explore the degree to which Methanex has been able to differentiate itself in the market. Last, we examine a discounted cash flow valuation of Methanex.

The M&M team presents that Methanex and the methanol industry at large present an attractive opportunity to invest in a quality business at a cheap valuation due to a cyclical low in industry pricing. As such, we will conduct further due diligence on Methanex and the methanol industry and look to enter the name in the near future.

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## Company Overview

### Company Overview

Founded in 1992 and headquartered in Vancouver, Canada, Methanex Corporation (TSX: MX) is the world's largest producer and supplier of methanol. It operates production sites in Canada, Chile, Egypt, New Zealand, Trinidad and Tobago and the United States, supplying major international markets in North America, Asia Pacific, Europe and South America. Their operations are supported by an extensive global supply chain of terminals, storage facilities and the world's largest fleet of methanol ocean tankers.

Its product is largely used in applications for construction, pharmaceuticals, energy, and more. Methanex holds a substantial leadership in the methanol industry with a 14% market share relative to the 5-6% held by each of their three next largest competitors.

### Business Model

Within their 11 production facilities spanning six countries, Methanex has an annual production capacity of 9.38M tonnes of methanol. In addition to selling their own methanol, Methanex has various purchase agreements with other suppliers to maintain

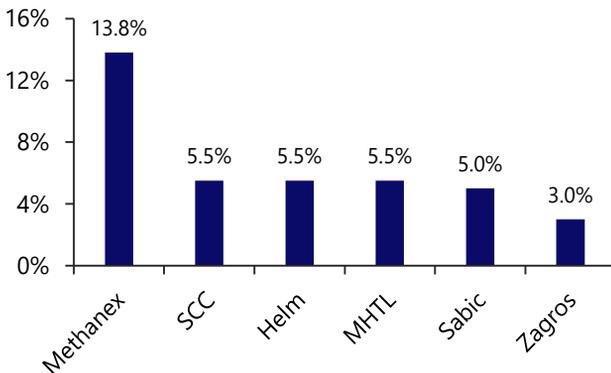
flexible supply levels.

Methanex then leverages an expansive distribution network to deliver methanol in a secure and reliable fashion. With in-region logistics and marketing teams, Methanex uses flexible, region-specific methods to deliver their product to their customers. Their supply chain is underpinned by their wholly owned subsidiary, Waterfront Shipping, which operates the world's largest methanol ocean tanker fleet. Customers are able to view schedules and documentation regarding their order on a secure online platform.

While 45% of methanol produced in the world is used for energy-related utilization, Methanex has been able to diversify its end-user market in order to reduce risk. Methanex serves a wide customer base, with methanol being a critical chemical with various industrial, consumer and energy-related applications as displayed in Exhibit II. Additionally, Methanex has successfully diversified the customers of their methanol, as displayed in Exhibit III. Methanex does not mine the feedstocks. Rather, it creates pure methanol and supply it to those who can further process it and end-users.

### EXHIBIT I

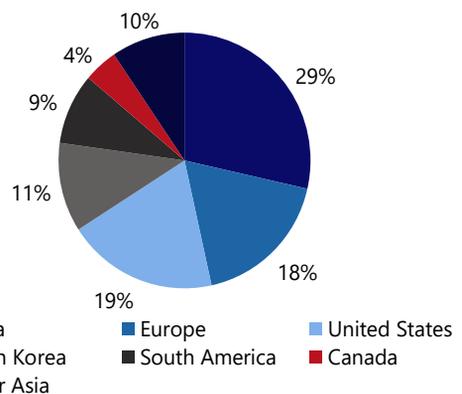
Market Share (%) of Global Methanol Industry Sales



Source(s): Company Filings

### EXHIBIT II

Methanol Usage by Region (2018)



Source(s): IHS Chemical 2019 World Update

## Industry Overview

### Methanol Overview

Methanol is a colorless, often liquid, chemical that has characteristics similar to many conventional fuel sources. It is a key input in many other important industrial chemicals and has many derivative forms. Methanol and its derivatives are used in the production of numerous industrial and consumer products, including building materials, foams, resins, plastics, paints, polyester and health and pharmaceutical products, with these uses making up ~55% of global demand. Methanol has increasingly been seen as an attractive alternative fuel for powering vehicles and ships, cooking food and heating homes due to its clean-burning, biodegradable and cost-competitive characteristics. Fuel uses for methanol make up the remaining ~45% of global demand.

As methanol is a highly commoditized chemical, there is little room for differentiation between products provided by producers. Resultantly, reliability and

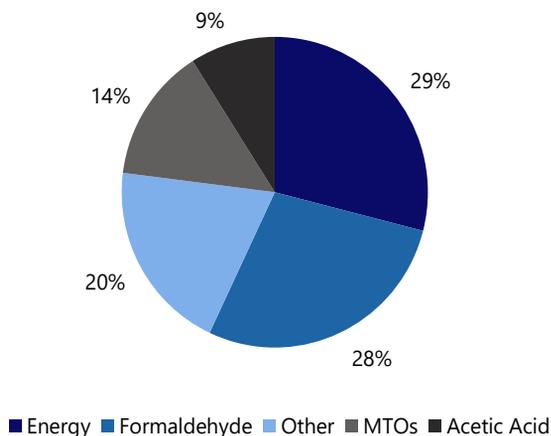
competitive pricing are key to winning customers.

### Methanol Production

Methanol can be produced from multiple sources, but is predominantly produced with either coal or natural gas, with the latter comprising 85% of the methanol supply. In the natural gas production process, natural gas is reformed through steam and is then further converted and distilled, creating a gas mixture. After further processing, clear, liquid, pure methanol is created. The production process requires a great deal of heavy equipment and machinery, with single plants often producing more than 1M tons annually. As natural gas is the primary methanol input, plants are often located close to natural gas extraction sites to reduce transportation costs. Methanol is produced around the world and while it is generally advantageous for production to be located close to where it's being used, a large portion of methanol is shipped overseas.

#### EXHIBIT III

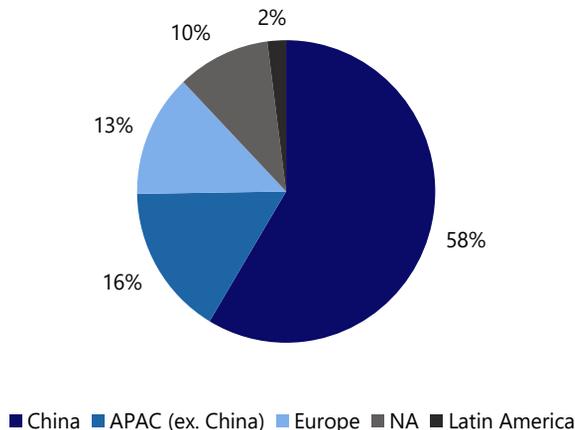
Methanol Usage by Derivative (2018)



Source(s): IHS Chemical 2019 World Update

#### EXHIBIT IV

Methanol Usage by Region (2018)



Source(s): IHS Chemical 2019 World Update

## Industry Outlook

### Methanol Demand

Over the past five years, demand for methanol grew at a CAGR of ~6%, with growth primarily driven by the significant expansion of methanol-to-olefins (MTO) processing plants in China. MTO processes allow for the transformation of methanol into olefins, which are used in petrochemicals and plastics production. The construction of new MTO facilities in China has accounted for 52% of the world's new methanol requirements since 2012. Methanol is also now a commonly mixed with gasoline in China, in much the same way ethanol is in North America, and commonly makes up 15% of Chinese petrol. The growth of MTOs and gasoline blending are expected to be strong growth drivers over the next five years, as demand for methanol is forecasted to grow ~4-5% per year. Additionally, demand for methanol in traditional uses in consumer and industrial products is expected to continue to grow roughly in line with GDP.

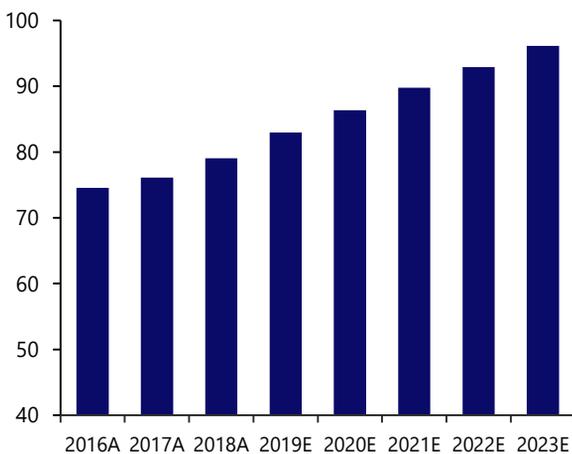
### Methanol Supply

China has also accounted for a large portion of recent methanol capacity growth, with 75% of new capacity added over the last five years located in China. Strong pricing over the last few years has allowed supply to grow ~5% per year, similar to demand growth. Capacity is expected to grow at slightly less than 4% per year over the next five years, although supply growth is partially based upon the economic viability of new projects which is largely dependent on demand and resultant pricing.

The global methanol average price is currently ~US\$285 per metric ton, very near cyclical lows. Methanol prices this low are around the cash operating costs of many Chinese producers, meaning that there is very little risk of further downside in pricing. IHS Markit forecasts pricing to recover to the US\$300-325/mt range by early 2020 due to improved Chinese demand and supply curtailments.

#### EXHIBIT V

Global Methanol Demand (Millions of Tons)



Source(s): BMO Capital Markets

#### EXHIBIT VI

Methanol US Spot Price (USD/metric ton)



Source(s): Methanol Institute

## Methanex Management

### Management Overview

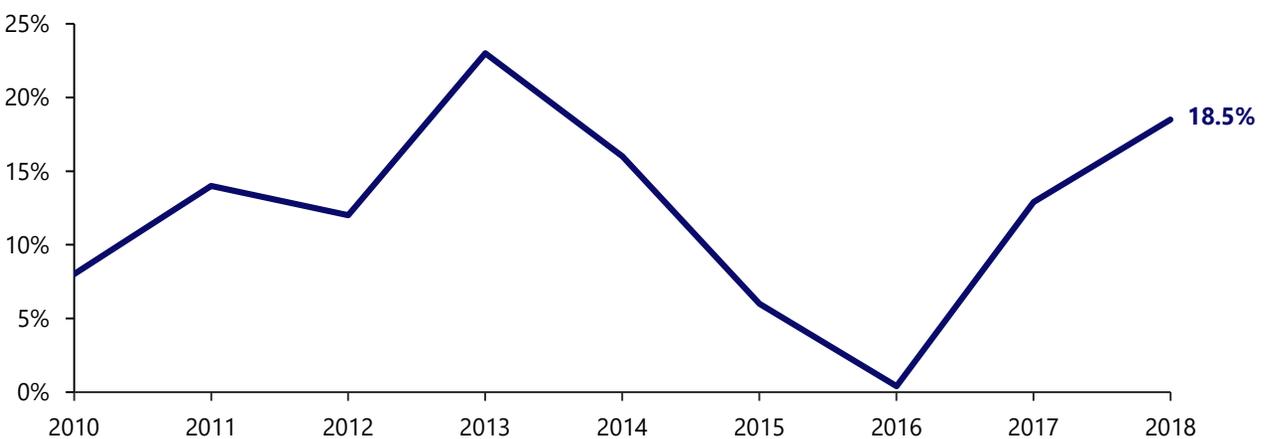
Methanex has an experienced management team with a track record of strong operational performance and prudent capital allocation. John Floren, President and CEO, has been with the company for 19 years and has worked in the chemicals industry for over 30 years. Management has a strong vision of Methanex continuing to be the leading methanol producer globally and has shown that they understand how to effectively grow the company to achieve this goal. A key to this is management's willingness to make investments for the long-term benefit of the company, even at the potential cost of short-term pain. A recent example of this is management's decision to go ahead with the Geismar 3 project, which will create substantial low-cost production capacity at a relatively low capital cost. While many members of the management team are relatively old and advanced in their careers, the company has a strong succession plan, with internal candidates ready to step into key roles should the need arise.

### Management Alignment

Methanex does a solid job of creating alignment between management and shareholders through management compensation structure. Among senior management, 70-83% of compensation is based upon achievement of set performance targets. Incentive-based compensation is linked to specific corporate goals for individual NEOs, individual performance and overall corporate performance, measured through Return on Capital Employed (ROCE). ROCE is a metric very similar to ROIC in measuring management's effectiveness in allocating capital and thus is a desirable measure of management performance for shareholders. Additionally, 50% or greater of all NEOs compensation is in the form of long-term incentives, encouraging management to take a long-term view of the company's performance. However, a large portion of long-term incentives come in the form of stock options, which are not ideal for aligning management interests.

### EXHIBIT VII

Methanex Return on Capital Employed 2010-2018



Source(s): Company Filings

## Operating Model: Commodity-Based Cost Structure

### Understanding Natural Gas

The most significant component of Methanex’s cost structure is natural gas for feedstock. Like other commodities, natural gas prices are driven by traditional supply and demand economics. The main supply factors include the amount of natural gas production and the level of natural gas in storage, while demand is largely shaped by weather conditions, the level of economic growth – due to its prevalence as a fuel or feedstock for many industrial goods – and the availability and prices of other substitute fuels.

Since most natural gas producers and consumers are unable to rapidly switch fuels, minor supply and demand fluctuations tend to cause significant changes in natural gas prices in the short term.

Recent years have seen largely favourable natural gas prices with strong supply and various new discoveries serving to depress prices. That being said, natural gas can be difficult and expensive to transport due to its gaseous state and thus tight supply contracts and contingencies are needed to secure adequate feedstock.

### Implications for Methanex

With a strong long-term growth outlook for methanol and an associated rise in current production, methanol

plants are increasingly becoming one of the largest industrial end-users of natural gas. As such, maximizing plant utilization and production is largely becoming a function of being able to secure a sustainable supply of natural gas feedstock.

Any number of factors, from supply shocks and weather-related supply reductions to simple facility maintenance by suppliers, can result in temporary reductions in natural gas supply and resulting losses in production. With that said, Methanex has been able to secure long-term supply contracts for all their facilities, limiting their exposure to the risk of unforeseen production shutdowns.

### Third-Party Methanol Supply

In addition to producing the majority of its methanol, roughly 35% of Methanex’s volume sales are from methanol purchases from third parties, which provides them with flexibility in their supply chain to meet customer commitments. Methanex acquires methanol through a combination of offtake contracts and spot purchases. Their global supply chain infrastructure uniquely allows them to target methanol in cost-effective regions while maintaining a reliability of supply for their customers.

### EXHIBIT VIII

Henry Hub Natural Gas Historical Spot Price (Dollars per Million Btu)



Source(s): U.S. Energy Information Association

## Operating Model: Understanding the Methanol Price Cycle

### Methanex: Price Taker

While Methanex is able to enjoy cost advantages, they lack pricing power, making the methanol pricing cycle one of the critical factors affecting year-to-year success of the company.

### Demand Drivers and Risks

Due to the diversity of the end products in which methanol is used, demand for methanol is affected by a myriad of factors including industrial production, energy prices and changes in general economic conditions.

Changing technologies and their adoptions are also another critical factor. Methanex takes an active approach in helping pilot new demand for its products. It worked with partners in China to pilot high-level methanol blends in fuel supply, translating to adoption of 100% methanol fuel being used by taxis in two cities in China as of 2018. It is also a frontrunner in promoting the use of methanol as an alternative shipping fuel amidst increasingly stringent marine fuel environmental regulation.

Changing technologies as well as regulatory changes can also drive a negative impact to demand as certain derivatives of methanol are replaced. For example, 30% of Methanex's methanol demand comes from the

production of one of its derivatives, formaldehyde, which is most commonly used in adhesives processed wood products. However, formaldehyde has been classified as "likely to be carcinogenic" and this conclusion and further EPA studies could prompt reduction of its use. Similarly, methanol could be substituted out of other industry and energy uses if technological innovation or regulation prompts change.

### Supply Drivers

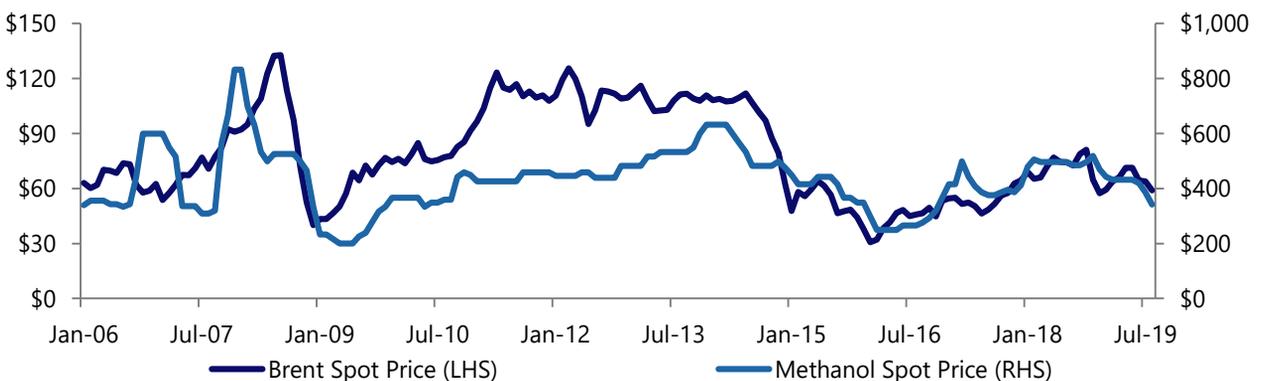
As the demand outlook for methanol improves, several large-scale capacity additions are on the horizon, however, there appears to be substantial demand to support this in present day. Given the lead-time on capacity expansion is shorter than for other commodities in our sector, there is less potential for long-term oversupply unless there is a fundamental demand change substantial substitution out of a major end use.

### Oil and Methanol Relationship

Methanol prices also correlate partly with natural gas and crude spread. Crude can act as a substitute for methanol (and vice versa), which is one reason for this relationship.

### EXHIBIT IX

Historical Brent Spot Price Compared to Methanol Spot Price in U.S.



Source(s): U.S. Energy Information Association

## Operating Model: Methanex’s Exposure to Cyclical Downturns

### How Methanex Hedges Against Cycles

With regards to natural gas purchasing, Methanex has half of their production underpinned by natural gas supply contracts that have a variable price component linked to the price of methanol. They also stabilize their natural gas prices through several fixed-price contracts enabled through trade-offs such as take-or-pay agreements. Lastly, they engage in the purchase of derivative securities to further hedge against both commodity price cycles and currency risks.

### Exposure to Cyclical Downturns

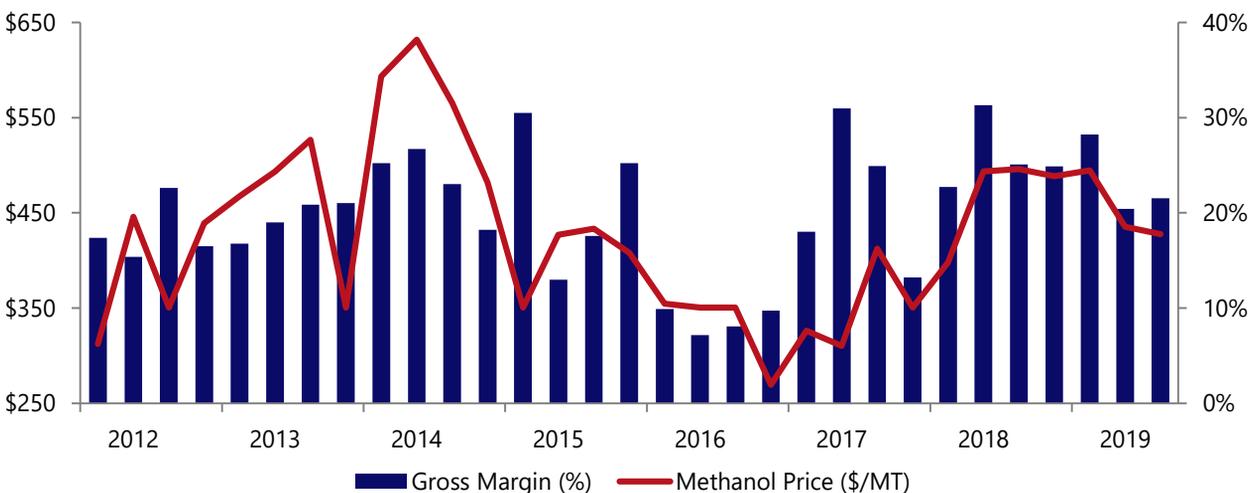
Despite hedging efforts, Methanex’s high exposure to the price of methanol is evident through its gross margin correlation with the methanol reference price. Thus, while hedging subdues the impact of natural gas prices on Methanex’s operating model, the business is still cyclical, and this is amplified by the high operating leverage that enables its low-cost advantage.

Methanol production capacity remaining idle has high costs along with the many take-or-pay contracts it has in place to secure a low-cost natural gas feedstock supply. Methanex diverts this impact partially by using third-party contracts to supply up to around one third of its sales. This enables the company to not need excess capacity to reliably supply to customers when demand spikes in the short-run. However, this mitigation does not apply to situations such as maintenance or choked natural gas supply hindering its capacity utilization.

Another substantial fixed cost that the business is tied to is its marine shipping fleet. If there is a year with lower demand or production constraint at Methanex’s facilities, maintenance and depreciation of the fleet along with docking fees and other expenses will remain. This can be partly mitigated by using the fleet to help other companies outsource their shipping, provided that shipping demand is substantial.

### EXHIBIT X

Non-Discounted Methanol Reference Price vs. Methanex Margins



Source(s): Company Filings

## Assessing the Moat: Market Leader with Cost Advantage

### Market Leadership

Methanex is the clear market leader in the methanol industry, with nearly a 14% market share, double that of their next largest competitor. They have an unparalleled global presence with offices, terminals and storage facilities in every major commercial region in the world, and most importantly, have strategically located production facilities to supply major markets. This expansive network, giving Methanex a fully integrated supply chain and distribution network, is fundamental to Methanex's long-term success, enabling them to provide reliable and secure supply to customers across a global landscape. Methanex has localized offices to provide local customer service to their customers.

### Cost Advantage Logistics

The global scale of Methanex's network enable it to have a cost advantage as it can produce and purchase methanol from regions where costs are lower and ship to regions where there is high demand. Global scale and ownership of its own shipping fleet (of which 40% can be flexibly powered through methanol or petroleum-based fuel) enables greater supply flexibility so that Methanex can optimize its fixed costs and capacity ownership.

Another aspect that enables cost-leadership for Methanex is its ability to secure a relatively stable and low-cost natural gas supply to competitors through its geographic diversification and array of stable long-term contracts (enabled by its financial capacity to use large take-or-pay contracts). As natural gas can be tricky and expensive to transport, its supply source has to be kept in mind when establishing production facilities. Shipping complexities are exemplified through the large shipments of liquid natural gas from Russia to New England in 2018 peak winters despite the region producing excess gas as there was not substantial infrastructure to transport regional natural gas production to where it was needed or convert it to liquid for easy transport.

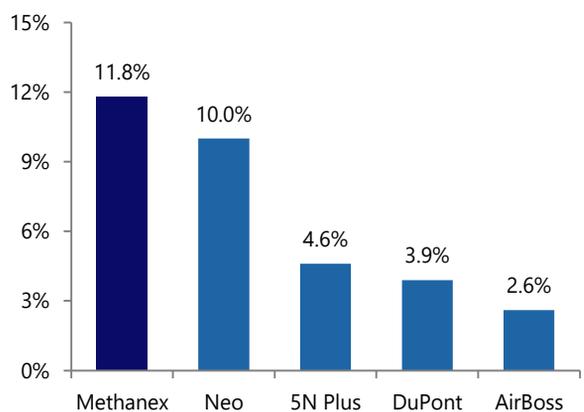
### Assessing the Impact and Replicability

Although not completely inimitable, the level of fixed capital investment that it would take to recreate this network, mainly production facilities and fleet ownership, makes it a relatively strong cost-based competitive advantage. With this position, Methanex has significant and inimitable franchise value in the methanol industry. While this does not subscribe Methanex any pricing power, they are viewed as the industry-leading alternative for methanol supply ensuring stability and potential in their share of methanol demand.

Methanex is very well-positioned on the global methanol cost curve, with an ability to generate positive cash flow across the possible spectrum of methanol prices. In assessing Methanex's margins, the ideal direct comparable to competitor methanol producers could not be made as they are almost all private companies; however, in comparing their margins to peer chemical companies, Methanex is clearly in a very strong standing with an 11% net margin.

#### EXHIBIT XI

Net Margins of Comparable Chemical Companies

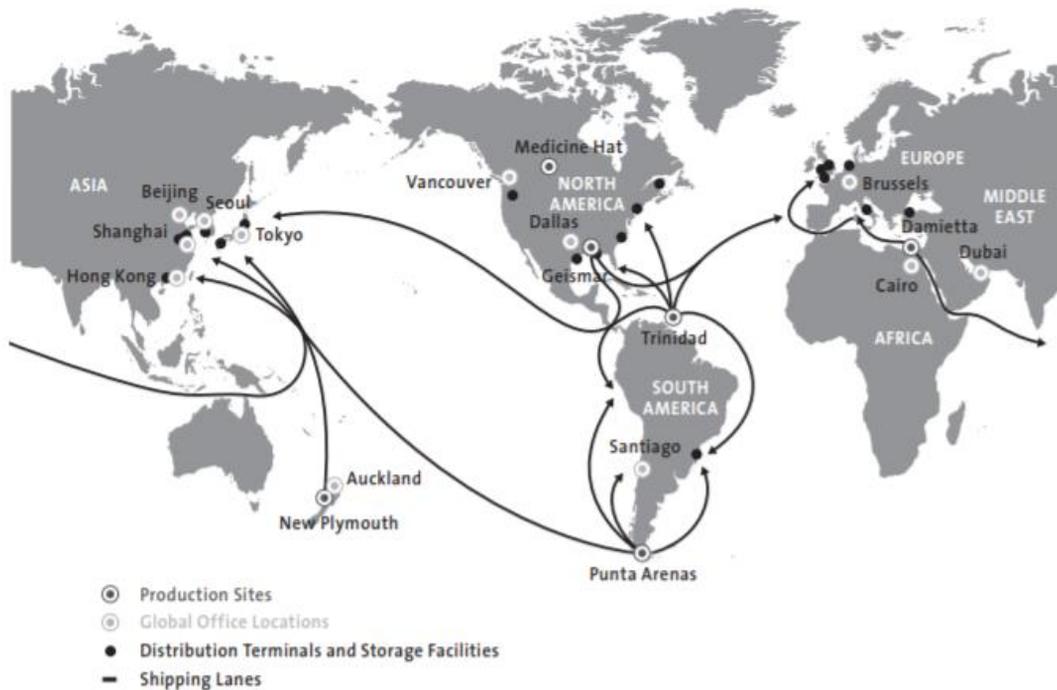


Source(s): S&P Capital IQ

\*No direct methanol competitors are public companies

**EXHIBIT XII**

Methanex's Interlinked Global Supply Chain



**Global Production Facilities**

*Methanex's global production sites are strategically positioned to supply every major global market.*

**New Zealand**

Our three plants in New Zealand supply methanol primarily to customers in Asia Pacific.

**United States**

Our two plants in Geismar have the capability to serve customers in all major markets around the globe.

**Trinidad**

Our two plants in Trinidad, Titan and Atlas (Methanex interest 63.1%), supply all major methanol markets around the globe.

**Egypt**

Our joint venture in Egypt (Methanex interest 50%) is located on the Mediterranean Sea and primarily supplies methanol to the domestic and European market, but can also supply Asia.

**Canada**

Our plant in Medicine Hat, Alberta, supplies methanol to customers in North America.

**Chile**

Our two plants in Punta Arenas, Chile supply methanol to customers in South America and around the globe.

## Valuation

We focused our valuation effort for Methanex on a discounted cash flow model, as there are effectively no true comparable companies to benchmark Methanex against. Our base-case implied share price was \$49.53 for Methanex, implying a 48.5% return including dividends. While this is a high level of implied return for a base-case forecast, we approached our base-case scenario as an estimation of what Methanex's operations would look like at an average point in the methanol commodity cycle. Although methanol prices may be depressed currently, they will surely not stay that way forever. As such, by creating a valuation of Methanex during "normal" conditions we can assess what we can reasonably expect the value of the company to be through the commodity cycle.

We began our revenue forecasts for Methanex with global methanol demand estimates provided by BMO

Capital Markets. Based on global methanol demand, we assumed that Methanex would continue to capture approximately the same share of the world market that they have in recent years, providing us with forecasted sales volumes for the coming years. As Methanex has ample existing untapped production facilities, our volume forecasts are all within their current production capacity. Methanol pricing was the main input that we varied in our analysis, with different forecasts based off expert predictions and historical commodity cycles. In our base-case, we assume that methanol prices return to the lower-end of their historical averages, in line with estimates from RBC. To calculate the discount rate, we used the CAPM to derive a WACC of 7.80%, based on a company beta of 1.697. As Methanex is the only publicly listed methanol company in our universe, we believe its individual beta best reflects the idiosyncratic risk associated with the company.

### EXHIBIT XIII

#### Base-Case Discounted Cash Flow Analysis

Discounted Cash Flow									
All values in US\$ millions unless otherwise stated For the years ended 31-Dec	2016A	Historical 2017A	2018A	2019E	2020E	Forecasted			
						2021E	2022E	2023E	
<b>Revenue (Methanol Sales)</b>	\$1,998	\$3,061	\$3,932	\$3,601	\$3,747	\$3,958	\$4,098	\$4,241	
Revenue Growth %	(10.2%)	53.2%	28.5%	(8.4%)	4.1%	5.6%	3.5%	3.5%	
Cost of Sales	(\$1,492)	(\$2,012)	(\$2,591)	(\$2,520)	(\$2,623)	(\$2,771)	(\$2,869)	(\$2,968)	
<b>Gross Margin</b>	\$506	\$1,049	\$1,341	\$1,080	\$1,124	\$1,187	\$1,229	\$1,272	
Gross Margin %	25.3%	34.3%	34.1%	30.0%	30.0%	30.0%	30.0%	30.0%	
SG&A	(\$282)	(\$340)	(\$266)	(\$360)	(\$375)	(\$396)	(\$410)	(\$424)	
<b>EBITDA</b>	\$224	\$709	\$1,075	\$720	\$749	\$792	\$820	\$848	
EBITDA %	11.2%	23.2%	27.3%	20.0%	20.0%	20.0%	20.0%	20.0%	
Depreciation and Amortization	(\$228)	(\$232)	(\$245)	(\$288)	(\$300)	(\$317)	(\$328)	(\$339)	
<b>Operating Income (Methanex)</b>	(\$4)	\$476	\$830	\$432	\$450	\$475	\$492	\$509	
EBIT %	(0.2%)	15.6%	21.1%	12.0%	12.0%	12.0%	12.0%	12.0%	
Plus: Dividends from Associates	\$47	\$85	\$63	\$70	\$70	\$70	\$70	\$70	
<b>Income (Including Associates)</b>	\$43	\$561	\$893	\$502	\$520	\$545	\$562	\$579	
Tax Rate %	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	
Income Tax Expense	(\$12)	(\$151)	(\$241)	(\$136)	(\$140)	(\$147)	(\$152)	(\$156)	
<b>NOPAT</b>	\$32	\$410	\$652	\$367	\$379	\$398	\$410	\$423	
Less: Increases in Changes in WC	(\$10)	\$38	\$166	\$66	(\$11)	(\$16)	(\$11)	(\$11)	
Add: Depreciation	\$228	\$232	\$245	\$288	\$300	\$317	\$328	\$339	
Less: Capital Expenditures	(\$100)	(\$103)	(\$245)	(\$310)	(\$350)	(\$400)	(\$400)	(\$339)	
<b>Unlevered Free Cash Flow</b>	\$170	\$501	\$486	\$279	\$340	\$331	\$349	\$434	
Discount Period				0.5	1.5	2.5	3.5	4.5	
Discount Factor				0.96	0.89	0.83	0.77	0.71	
<b>Present Value of UFCF</b>				\$ 268	\$ 304	\$ 274	\$ 268	\$ 309	

Source(s): Company Filings, BMO Capital Markets, RBC Capital Markets

## Conclusions

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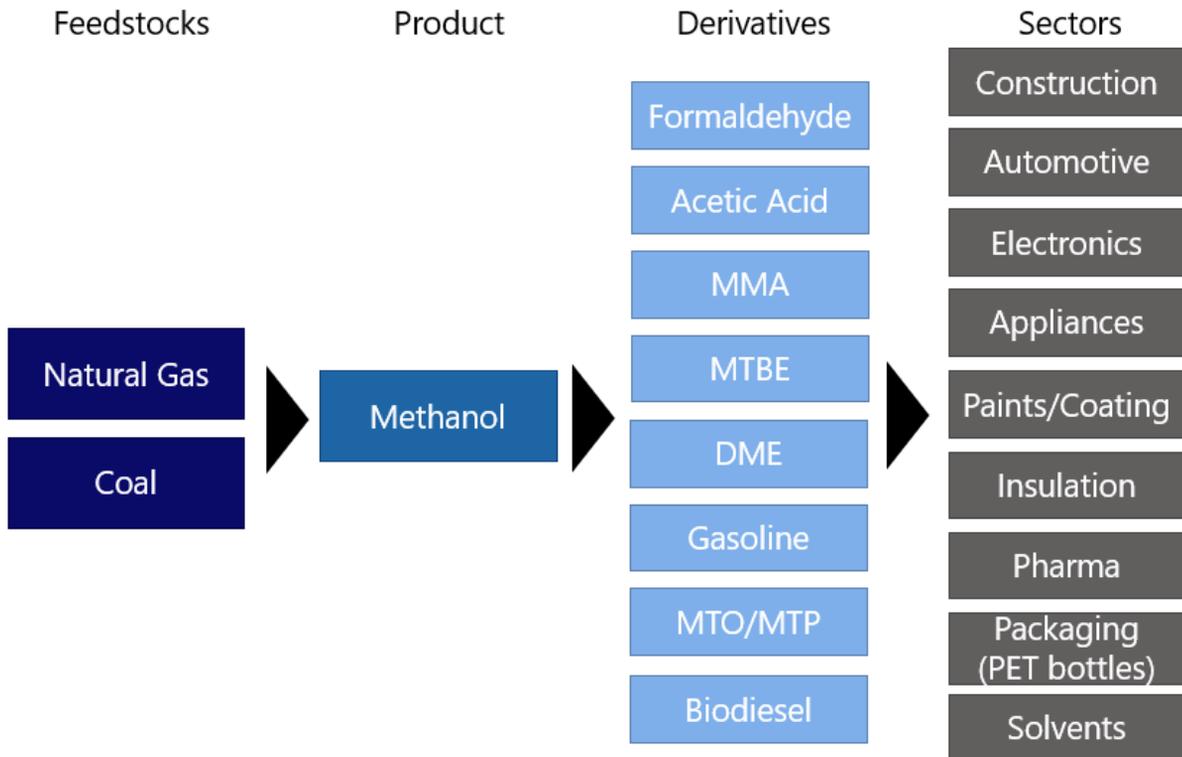
Overall, the M&M team believes that Methanex presents a very attractive investment opportunity. The methanol industry is one of the more favorable commodity-driven industries to invest in due to the relative stability of demand for methanol, in part a result of its highly diversified end markets. Additionally, it is one of the more responsive subsectors in the M&M's investment universe, with relatively low lead times to bring new capacity online and demand that will respond strongly to depressed pricing. As a result, methanol is comparatively unlikely to end up in a prolonged cyclical low.

Given that we like the industry in general, Methanex appears to be the strongest and best positioned methanol producer. Its market leading position, transportation network, strong management and cost advantages allow Methanex to separate itself from competitors. Additionally, Methanex appears to be significantly undervalued relative to its performance and earnings in a "normal" methanol pricing environment.

An investment in Methanex would also work well for M&M from a portfolio management perspective. It would give the portfolio another holding outside of precious metals to allow the team to diversify away from gold.

While we like Methanex based on our initial work thus far, we would like to further explore key risks with the company before making an investment. Additionally, we will also need to be cognizant of the true strength of the economic moats that we identified in this memo.

## Appendix: Methanol Value Chain



## References

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1. BMO Capital Markets
2. CIBC Capital Markets
3. Company Reports
4. Globe and Mail
5. Google Images
6. Methanol Institute
7. RBC Capital Markets
8. S&P Capital IQ
9. Scotiabank
10. Thomson Reuters