Sector Note

Middle Eastern Chemicals

Chemicals | MENA MENA Research

Trading opportunities aplenty

- **Near doubling of earnings and share prices relative to 2010 levels possible in a peak**
- **Plant start-ups, information flow lags, and valuation present short-term opportunities**
- **Chemanol, TASNEE, and Sipchem attractive in the near term, SABIC in the near and long term**

While we are firm believers that the next leg of the chemical up-cycle is upon us with as much as a near doubling in share prices possible under peak conditions, which could happen as early as 2013 according to our estimates, we see 3 near-term trading opportunities in the MENA region:

Plant start-ups: Yansab shares remained essentially flat through the course of 2009, when most petrochemical names were rallying strongly, only to appreciate by over 60% in early 2010 on the back of the company's announcement to start commercial production. We see a similar trend evolving with Saudi Kayan shares, which have remained flat throughout 2010 and may experience solid appreciation, despite being fully valued in our view, as the company announces a start-up date in 2011.

Lessons from the West: We believe there is a lag between fundamental and pricing changes in the West, and the flow of that information and associated share-price movements in the MENA region. We believe substantial pricing improvements during 4Q10 in methanol and titanium dioxide and large share-price appreciations in producers of these products in the West (Methanex and Tronox) have not been accounted for in the valuations of MENA methanol producers Chemanol and Sipchem, nor in that of MENA titanium dioxide producer TASNEE, which presents a compelling near-term trading opportunity.

Valuation anomalies: Our analysis suggests that typical chemical cycles result in 3 legs of share-price appreciation and that we may have seen only 1 of these 3 legs as of yet. We further contend that as MENA petrochemical names are new to the public domain, investors may not yet fully appreciate the peak earning power of the companies and the associated appreciation of their share prices under peak conditions. The companies under our coverage could experience an average of 50% EBITDA upside relative to 2010e levels under mid-cycle conditions and 85% upside under peak conditions. We further contend that at current levels, SABIC shares remain undervalued relative to peers under both mid-cycle and peak scenarios.

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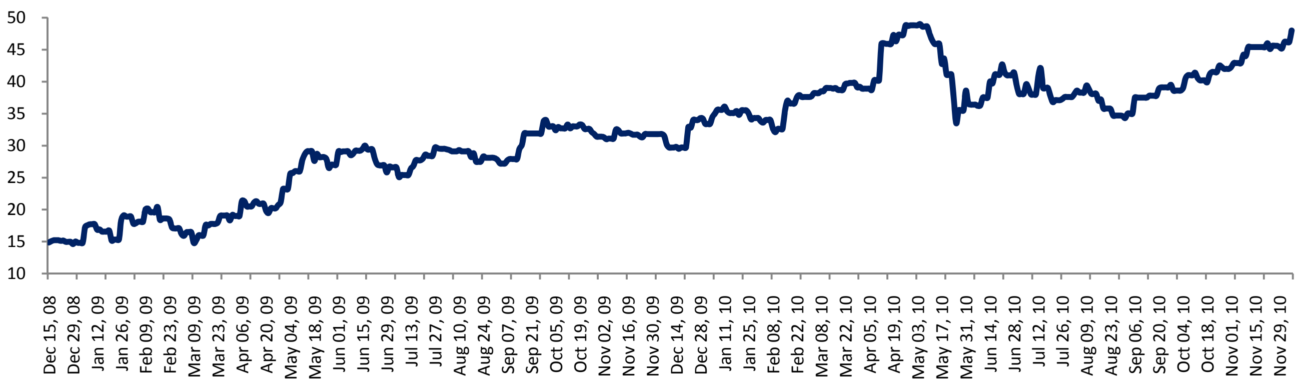
Analyzing MENA market inefficiencies

Although we consider ourselves fundamental analysts and generate our company ratings based on what we consider to be medium- to long-term industry dynamics and valuation metrics, we do see certain short-term trading strategies in the MENA region. We can broadly classify these strategies into 3 groups: (1) project start-ups; (2) intra-quarter pricing and fundamental changes; and (3) valuation anomalies.

New project start-ups result in share-price appreciation

One of the rather bizarre phenomena we have observed in MENA markets relates to significant share-price appreciation following the announcement of the commercial start-up of a new facility in the region. Probably the best example of this is provided by Yansab; as seen in the chart below, the company's shares remained essentially flat over the course of 2009, when most petrochemical shares in the region experienced substantial share-price appreciation, but rallied strongly on news of an imminent commercial start-up in early 2010.

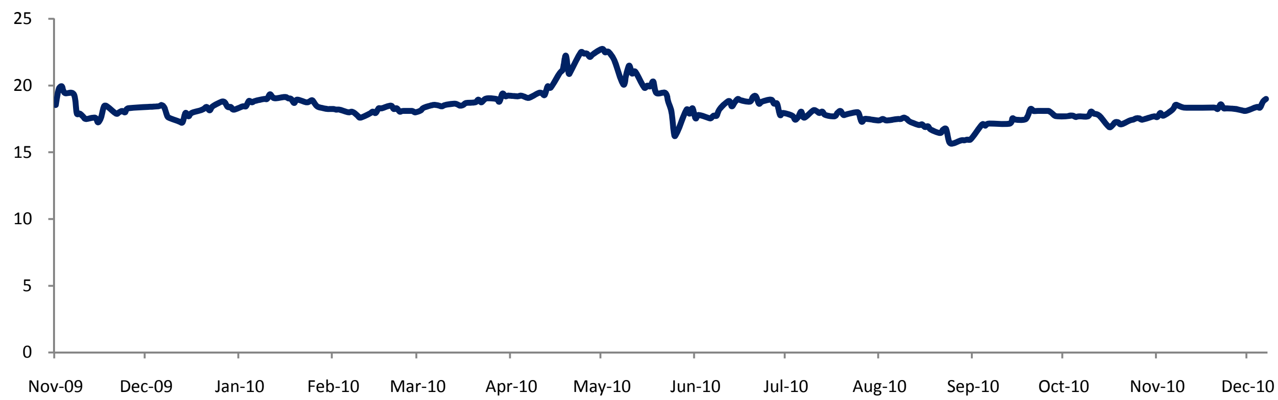
Yansab share-price appreciation following commercial start-up announcement (SAR/share)



Source: Bloomberg, AlembicHC

We have noticed a very similar trend in Saudi Kayan shares, which have remained flat through much of 2010 (as seen in the chart on page 3) but are beginning to show signs of life ahead of a commercial start-up at some point in 2011. Going by the Yansab example, we believe Saudi Kayan shares may actually experience decent share-price appreciation, despite being fully valued in our view, when the company announces its start-up plans in 2011.

Saudi Kayan share-price performance (SAR/share)



Source: Bloomberg, AlembicHC

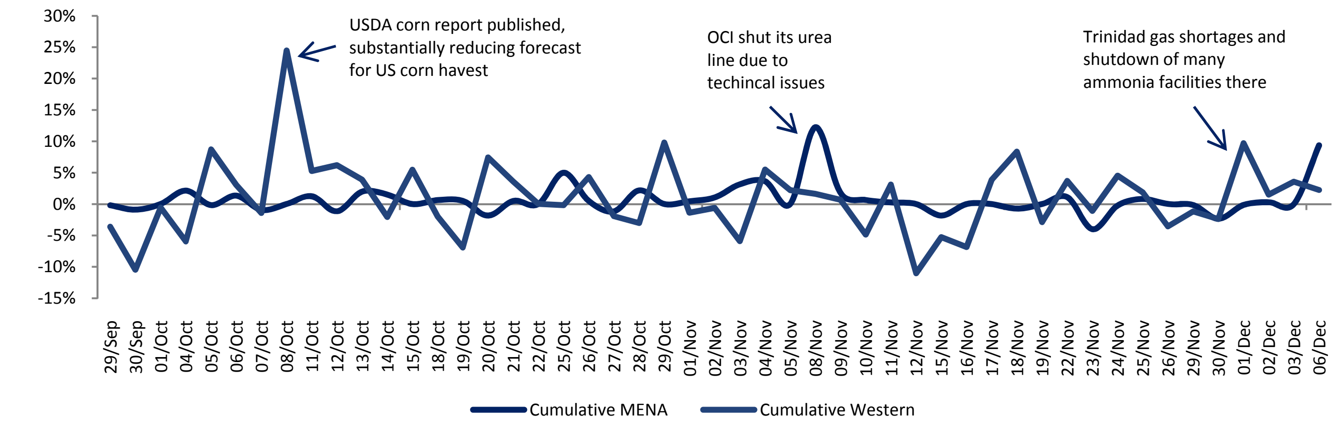
Pricing and fundamental lessons from the West

One of the points we consistently make is that the chemical market is a global one. Most chemical products are globally traded with the price-setting mechanism being a global one as well. We have consistently noticed changing market and pricing dynamics being observed first in the West, with Western shares reacting to these changes but information flow and associated share-price movements occurring among similar MENA stocks after a lag of up to several weeks.

We believe MENA investors still react to local news rather than looking beyond the region at evolving global trends in an industry that, as stated earlier, is a global one. Case in point: the nitrogenous fertilizer industry. Shares of CF Industries and Yara International rallied strongly in early October on news that the USDA had cut its 2011 corn harvest forecast. This forecast reduction led to rallying corn and, in turn, urea prices, which would benefit all urea producers, not just those in the US and Europe. However, share prices of MENA nitrogenous fertilizer producers IQ, OCI, and SAFCO rather surprisingly did not react at all to this news.

Such global events were ignored by the MENA market despite clearly being constructive for fertilizer pricing, while regional news about OCI shutting down 1 of its urea lines resulted in a rally among the MENA nitrogenous fertilizer names. In the chart at the top of page 4, we provide a share-price performance index for MENA (IQ, OCI, and SAFCO) and Western fertilizer producers (Agrium, CF, and Yara), which highlights this disconnect.

Share-price performance of Western and MENA nitrogenous fertilizer producers in the past 4 months

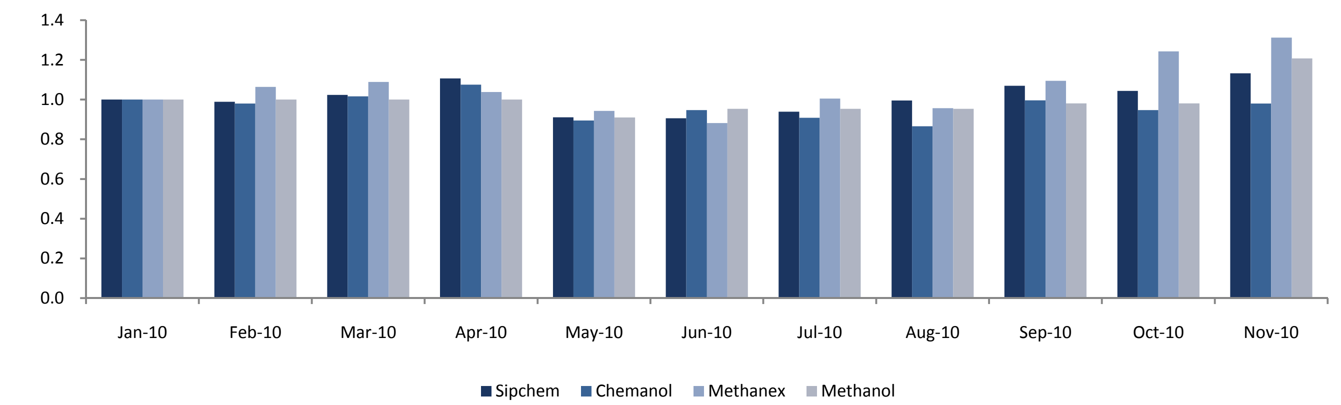


Source: Bloomberg, AlembicHC

We believe MENA investors can generate significant alpha by following the evolution of fundamental and pricing trends in Western markets and benefiting from their delayed impact on associated names in the region. Based on this analysis, we believe that 4Q10 pricing and margin improvements in both methanol and titanium dioxide (TiO_2) are still not fully appreciated by certain MENA shares exposed to these product areas.

In the chart below, we highlight how methanol prices have rallied over 20% since 3Q10, resulting in an equivalent move in the share price of Methanex, a Western pure-play methanol producer. Chemanol, a MENA methanol producer, and Sipchem, which derives over half its earnings from methanol, have experienced -2% and +6% moves in their share prices respectively during the same period. We believe there may be a short-term trading opportunity in both these names, on the back of strengthening methanol margins and the associated impact on 4Q10 results, which we believe will be substantially higher than 3Q10 levels.

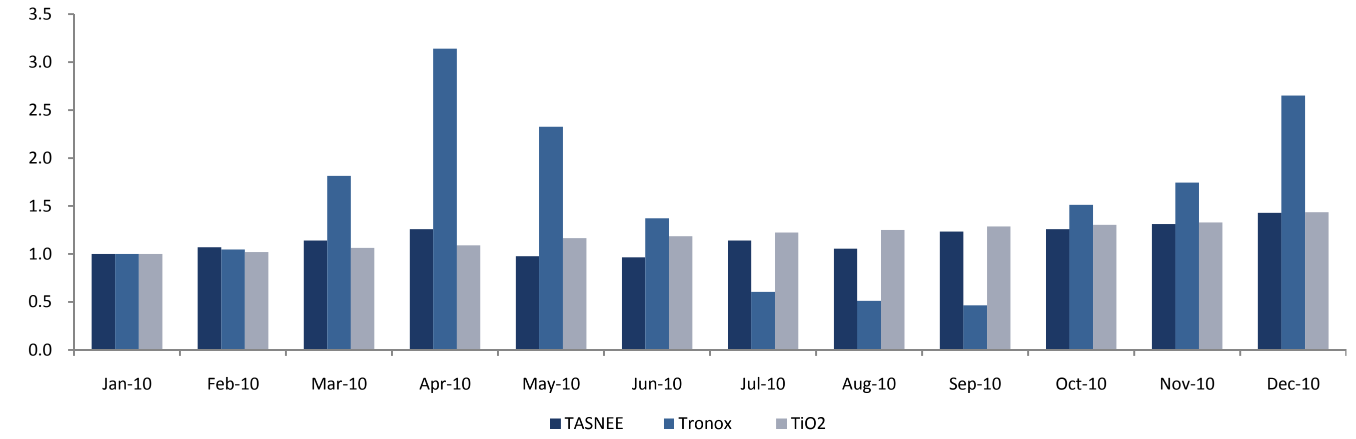
Indexed performance of methanol-exposed companies' share prices



Source: Bloomberg, AlembicHC

Similarly, TiO_2 prices have steadily risen over 10% during 4Q10 with more price hikes on the table and sound 2011 pricing prospects. On the back of these price hikes Tronox, a US based pure-play TiO_2 producer, has experienced a near 500% appreciation in its share price through the course of 4Q10, while TASNEE, which generates around 20% of its earnings from TiO_2, has only experienced a 16% share-price appreciation during the same time period, as seen in the chart below.

Indexed performance of TiO_2 prices and TiO_2-exposed companies' share prices



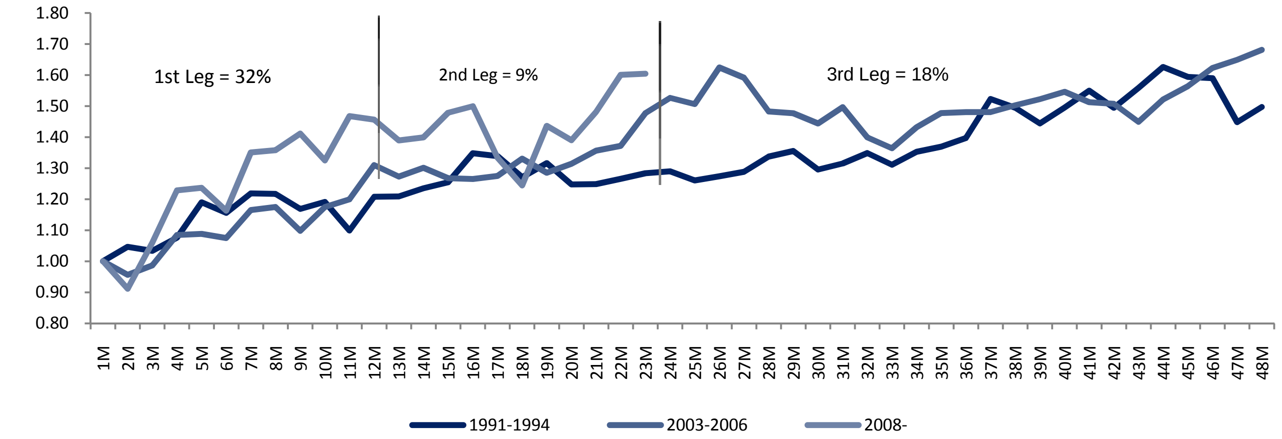
Source: Bloomberg, AlembicHC

Valuation anomalies persist

Beyond these near-term trading opportunities, we believe the biggest opportunity, and in our view misconception, in MENA markets surrounds valuation. The average MENA petrochemical company has been trading in the public domain for a handful of years with long-term trading histories covering multiple cycles therefore unavailable. We believe there is a misconception in the market that the petrochemical rally is behind us and thus we feel the market may not yet fully appreciate the peak earnings potential of most petrochemical names in the region.

In the chart on page 6, we show what we consider to be the 3 legs of a typical petrochemical share-price rally after crashes in share price. 1991, 2003, and 2008 were all years when petrochemical shares experienced precipitous declines. In the first 12 months following those declines, the S&P Chemical Index appreciated strongly by 32% on average on the back of early signs of an economic recovery, which is not very dissimilar from what we have seen in 2009/2010. Months 12–24 can generally be categorized as direction-finding periods, as market participants attempt to evaluate the robustness and sustainability of the economic recovery, with the S&P Chemical Index appreciating by around 9% on average during this period. Finally, beyond 24 months there tends to be another strong rally in chemical shares with the S&P Chemical Index appreciating by 18% during this period. This analysis suggests that as we march towards a peak in the chemical cycle, there may still be a substantial amount of room left for chemical shares to run.

S&P Chemicals Index performance following crashes



Source: AlembicHC

Another way of thinking about valuation is to analyze how far we are from share-price highs set in prior peak periods (see the table below). While the share-price appreciation from the lows has been impressive, it is worth highlighting that on average the large cap global chemical names could appreciate by over 100% to attain their prior peak levels.

Chemical share price relative to prior troughs and peaks

Company	High	Low	Current	Appreciation from lows	Appreciation needed to reach highs
Braskem (USD)	34	4	19	325%	84%
Dow Chemical (USD)	57	6	34	469%	69%
Industries Qatar (QAR)	228	53	134	152%	70%
SABIC (SAR)	252	34	106	214%	139%
Average				**183%**	**104%**

Source: Bloomberg, AlembicHC

Understanding peak earnings power

As stated earlier, we believe most MENA investors have not experienced a peak in the chemical cycle before since most MENA petrochemical names are relatively new to the public equity domain. In our opinion, most investors view IQ's and SABIC's share-price highs in the 2007/2008 time period as a function of the euphoria associated with the MENA market in general around that time, rather than as the result of a peak in the chemical cycle. We believe those highs could easily be revisited when the next peak in the cycle transpires, which, in our view, could be as early as 2013 (it is worth noting that peaks in valuation happen 9–12 months before peaks in earnings).

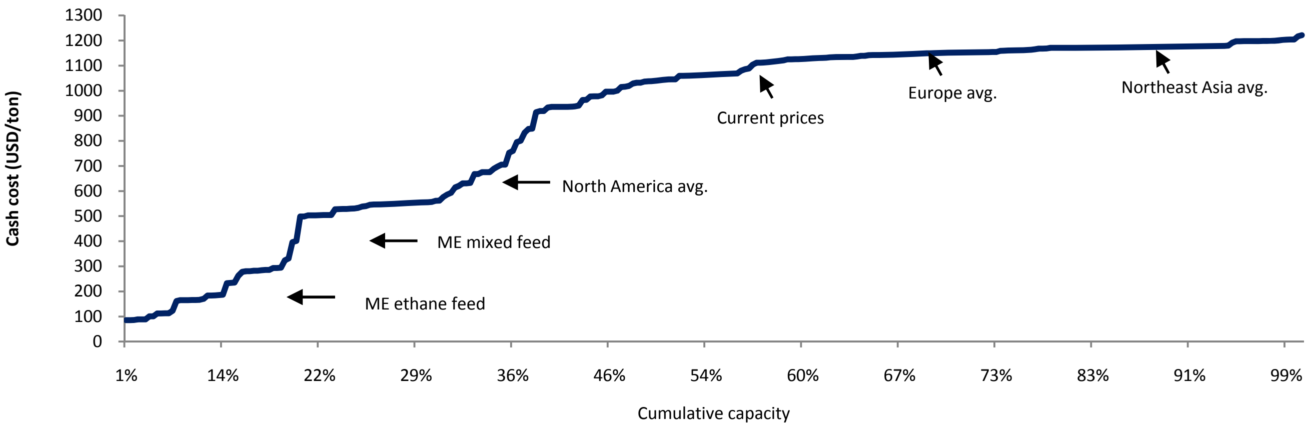
In the chart on page 7, we show our proprietary plant-by-plant global ethylene cost curve assuming US natural gas costs of USD4.50/MMBtu; crude oil prices of USD75/bbl; and, for Saudi mixed-feed facilities, a 35-65 ethane-propane mix similar to Yansab's. Worth noting on the cost curve are the following 3 things:

(1) At current ethylene prices, over 50% of global ethylene capacity is generating negative cash margins, a clear sign that pricing may have bottomed out and needs to rise.

(2) While Middle Eastern mixed-feed facilities hold a significant advantage over the marginal producers, their competitiveness is almost comparable to US ethane-based producers.

(3) In the current pricing environment, Asian and European producers look the most vulnerable. We would opine that Western European producers stand to lose the most in the current environment, as not only are they high-cost producers but also have subscale facilities with an average age of around 33 years, resulting in substantially higher maintenance CAPEX relative to their global competitors.

Global ethylene cost curve (USD/ton)



Source: AlembicHC

The main point to take away from this is that in the current high crude oil and low natural gas price regime, a naphtha-based producer is the marginal producer and hence the price setter. Even if a trough were to happen, as long as the current energy price regime persists all we would see would be a fall in ethylene prices to marginal or naphtha-based production costs, and US ethane-based producers continuing to enjoy very healthy margins due to the pricing umbrella provided by high-cost, naphtha-based producers. The emergence of shale gas, in our view, will serve to keep the disconnect between crude oil and natural gas prices well above its historic average.

What is quite evident from our cost curve shown earlier is that at current ethylene pricing levels, the marginal naphtha-based ethylene producers are making break-even cash margins at best. This is not inconsistent with what one would expect in the current phase of the cycle: global ethylene capacity utilization, according to our estimates, remains at around 86%, which would imply trough or break-even margins. That said, as we march towards mid-cycle (88%–90%) and eventually peak capacity utilization rates (over 90%) we would expect to see a pickup in cash margins earned by the marginal producers.

In the table below, we provide historic mid-cycle and peak cash margins for marginal producers by product, looking at monthly product margin history going back 30 years. In order to come up with normal and peak pricing estimates, we are simply tacking on historic mid-cycle and peak margins respectively to current pricing levels. The underlying theory behind this is that if at current ethylene prices of USD940/ton, for example, a marginal producer is making break-even economics, pricing needs to rise to USD1,166/ton (current price of USD940/ton plus a historic mid-cycle margin of USD226/ton) for that producer to make normal mid-cycle margins. Similarly, to attain peak margins, prices would need to rise to USD1,312/ton. This would imply that in an energy price environment like today's, ethylene prices could rise around 25% from current levels under mid-cycle conditions and 40% under peak conditions, and equivalently cash margins could rise by USD225/ton–USD375/ton depending on the phase of the cycle, all else being equal.

Commodity chemical prices and margins at different phases of industry cycle (USD/ton)

Products	High-cost producer margins			Price			
	Trough	Mid-cycle	Peak	Current price	Trough	Mid-cycle	Peak
Ammonia	0	115	220	465	465	580	685
EO/EG	0	125	393	1,030	1,030	1,155	1,423
Ethylene	0	226	372	940	940	1,166	1,312
Methanol	0	100	200	445	445	545	645
PE	0	430	586	1,185	1,185	1,615	1,780
PP	0	134	259	1,240	1,240	1,374	1,500
PVC	0	145	230	1,040	1,040	1,185	1,270
Urea	0	115	220	385	385	500	605

Source: CMAI, corporate reports, AlembicHC

Taking our mid-cycle and peak pricing and margin analysis to the next level, in the table on page 9 we provide product capacities and EBITDA generation potentials for the MENA petrochemical names under our coverage. In a similar analysis, using the mid-cycle and peak margins established earlier, as well as product margins and capacities by company, and 2010e consensus EBITDA estimates as a base, we attempt to evaluate what the mid-cycle and peak earnings potential for each company could be and what the EV/EBITDA for the companies looks like under each scenario. It is worth noting that we are using current EV for this analysis so are not taking into account the substantial sums of cash these companies could generate over the next few years and in turn inflating the EV/EBITDA multiple. The strong upside leverage and attractive valuation of most of the companies is quite evident. According to this analysis, companies under our coverage could experience around 50% EBITDA upside relative to 2010e EBITDA levels under mid-cycle conditions, and over 85% upside under peak conditions. It is also worth highlighting that the SABIC's upside could be greater since the analysis only takes into account certain products, from which the company generates around 80% of its earnings.

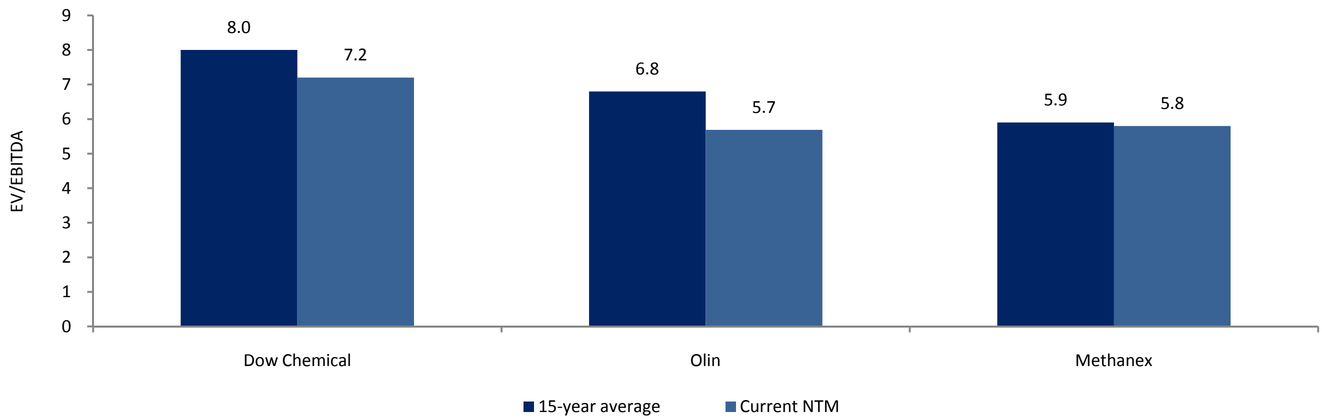
MENA chemical company mid-cycle and peak earnings power

Annual external sales volumes	Units	APC	IQ	SABIC	SAFCO	Yansab
Ammonia	m tons	0.00	0.35	0.35	0.77	0.00
EO/EG	m tons	0.00	0.00	2.99	0.00	0.77
Ethylene	m tons	0.00	0.19	0.92	0.00	0.00
Methanol	m tons	0.00	0.80	2.27	0.38	0.00
PE	m tons	0.00	0.69	5.19	0.00	0.80
PP	m tons	0.55	0.00	1.92	0.00	0.40
PVC	m tons	0.00	0.00	0.42	0.00	0.00
Urea	m tons	0.00	2.86	1.77	2.27	0.00
2010e EBITDA	QARm/SARm	560	6,000	47,441	2,634	3,365
2010e EV/EBITDA		8.6	12.9	8.7	14.3	12.0
Mid-cycle swing						
Ammonia	QARm/SARm	0	147	151	332	0
EO/EG	QARm/SARm	0	0	1,402	0	361
Ethylene	QARm/SARm	0	156	780	0	0
Methanol	QARm/SARm	0	291	851	141	0
PE	QARm/SARm	0	1,080	8,369	0	1,290
PP	QARm/SARm	276	0	965	0	201
PVC	QARm/SARm	0	0	226	0	0
Urea	QARm/SARm	0	1,197	763	979	0
Implied EBITDA	QARm/SARm	837	8,871	60,947	4,086	5,217
EV/EBITDA		5.8	8.7	6.8	9.2	7.7
Peak swing						
Ammonia	QARm/SARm	0	280	289	635	0
EO/EG	QARm/SARm	0	0	4,407	0	1,135
Ethylene	QARm/SARm	0	257	1,283	0	0
Methanol	QARm/SARm	0	582	1,703	282	0
PE	QARm/SARm	0	1,472	11,405	0	1,758
PP	QARm/SARm	534	0	1,865	0	389
PVC	QARm/SARm	0	0	358	0	0
Urea	QARm/SARm	0	2,290	1,460	1,873	0
Implied EBITDA	QARm/SARm	1,095	10,882	70,210	5,424	6,646
EV/EBITDA		4.4	7.1	5.9	7.0	6.1

Source: AlembicHC

On a valuation basis, the 2 things that stand out from this analysis are (1) regardless of the phase of the cycle, SABIC shares appear to be undervalued relative to its MENA peers and (2) APC shares seem undervalued relative to its MENA peers under mid-cycle and peak conditions. We believe SABIC shares are indeed undervalued and present a compelling buying opportunity at current levels. On the contrary, APC's valuation discount relative to peers is warranted, in our view. APC is a 1-plant and 1-product company. Such pure-play 1-product commodity chemical companies always tend to trade at valuation discounts to more diversified commodity chemical companies. As seen in the chart below, Olin, which is a pure-play chlor-alkali producer in the US, and Methanex, which is a pure-play methanol producer, currently and on average over the last 15 years have traded at a 15%–25% multiple discount relative to the more diversified Dow Chemical. In theory, APC should trade at a steeper discount relative to even these single-product companies, since APC only has 1 facility in operation versus several at Olin and Methanex, putting its profitability completely at the mercy of the proper functioning of that 1 facility, which is a higher risk in our view.

Diversified commodity chemical companies' EV/EBITDA multiples relative to pure plays



Source: Bloomberg, corporate reports, AlembicHC

Valuation

Our preferred methodology for valuing commodity chemical companies has been the normalized valuation framework. In our normalized valuation approach, we determine for each company under our coverage a mid-cycle, or "normalized," earnings estimate based on a historical trend line through 1 full commodity cycle. The implied growth rate of this earnings trend is the average return on capital for that company through the cycle.

This methodology, however, is not applicable to stocks for which we do not have a long enough earnings history or, as is the case with Saudi Kayan and Yansab, historical figures relating to individual product margins in the region. This makes it virtually impossible to do a bottom-up analysis of the normal earnings power of the company.

For such companies we either use a multiple-based valuation approach, assigning these companies average multiples in-line with their global peer group, or base valuation on a replacement value analysis.

Risks

The main risks to our above-consensus capacity utilization forecasts and bullish view of the commodity chemical cycle can be lumped into 3 main groups: (1) demand, (2) the Middle East, and (3) China.

Demand

Capacity is physical and easy to understand. Demand tends to be much harder to forecast and hence remains one of the main risks. Every positive and negative surprise in the industry over the last 25 years has come from demand. The 2 prior up-cycles were, for the most part, initiated by surges in demand associated with inventory builds in periods of strong economic and consumer spending growth. And the 2 subsequent downturns were initiated by inventory reductions, resulting in much weaker-than-expected demand.

Today, we are seeing some inventory build, but with energy prices relatively high, we could see energy prices coming down, resulting in a decrease in inventories in the near to medium term. A weak GDP-driven reduction in demand could also drive prices lower and result in lower-than-forecasted profitability.

Middle East

Improved political ties between Iran and the West could very well lead to the removal of sanctions and accelerated capacity builds in the country. This would slacken supply/demand relative to our base case assumptions.

China

Any GDP-driven deceleration in China would have a dire impact on global ethylene demand, resulting in lower-than-expected global capacity utilization.

Rating Scale

Recommendation	Potential Return
Overweight	Greater than 20%
Neutral	0% to 20%
Underweight	Less than 0%

Disclaimer

Disclosures

We, Hassan Ahmed and Lovetesh Singh, certify that the views expressed in this document accurately reflect our personal views about the subject securities and companies. We also certify that we do not hold a beneficial interest in the securities traded.

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