

PETROCHEMICAL TRACKER



OIL PUSHES PRICES FURTHER

Petrochemical stocks and product prices, continued to increase in November following the same trend seen in October. Oil, crossed the \$90/bbl mark after having crossed the \$80 mark in the previous month. Methanol, up 33%, was the highest gainer in its category since beginning 4Q10. Natural gas gained 35% during November on winter demand, reversing the 12% drop during October. Silver gained a strong 16% while Gold closed up only 2% for November.

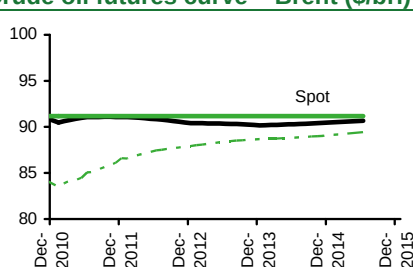
APPC announces that it will momentarily shut down operations to repair a pipeline which is expected to last for 8 days. **SABIC** has announced an increase in its monoethylene glycol (MEG) selling price by \$140 to a current \$1,116/mt. It also announced plans to close its Methyl tertiary butyl ether (MTBE) for 45 days starting end of December for routine maintenance. **Saudi Kayan**, starts trial operations at its Phenolics plant. **Sahara Petrochemical**, has received a loan of \$900mn from the Saudi Industrial Development Fund (SIDF) for the caustic soda and ethylene dichloride project. **Tasnee** is in negotiations with banks for financing its acrylic acid plant. **Petrorabigh** is in the process to start operations of its plant that shut down in October due to power cuts.

Key benchmark overview

Name	Latest	1M (%)	QTD (%)	YTD (%)
TASI	6457.2	1.6	1.0	5.5
TASI Petrochem	6484.4	8.8	15.0	20.2
Brent (\$/bbl)	91.2	10.1	12.5	17.1
Gold (\$/oz)	1386.0	2.0	5.8	26.8
Natural Gas (\$/MMBtu)	4.5	34.9	18.6	(24.8)
Ethylene	1140.0	12.3	0.9	1.3

Source: Bloomberg, NCBC Research

Crude oil futures curve – Brent (\$/bbl)



Source: Bloomberg, NCBC Research

Saudi equities – performance and valuation

Name	Rating	Target Price (SR)	Price chg (%)		Valuation		Div yld 10(%)
			1M	YTD	P/E-10E	P/BV	
Tasnee	Overweight	33.9	6.8	35.4	-	2	2
Sipchem	Overweight	27.4	5.7	16.1	0	1.9	3.6
YANSAB	Neutral	47.6	4.6	42.2	-	3.9	0
Sahara Petrochemical	Neutral	24.9	1.3	13.9	9.6	2.2	0
Saudi Kayan	Neutral	18.4	4.6	5.5	0	1.9	0
SAFCO	Neutral	122	-0.6	28.7	10.5	6.5	2.9
Petrochem	Neutral	15.3	-1	30.9	-	2.1	0
SABIC	NR	-	1.9	27.3	9.5	2.7	4
SIIG	NR	-	10.9	0.5	-	1.8	2.3
Chemanol	NR	-	7.4	4.2	11.9	1.4	0
Nama Chemicals	NR	-	4	-4.6	-	0.8	0
Alujain	NR	-	0.8	12.8	-	2.7	0
APPC	NR	-	4.1	12	-	2.4	5.4
PetroRabigh	NR	-	0	-35.6	0	2.6	0

Source: Bloomberg, NCBC Research

DECEMBER 2010

APPC announced a temporary shutdown of its operations on 30th of November to conduct important repairs on one of its pipelines. The company expected to complete this in 8 days however there has been no announcement of restarting yet. APPC, which produces 450k mtpa of polypropylene, had earlier this year closed down its plants for 3 weeks to carry out a scheduled maintenance. Furthermore, APPC is among the Saudi petrochemical companies that India had imposed 6.5%/mt anti-dumping duty on polypropylene products.

Saudi Kayan, on 5 December 2010 began trial operations of its Phenolics plant in Jubail. The plant includes 3 production units: Cumene Plant (290K mtpa), Phenol Plant (245k mtpa of Phenol and 150k mtpa of Acetone), and a Bisphenol-A (BPA) plant producing 270K mtpa of BPA.

Sahara Petrochemical has received a SR900mn loan from the Saudi Industrial Development Fund (SIDF) to finance the caustic soda and ethylene dichloride project in Jubail. The project is a 50% joint venture between Sahara Petrochemical Co and Saudi Arabian Mining Co (Maaden) and is announced to be operational by 4Q12. The plant will have a production capacity of 250k mtpa of concentrated caustic soda and 300k mtpa of ethylene dichloride.

Tasnee has began negotiating with different banks as it seeks financing for the SR4bn Acrylic Acid The project is owned 75% by the Saudi Acrylic Acid Company (Tasnee's subsidiary) and 25% by Dow Chemicals.

The plant will have an annual production capacity of 145,000 mtpa of acrylic acid, 145,000 mtpa of butyl acrylate and 85,000 mtpa of pure acrylic acid.

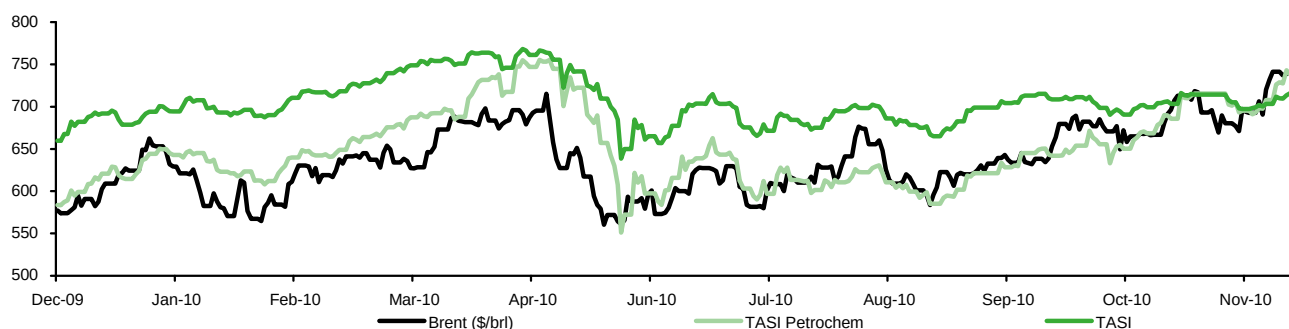
Petrorabigh has announced that they have resumed full operations at their petrochemical plants with the exception of two polyethylene plants and three furnaces in the ethane cracker. The company had previously shutdown the plants on the 25th of October due to power supply cuts. The company is working toward restarting the remaining plants and will announce the financial impact of the shutdown once all plants have restarted.

SABIC has announced an increase in its December Asia selling price of monoethylene glycol (MEG) by \$140/mt to a current price of \$1,116/mt. SABIC Americas signed a deal with Lummaus Technology to develop a paraxylene producing technology. Further news on SABIC is that the USD5.6bn joint venture between Ma'aden (70%) and SABIC (30%) is scheduled to commission in 2Q11 instead of the 4Q10. SABIC plans to shut down its MTBE plant in Jubail for 45 days starting end of December in order to conduct routine maintenance work.

Qatar Chemical Co. inaugurated its \$1.3bn petrochemicals plant (Q-Chem II plant) which will add 75% of output with the plant producing 700,000 mtpa of polyethylene and olefins. By 2014 Qatar wants to increase its production of petrochemicals to 28mn mtpa.

Exhibit 1: Index tracker

Index re-based to 1000 as of April 2007



Source: Bloomberg, NCBC Research

DECEMBER 2010

Spot vs. Futures

Reversing October's trend, natural gas prices increased sharply by 35% closing at \$4.5/mmBtu. This takes it down 25% YTD. It is normal to witness sharp rises in natural gas during the winter months as demand increases for heating. Oil continued to gain during the month and is up 10%. The outlook for natural gas and gold prices continues to remain positive as future contract prices are higher than spot prices (Exhibit 2). The futures curve for oil, however, now indicates a negative outlook from current levels. The natural gas futures curve for this month moved slightly lower than last month's. However, the oil futures curve moved slightly higher than last month's curve (Exhibit 3 & 4). The gold futures curve moved upward this month following last month's move. (Exhibit 5).

Exhibit 2: Commodity futures

	Spot (\$)	4Q10	1Q11	2Q11	3Q11	2010	2011E	2012E	2013E
WTI (\$/bbl)	Forecast	81	82	84	86	79	85	93	105.5
	Future	84.9	88.9	89.6	89.8	87.9	89.5	89.1	88.4
	87.8 Premium/Discount (%)	(3.3)	1.2	2.1	2.3	0.2	1.9	1.5	0.7
Brent (\$/bbl)	Forecast	83	85	85	86.5	79.7	86	91	93
	Future	86.7	90.8	91.1	91.1	90.5	91	90.7	90.3
	91.2 Premium/Discount (%)	(4.9)	(0.4)	(0.1)	(0.1)	(0.7)	(0.2)	(0.5)	(1.0)
Natural Gas Henry Hub (\$/MMBtu)	Forecast	4.6	4.9	4.7	5	4.6	5.1	5.5	6
	Future	4	4.4	4.5	4.6	4.4	4.6	5	5.3
	4.5 Premium/Discount (%)	(10.8)	(2.7)	(1.5)	1.3	(2.2)	2.2	10.6	16.6
Gold (\$/oz)	Forecast	1,350.0	1,380.0	1,387.5	1,450.0	1,223.0	1,363.0	1,300.0	1,150.0
	Future	1,367.7	1,385.7	1,388.5	1,392.3	1,384.3	1,390.6	1,407.7	1,442.2
	1,386.0 Premium/Discount (%)	(1.3)	0	0.2	0.5	(0.1)	0.3	1.6	4.1

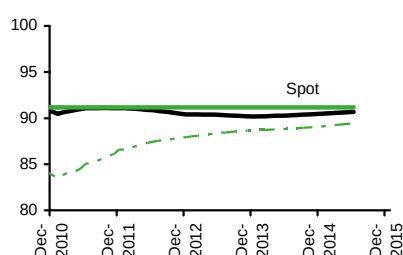
Source: Bloomberg, NCBC Research

Futures charts

To enable a comparative analysis of the futures curves, last month's data has been included as a dotted line. The black line represents this month's data and the straight line represents this month's spot price.

Exhibit 3: Crude oil

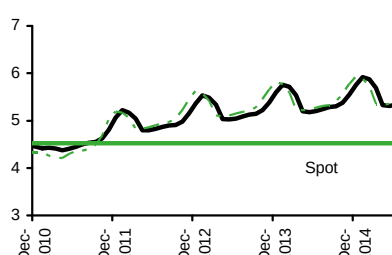
\$/bbl



Source: Bloomberg, NCBC Research

Exhibit 4: Natural gas

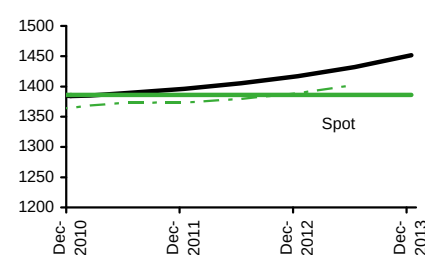
\$/MMBTU



Source: Bloomberg, NCBC Research

Exhibit 5: Gold

\$/troy ounce



Source: Bloomberg, NCBC Research

DECEMBER 2010

Relative performance

Propane continued its gains for a fifth consecutive month and, was up a further 18.4% during November. Propane had gained 12.2% during October. Ethylene gained 12% after having declined 7.1% during October. Most fertilizers continued their increase apart from DAP and Ammonia which declined 1% and 4% respectively. Gold continued its upward movement as it gained 2% during the month.

Exhibit 6: Oil and Gas

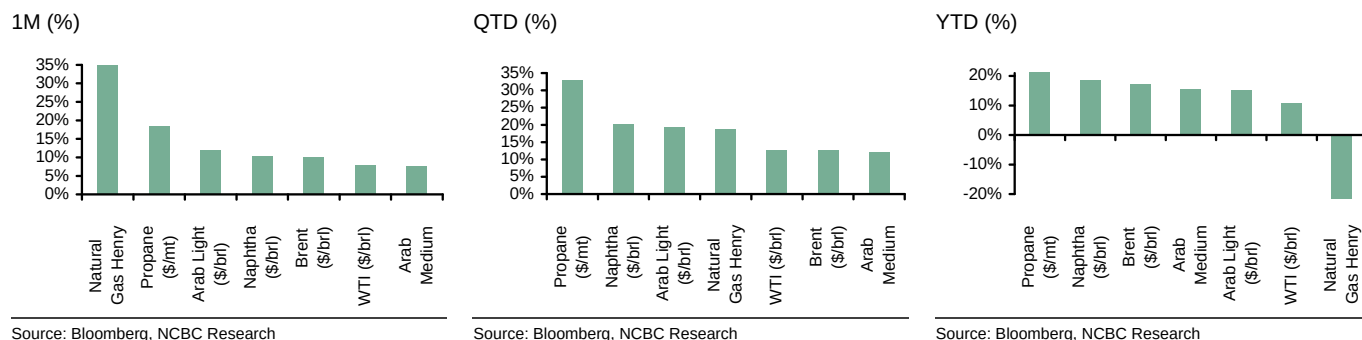


Exhibit 7: Petrochemicals

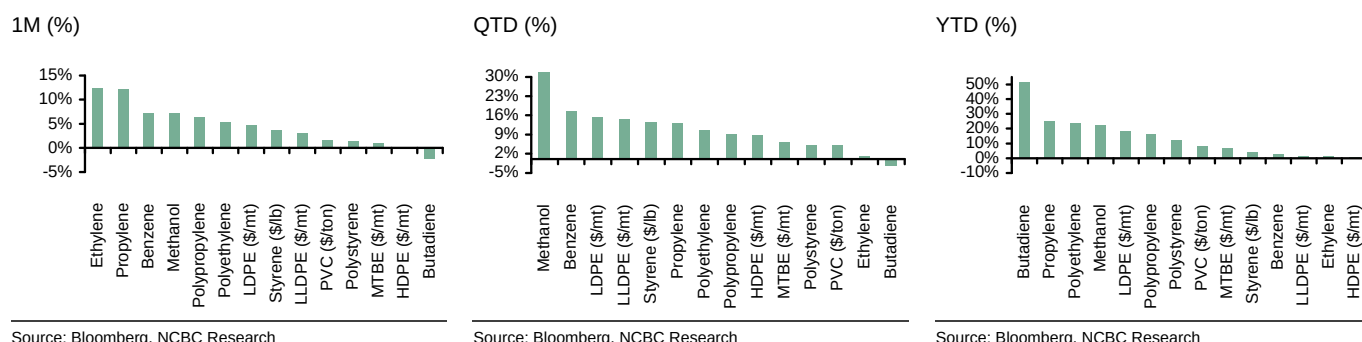


Exhibit 8: Fertilizers

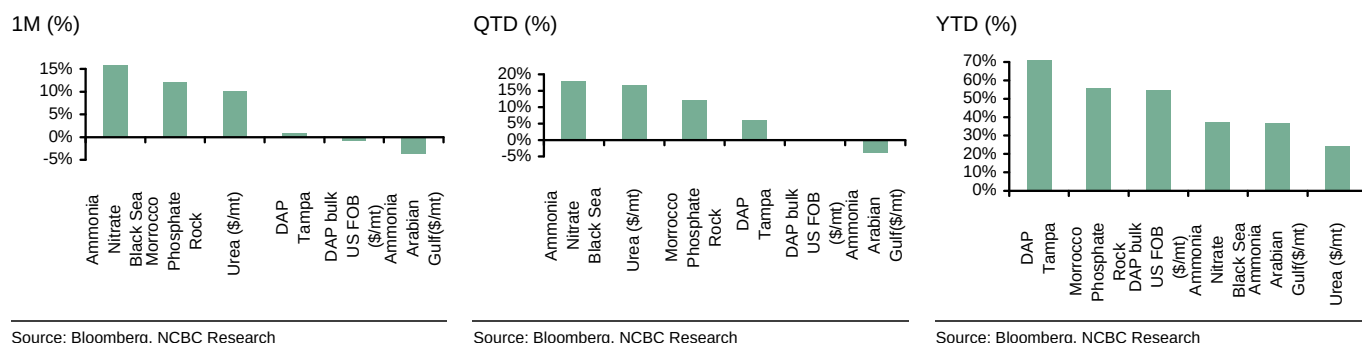
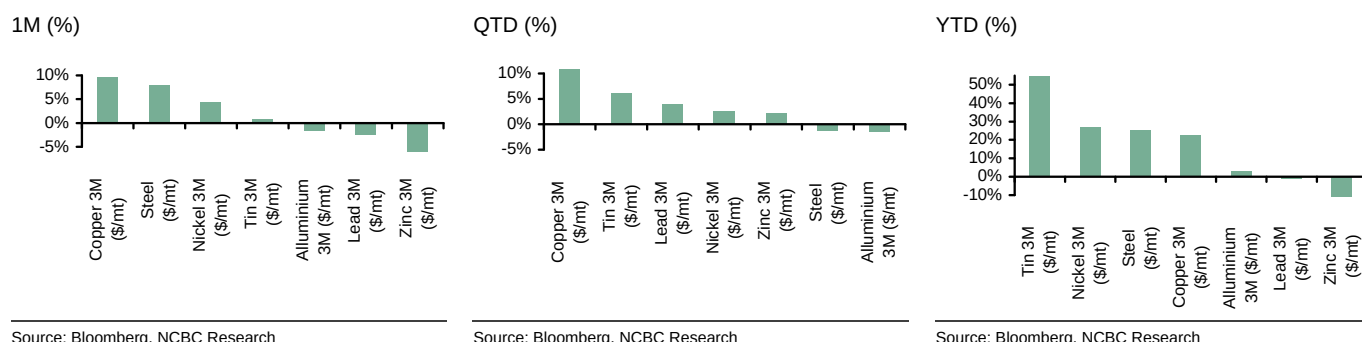


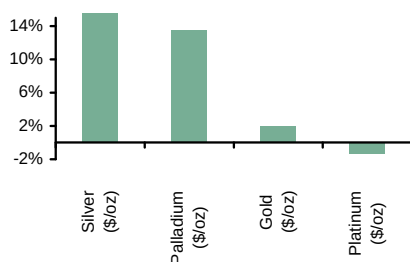
Exhibit 9: Base metals



DECEMBER 2010

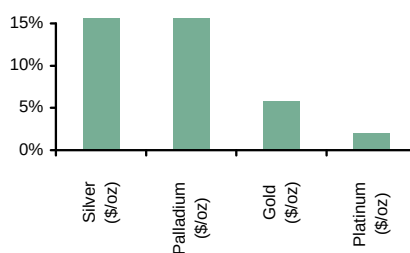
Exhibit 10: Precious metals

1M (%)



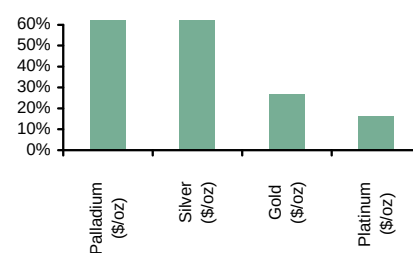
Source: Bloomberg, NCBC Research

QTD (%)



Source: Bloomberg, NCBC Research

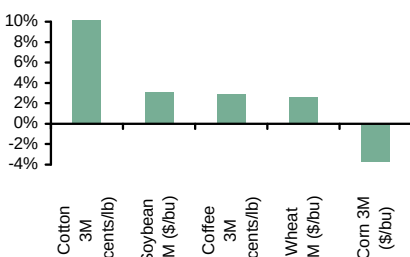
YTD (%)



Source: Bloomberg, NCBC Research

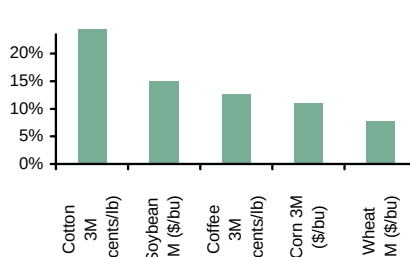
Exhibit 11: Agriculture products

1M (%)



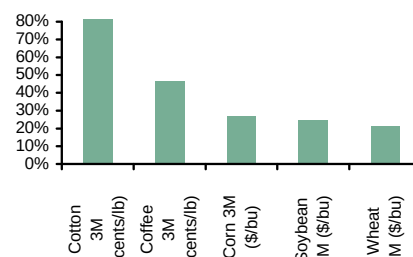
Source: Bloomberg, NCBC Research

QTD (%)



Source: Bloomberg, NCBC Research

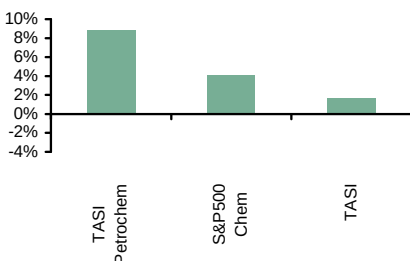
YTD (%)



Source: Bloomberg, NCBC Research

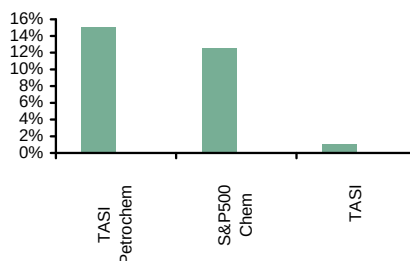
Exhibit 12: Indices

1M (%)



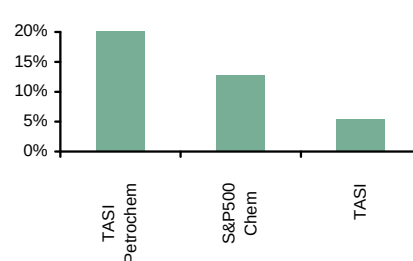
Source: Bloomberg, NCBC Research

QTD (%)



Source: Bloomberg, NCBC Research

YTD (%)



Source: Bloomberg, NCBC Research

DECEMBER 2010

Performance and valuation

All Saudi petrochemical stocks went up in November with the exception of SAFCO and Petrochem. SIIG was the lead gainer with a rise of 10.9%. Petrochem closed 1.0% lower during the month. We downgraded our rating on Yansab to Neutral with a revised price target of SR47.6 on 11 December 2010. Our ratings and price targets have been added to the table below. On the global front, all petrochemical players ended in strong gains during November with Sumitomo having the highest gains of 12.1%.

Exhibit 13: Industry – performance and valuation

Exhibit 15: Industry – performance and valuation												
Name	Rating	Target price (SR)	Last traded price (LC)	Mkt cap (SR mn)	Price chg (%)		TTM (%)		Valuation (x)			Div yld 10(%)
					1M	YTD	ROE	ROA	P/E-TTM	P/E-10E	PBV	
Saudi Arabia												
Tasnee	Overweight	33.9	34.6	17,534	6.8	35.4	6.9	1.6	22.3	-	2	2
Sipchem	Overweight	27.4	27.7	9,233	5.7	16.1	2.8	1.2	29.8	0	1.9	3.6
YANSAB	Neutral	47.6	47.5	26,719	4.6	42.2	(0.5)	(0.1)	24.1	-	3.9	0
Sahara	Neutral	24.9	24.1	7,050	1.3	13.9	3.3	1.5	20.8	9.6	2.2	0
Saudi Kayan	Neutral	18.4	19.2	28,800	4.6	5.5	(0.1)	(0.1)	-	0	1.9	0
SAFCO	Neutral	122	155.8	38,938	(0.6)	28.7	24	19.3	15	10.5	6.5	2.9
Petrochem	Neutral	15.3	20.4	9,768	(1.0)	30.9	(1.7)	(0.7)	-	-	2.1	0
SABIC	NR	-	105	315,000	1.9	27.3	8.6	3.2	15.5	9.5	2.7	4
SIIG	NR	-	21.9	9,833	10.9	0.5	5.7	2.2	27.3	-	1.8	2.3
Chemanol	NR	-	16.1	1,936	7.4	4.2	1.6	0.8	87.8	11.9	1.4	0
Nama Chemicals	NR	-	10.3	1,324	4	(4.6)	(1.5)	(1.0)	67.7	-	0.8	0
Alujain	NR	-	19.4	1,339	0.8	12.8	(5.3)	(0.8)	266.7	-	2.7	0
APPC	NR	-	27.9	3,944	4.1	12	7.7	3.7	31	-	2.4	5.4
PetroRabigh	NR	-	22.9	20,017	0	(35.6)	(16.8)	(2.9)	-	0	2.6	0
Global												
BASF SE	Germany		60.3	274,466	6.4	38.6	8	2.8	14.1	0	2.9	2.8
Dow Chemicals	US		133.9	148,308	7.1	17.4	2.2	0.6	19.8	0	2.2	1.8
Industries Qatar	Qatar		133.9	75,848	4.2	17.4	26.2	17.9	14.4	0	3.7	3.7
Sumitomo	Japan		388	28,695	12.1	(4.2)	2.6	0.7	30.9	0	1.2	2.3
Eastman	US		81.2	21,957	2.4	34.7	8.9	2.5	11.7	0	3.2	2.3

Source: Bloomberg, NCBC Research
LC = Local currency

DECEMBER 2010

Product portfolio and capacities

The following section outlines product portfolios of listed petrochemical companies in the Kingdom. The planned commissioning dates are based on available information or discussions with the management. We have displayed the respective changes in commodity prices to indicate the potential impact on producers or on plants yet to go on-stream.

Exhibit 14: Portfolio product and capacities

Company	Product	Capacity (mn mt)	Planned Commissioning of Capacity	Price MoM (%)	Price YTD (%)
SABIC (Saudi Basic Industries Corporation)					
	Ethylene	7.185	on-stream	12.3	1.3
	Methanol	4.129	on-stream	7.0	22.6
	Gases	4.100	on-stream		
	Polyethylene	4.095	on-stream	5.4	23.5
	Monoethylene Glycol (MEG)	3.505	on-stream		
	Methyl Tertiary Butyl Ether (MTBE)	3.308	on-stream	0.9	6.3
	Urea	3.105	on-stream	10.0	24.2
	Long Steel	2.702	on-stream		
	Ammonia	2.451	on-stream	(3.7)	36.7
	Flat Steel	1.154	on-stream		
	Styrene	1.074	on-stream	3.6	4.1
	Propylene	0.870	on-stream	12.0	24.7
	Ethylene Dichloride (EDC)	0.827	on-stream		
	Polypropylene	0.774	on-stream	6.3	16.2
	Caustic Soda (NaOH)	0.632	on-stream		
	Vinyl Chloride Monomer (VCM)	0.434	on-stream		
	Polyvinyl Chloride (PVC)	0.415	on-stream	1.5	7.9
	Benzene	0.374	on-stream	7.1	2.9
	Di Ethylene Glycol (DEG)	0.332	on-stream		
	Purified Terephthalic Acid (PTA)	0.298	on-stream		
	Phosphate, compound and liquid	0.256	on-stream		
	Paraxylene	0.252	on-stream		
	Polystyrene (PS)	0.174	on-stream	1.4	12.0
	2-Ethylene Hexanol (2EH)	0.166	on-stream		
	Butene	0.151	on-stream		
	Butadiene	0.121	on-stream	(2.3)	51.7
	Pyrolysis Gasoline	0.117	on-stream		
	Sulphuric Acid	0.097	on-stream		
	Polyethylene Terephthalate (PET) Resin	0.079	on-stream		
	CIE (crude industrial ethanol)	0.070	on-stream		
	Textile Chips	0.051	on-stream		
	Dioctyle Phthalate (DOP)	0.029	on-stream		
	Melamine	0.021	on-stream		
	Tri Ethylene Glycol (TEG)	0.018	on-stream		
	Urea Formaldehyde	0.013	on-stream		
	Polyester Fibres	0.008	on-stream		
	LDPE	0.400	on-stream	4.7	18.6
	Methyl methacrylate	0.250	2013		
	Polymethyl methacrylate	0.030	2013		
PetroRabigh (Rabigh Refining and Petrochemical Company)					
	Petroleum Products	17.300	on-stream		
	Ethylene	1.250	on-stream	12.3	1.3
	Propylene	0.900	on-stream	12.0	24.7
	LDPE	0.350	on-stream	4.7	18.6
	LLDPE	0.250	on-stream	3.0	1.5
	HDPE	0.300	on-stream	0.0	0.4
	Mono Ethylene Glycol	0.600	on-stream		
	Polypropylene	0.700	on-stream	6.3	16.2
	Polypropylene Oxide	0.200	on-stream		

DECEMBER 2010

Exhibit 14: Portfolio product and capacities

Company	Product	Capacity (mn mt)	Planned Commissioning of Capacity	Price MoM (%)	Price YTD (%)
SAFCO (Saudi Arabian Fertilizer Company)					
	Urea	2.270	on-stream	10.0	24.2
	Ammonia	2.098	on-stream	(3.7)	36.7
	Sulphuric Acid	0.130	on-stream		
Saudi Kayan (Saudi Kayan Petrochemical Company)					
	Ethylene	1.478	3Q-10	12.3	1.3
	Propylene	0.630	3Q-10	12.0	24.7
	LDPE	0.300	2011	4.7	18.6
	HDPE	0.400	3Q-10	5.4	23.5
	Ethylene Glycols	0.537	3Q-10		
	Polypropylene	0.350	3Q-10	6.3	16.2
	Polycarbonate	0.260	3Q-10		
	Acetone	0.133	3Q-10		
	Benzene	0.109	3Q-10	7.1	2.9
	Ethanolamines	0.100	2011		
	Bisphenol A	0.240	3Q-10		
	Dimethyl Formamide	0.050	3Q-10		
	Ethoxylates	0.040	3Q-10		
	Choline Chloride	0.020	3Q-10		
	Cumene	0.325	3Q-10		
	Ethylene oxide	0.550	3Q-10		
	Ethylamines	0.135	2011		
Yansab (Yanbu National Petrochemicals Company)					
	Ethylene	1.300	on-stream	12.3	1.3
	Propylene	0.400	on-stream	12.0	24.7
	Mono Ethylene Glycol (MEG)	0.700	on-stream		
	Di Ethylene Glycol (DEG)	0.065	on-stream		
	Tri Ethylene Glycol (TEG)	0.005	on-stream		
	Polypropylene	0.400	on-stream	6.3	16.2
	HDPE	0.400	on-stream	0.0	0.4
	LDPE	0.400	on-stream	4.7	18.6
	Benzene	0.170	on-stream	7.1	2.9
	Butene	0.115	on-stream		
	Benzene-Toulene and Xylene (BTX)	0.070	on-stream		
	Methyl Tertiary Butyl Ether (MTBE)	0.020	on-stream	0.9	6.3
Sipchem (Saudi International Petrochemical Company)					
	Methanol	1.000	on-stream	7.0	22.6
	Carbon Monoxide	0.345	on-stream		
	Butanediol	0.075	on-stream		
	Acetic Acid	0.460	on-stream		
	Vinyl Acetate Monomer (VAM)	0.300	on-stream		
	Ethylene Vinyl Acetate	0.200	2H-13		
	Polyvinyl Acetate	0.125	2H-13		
SIIG (Saudi Industrial Investment Group)					
	Styrene	0.750	on-stream	3.6	4.1
	Propylene	0.145	on-stream	12.0	24.7
	Ethylene	1.165	3Q-11	12.3	1.3
	HDPE/LLDPE	1.100	3Q-11	0.0	0.4
	Propylene	0.445	3Q-11	12.0	24.7
	Polypropylene	0.400	3Q-11	6.3	16.2
	Polystyrene	0.200	3Q-11	1.4	12.0
	1-Hexene	0.100	3Q-11		
Tasnee (Tasnee and Sahara Olefins Company)					
	Ethylene	1.000	on-stream	12.3	1.3
	Titanium Dioxide	0.790	on-stream		
	Polypropylene	0.450	on-stream	6.3	16.2
	HDPE	0.400	on-stream	0.0	0.4
	LDPE	0.400	on-stream	4.7	18.6
	Propylene	0.285	on-stream	12.0	24.7

DECEMBER 2010

Exhibit 14: Portfolio product and capacities

Company	Product	Capacity (mn mt)	Planned Commissioning of Capacity	Price MoM (%)	Price YTD (%)
Sahara Petrochemicals (Sahara Petrochemical Company)					
	Ethylene	1.000	on-stream	12.3	1.3
	Polyethylene	0.800	on-stream	5.4	23.5
	Propylene	0.460	on-stream	12.0	24.7
	Polypropylene	0.450	on-stream	6.3	16.2
	Caustic Soda	0.250	2Q-11		
	Ethylene Dichloride (EDC)	0.245	2Q-11		
APPC (Advanced Petrochemicals Company)					
	Propylene	0.455	on-stream	12.0	24.7
	Polypropylene	0.450	on-stream	6.3	16.2
Chemanol (Methanol Chemicals Company)					
	Methanol	0.231	on-stream	7.0	22.6
	Pentaerythritol	0.020	on-stream		
	Dimethylformaldehyde (DMF)	0.060	on-stream		
	Methylamines	0.050	2010		
	Carbon Monoxide	0.033	2010		
	Acetaldehyde	0.012	2010		
	Formaldehyde	0.215	2010		
	Paraformaldehyde	0.014	2010		
	Resins	0.014	2010		
	Hexamine	0.011	2010		
Alujain (Alujain Corporation)					
	Polypropylene	0.400	on-stream	6.3	16.2
Nama Chemicals					
	Epoxy resins	0.060	4Q-11		

Source: Company, NCBC Research

DECEMBER 2010

Appendix

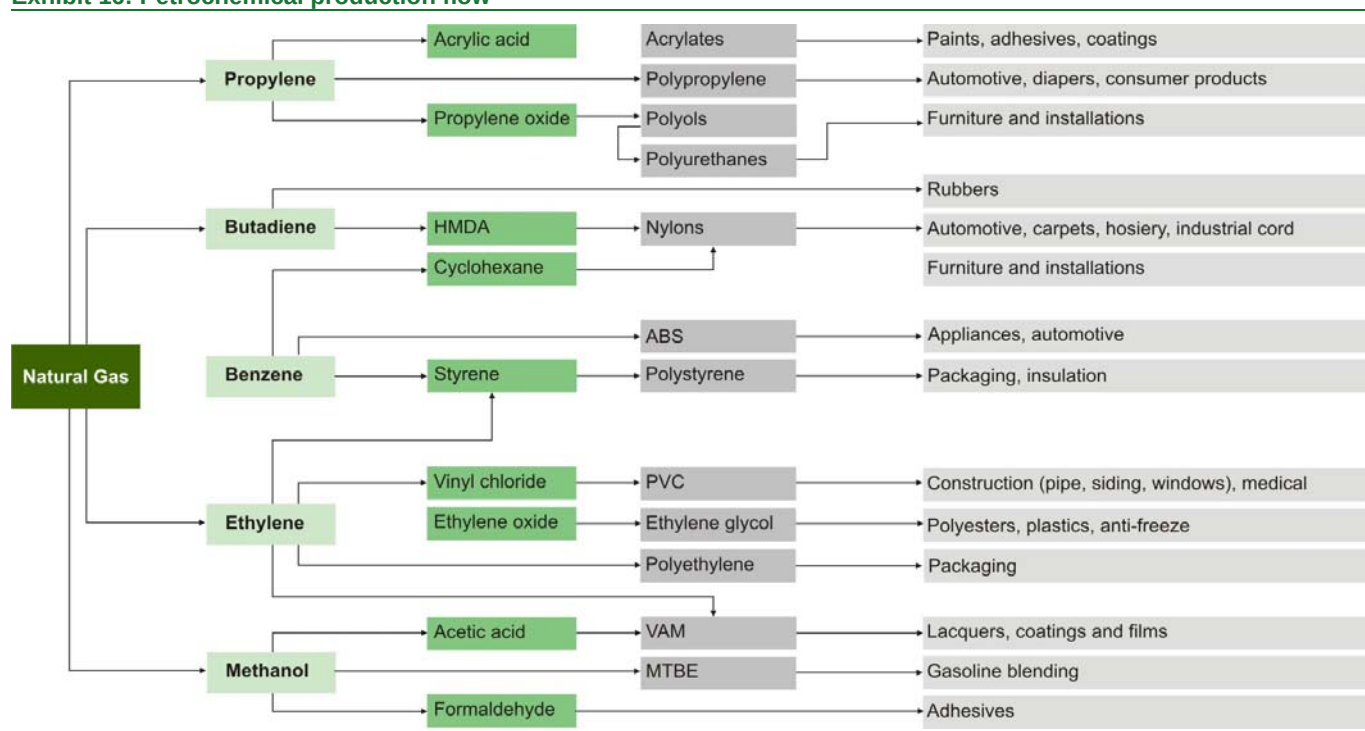
Exhibit 15: Commodity wrap-up

Name	Latest	1 wk (%)	1M (%)	QTD (%)	YTD (%)	TTM (%)	5yr high	5yr low
Oil and Gas								
WTI (\$/bbl)	87.8	(1.6)	7.8	12.8	10.7	25.6	145.3	31.4
Brent (\$/bbl)	91.2	(1.0)	10.1	12.5	17.1	27.9	145.9	33.8
Arab Light (\$/bbl)	89.3	1.2	11.9	19.2	15.1	21.9	143.0	32.7
Arab Medium (\$/bbl)	86.4	(1.5)	7.7	12.1	15.5	29.5	137.6	30.5
Natural Gas Henry Hub (\$/MMBtu)	4.5	5.9	34.9	18.6	(24.8)	(10.0)	15.4	1.9
Naphtha (\$/bbl)	92.6	1.5	10.2	20.1	18.6	24.6	135.5	25.3
Propane (\$/mt)	897.0	(1.8)	18.4	32.9	21.1	30.0	995.0	320.5
Liquid Nitrogen	109.0	-	-	-	(0.2)	(0.2)	134.4	109.0
Petrochemicals								
Methanol CFR China (\$/ton)	380.0	-	7.0	33.3	22.6	24.6	580.0	165.0
MTBE (\$/mt)	890.0	(3.3)	0.9	6.1	6.3	17.6	1,360.0	439.0
Benzene (\$/gallon)	360.5	5.9	7.1	17.2	2.9	22.2	457.5	82.5
Ethylene (\$/mt)	1,140.0	-	12.3	0.9	1.3	1.3	1,670.0	330.0
Polystyrene (\$/mt)	1,465.0	(1.5)	1.4	5.2	12.0	12.0	2,137.5	837.5
Polyethylene (\$/mt)	1,322.5	-	5.4	10.4	23.5	24.2	1,887.5	612.5
Polypropylene (\$/mt)	1,305.0	-	6.3	9.0	16.2	15.9	2,162.5	587.5
Propylene (\$/lb)	60.5	12.0	12.0	13.1	24.7	25.4	82.5	14.5
PVC (\$/ton)	1,025.0	-	1.5	5.1	7.9	11.4	1,325.0	580.0
Butadiene (\$/lb)	84.5	-	(2.3)	(2.3)	51.7	57.6	142.5	14.5
Styrene (\$/lb)	57.5	1.8	3.6	13.3	4.1	12.5	82.5	22.5
LDPE (\$/mt)	1,660.0	-	4.7	15.3	18.6	23.0	1,950.0	810.0
LLDPE (\$/mt)	1,355.0	-	3.0	14.3	1.5	4.6	1,860.0	710.0
HDPE (\$/mt)	1,265.0	-	-	8.6	0.4	1.6	1,830.0	750.0
Fertilizers								
Ammonia Arabian Gulf (\$/mt)	395.0	-	(3.7)	(3.7)	36.7	36.2	860.0	120.0
Ammonia Nitrate Black Sea (\$/mt)	295.0	-	15.7	18.0	37.2	40.5	815.0	217.0
DAP Tampa	577.5	(0.9)	0.9	6.0	71.1	n/a	1,220.0	265.0
DAP bulk US FOB (\$/mt)	570.0	-	(0.9)	-	54.5	65.2	1,225.0	250.0
Urea (\$/mt)	385.0	-	10.0	16.7	24.2	28.3	815.0	217.0
Morocco Phosphate Rock	333.3	-	12.0	12.0	55.6	55.6	1,023.8	100.0
Base Metals								
Steel (\$/mt)	617.5	-	7.9	(1.2)	25.4	30.0	1,530.0	393.8
Aluminium 3M (\$/mt)	2,308.0	(0.5)	(1.5)	(1.4)	2.9	1.5	3,317.0	1,288.0
Copper 3M (\$/mt)	8,990.0	3.0	9.6	11.5	22.6	31.5	9,015.0	2,845.0
Lead 3M (\$/mt)	2,390.0	2.1	(2.4)	3.9	(0.9)	3.9	3,890.0	850.0
Nickel 3M (\$/mt)	23,980.0	2.0	4.3	2.7	26.9	44.4	51,600.0	9,050.0
Tin 3M (\$/mt)	25,800.0	1.0	0.8	6.1	54.5	69.7	27,350.0	6,000.0
Zinc 3M (\$/mt)	2,274.0	2.5	(6.1)	2.2	(11.0)	(1.0)	4,515.0	1,065.0
Precious metals								
Gold (\$/oz)	1,386.0	(2.0)	2.0	5.8	26.8	24.3	1,423.8	460.8
Silver (\$/oz)	28.7	(2.5)	15.9	30.8	70.6	67.0	30.1	7.6
Platinum (\$/oz)	1,681.8	(2.7)	(1.4)	2.0	16.3	17.7	2,250.5	771.0
Palladium (\$/oz)	735.5	(4.3)	13.5	29.2	86.7	102.2	768.5	164.5
Agricultural products								
Corn 3M (\$/bu)	560.3	0.2	(3.7)	10.9	26.8	27.8	695.0	344.0
Soybean 3M (\$/bu)	1,263.0	-	3.0	14.9	24.4	24.1	1,555.5	812.0
Wheat 3M (\$/bu)	735.5	(0.3)	2.5	7.6	21.2	22.9	1,030.0	475.0
Cotton 3M (cents/lb)	138.0	(3.0)	10.2	36.3	81.4	80.5	151.2	53.5
Coffee 3M (cents/lb)	209.4	2.4	2.9	12.7	46.3	40.6	217.1	123.3
Indicies								
TASI Petrochem	6,484.4	4.3	8.8	15.0	20.2	26.5	10,675.0	2,600.0
TASI	6,457.2	1.8	1.6	1.0	5.5	8.4	20,634.9	4,130.0
S&P500 Chem	297.2	-	-	-	-	-	348.5	153.6

Source: NCBC Research

*Please note that YTD calculation uses 31 January 2010 prices

DECEMBER 2010

Exhibit 16: Petrochemical production flow


Source: NCBC Research

DECEMBER 2010

Glossary - Industry

AA (Acetic Acid)	An organic intermediate used in the preparation of metal acetates that are used in printing processes, Acetates including vinyl acetate and acetic anhydride)
AAC	Arabian Amines Company
ABS	Acrylonitrile-Butadiene-Styrene Terpolymer, has a glossy surface and is an engineering plastic with thermal, chemical and impact resistance
Acrylic Acid	Acrylic acid, along with the basic alkyl esters (methyl, ethyl and butyl esters). An important monomer for manufacturing of adhesives, detergents, varnishes, and plastics
Adhesives	A sticky substance used to bond two solids
Aromatics	An organic compound containing a hexagonal ring of carbon atoms (eg. Benzene)
Base Chemical	A chemical building block early in the supply chain from which downstream products are produced (eg. Ethylene and Benzene)
Benzene	A colorless liquid which occurs naturally in fossil raw materials such as crude oil and coal. Among the most important feedstock for the chemical industry and is not used directly by end consumers
Bn	Billion
Borouge	Abu Dhabi Polymers Company
Brl	Barrel
Bu	Bushel
CO2	Carbon Dioxide
Commodity Chemicals	Chemicals that are mostly sold in bulk and generally at lower margins relative to more downstream products. Market share, economies of scale, feedstock cost can lead to competitive advantage
Crackers	This is the name given to the production facilities that manufacture vast volumes of petrochemicals from oil or gas feedstock
Cracking	A process when long chains of organic molecules are split into small ones (i.e. naphtha into ethylene)
DAP	Di-Ammonia Phosphate
Derivative	A chemical compound derived (made) from other chemicals. Polystyrene is a derivative of styrene
De-Stocking	The sellers of the products are reducing their inventory levels
DETA	Di-Ethylenetriamine
DME	Di-methyl Ether
Downstream Activities	Processing of hydrocarbons like oil and natural gas into compounds that can be used in usable products
EDA	Ethylene Di-Amine
EDC	Ethylene Di-Chloride
EG (Ethylene Glycol)	A colorless, oily, odorless, toxic liquid. Commercially produced from ethylene oxide. Used widely as an anti-freeze in automobile cooling systems and in the manufacturing of man-made fibers and brake fluids
EO (Ethylene oxide)	An industrial chemical primarily used in sterilizing medical equipment. In its pure form it is a colorless gas
EO/EG	Ethylene Oxide/Ethylene Glycol
Eols	Expressions of Interest
EPC	Engineering, Procurement and Construction
EPCM	Engineering, Procurement and Construction Management
Ethane	The second most important constituent of natural gas, a major raw material for the production of polyethylene plastic, ethylene glycol and ethyl alcohol
FEED	Front-end Engineering and Design
Fertil	Ruwais Fertilizer Company
GTO	Gas-to-Olefins
HDPE (High Density Polyethylene)	A thermoplastic resin made from ethylene. It is mostly used in the manufacturing of grocery bags and milk jugs
HoA	Heads of Agreement
Hol	House of Invention
Hydrocarbon	These are compounds that contain only hydrogen and carbon atoms. They are the basic materials in oil, gas and the chemical industries
In-organic chemicals	Inorganic chemicals are all substances encompassing the other 91 naturally occurring elements as well as those that contain carbon that doesn't covalently bonded to itself or hydrogen. Inorganic chemicals are used in agriculture and also as pigments, coatings, additives etc
ITB	invitation to bid
Ib	Pound
LDPE (Low Density Polyethylene)	Similar to HDPE, it is a thermoplastic resin made from ethylene. It is mostly used in the manufacturing of food packaging and coatings.
LLDPE (Linear Low Density Polyethylene)	A thermoplastic resin made from ethylene. It is mostly used in the manufacturing of shrink wrap and packaging
LoI	Letter of Intent
LPG (Liquefied petroleum gas)	Obtained from the fractional distillation of crude oil, it is a primary feedstock for a cracker
LSTK	Lump-sum turnkey
LTP	Last traded price
Maaden	Saudi Arabian Mining Company
MDI	Methylene Di-Phenyl Di-Isocyanate
MEG (Mono Ethylene Glycol)	see Ethylene Glycol
Methanol	The simplest form of alcohol, used as a feedstock for many downstream products including formaldehyde, MTBE and acetic acid
mt	Metric tons
Mm BTU	One million British Thermal Units

DECEMBER 2010

Monomer	A base unit in a polymer. Ethylene is a monomer, which among other polymers, goes into polyethylene
MoU	Memorandum of Understanding
MTBE (Methyl tertiary butyl ether)	Is a gasoline additive, used as an oxygenate in fuels to reduce vehicle exhaust emissions
Naphtha	This is an important primary feedstock and is obtained by fractional distillation of crude oil
Natural Gas	Along with crude oil and naphtha, natural gas is the pillar stone of the chemical industry. It is a colorless and highly flammable gas. Primarily consisting of methane, ethane and small amounts of propane. Ethane and propane, also known as Natural Gas Liquids, are converted into ethylene and propylene by steam cracking
NCP	National Chevron Phillips Company
O&U	Off sites and Utilities
OCU	Olefins Conversion Unit
Olefin	A product with a straight chain of hydrocarbons that may have one or more double bonds conferring reactivity
OPIC	Oman Petrochemical Industries Company
Organic chemicals	Organic chemicals relate to compounds containing carbon and are mostly produced from fossil fuels. These chemicals produced from oil, gas and coal are by far the most significant to the chemical industry as they form the feedstock of upstream products like ethylene, propylene and benzene towards downstream compounds such as paints and plastics
Oxidation	A form of reaction when electrons are removed from a molecule, or where oxygen atoms are added to a molecule
Oz	Ounce
PDH	Propane Dehydrogenation
PE (Polyethylene)	A polymer of ethylene and is used in the production of packaging and insulation
Petrochemical	Any chemical derived from crude oil or natural gas
Petrokemya	Arabian Petrochemical Company
PMC	Project Management Consultancy
PMS	Project Management Services
Polymer	A hydrocarbon chain made by the repetition monomers. Polyethylene is a polymer made by ethylene as a repetitive unit, or monomer
Polystyrene	A solid plastic produced from polymerized styrene. It has many everyday uses including coffee cups and CD jewel boxes
PP	Polypropylene
Propylene	Also known as Propene, is a flammable colorless gas. It is used in manufacturing of resins, fibers and plastics
Propylene Oxide	Used as a monomer in polymer production and as a chemical intermediate in the manufacturing of polyurethane foam
PVC	Polyvinyl Chloride
PVC (Polyvinyl Chloride)	A polymer of vinyl chloride and used to make a variety of cost-effective products. PVC products include medical tubing, blood bags, footwear, electrical cables, stationary and toys
QAFCO	Qatar Fertilizer Company
QAPCO	Qatar Petrochemical Company
QP	Qatar Petroleum
Styrene	A clear, colorless liquid which is a derivative of natural gas by-products. Styrene can also be extracted naturally from the sap of styrax trees. It is generally used to create plastic materials for a wide range of strong, flexible and lightweight products. (eg. food containers, cars and computers)
t/d	tons a day
t/y	tons a year
TDI	Toluene Di-Isocyanate
TEPA	Tetraethylenepentamine
TETA	Tri-Ethylenetetramine
(VAM) Vinyl Acetate Monomer	A colorless and liquid organic chemical used in the production of plastics
(VCM) Vinyl Chloride Monomer	A colorless and flammable gas primarily used in the production of polyvinyl chloride; it finds use in the construction (windows, pipe and siding) and medical industries

Source: Company, NCBC Research

Other

Chg	Change	P/E	Price to earnings
Div yld	Dividend yield	QoQ	Quarter on quarter
EBITDA	Earnings before interest, tax, depreciation, and amortization	QTD	Quarter to date
EV	Enterprise value	RoA	Return on assets
M-Cap	Market capitalization	RoE	Return on equity
MoM	Month on month	SR	Saudi Riyal
na	Not Available	YoY	Year on year
nm	Not meaningful	YTD	Year to date
P/BV	Price to book value	1M	1 Month (Last 30 days)

DECEMBER 2010

Kindly send all mailing list requests to research@ncbc.com

Head of Research

Eiji Aono
e.aono@ncbc.com
+966 2690 7786

Brokerage website

www.alahlitadawul.com
www.alahlibrokerage.com

Corporate website

www.ncbc.com

NCBC Investment Ratings

OVERWEIGHT:	Target price represents expected returns in excess of 15% in the next 12 months
NEUTRAL:	Target price represents expected returns between -10% and +15% in the next 12 months
UNDERWEIGHT:	Target price represents a fall in share price exceeding 10% in the next 12 months
PRICE TARGET:	Analysts set share price targets for individual companies based on a 12 month horizon. These share price targets are subject to a range of company specific and market risks. Target prices are based on a methodology chosen by the analyst as the best predictor of the share price over the 12 month horizon

Other Definitions

NR: Not Rated. The investment rating has been suspended temporarily. Such suspension is in compliance with applicable regulations and/or in circumstances when NCB Capital is acting in an advisory capacity in a merger or strategic transaction involving the company and in certain other situations

CS: Coverage Suspended. NCBC has suspended coverage of this company

NC: Not covered. NCBC does not cover this company

Important information

The authors of this document hereby certify that the views expressed in this document accurately reflect their personal views regarding the securities and companies that are the subject of this document. The authors also certify that neither they nor their respective spouses or dependants (if relevant) hold a beneficial interest in the securities that are the subject of this document. Funds managed by NCB Capital and its subsidiaries for third parties may own the securities that are the subject of this document. NCB Capital or its subsidiaries may own securities in one or more of the aforementioned companies, or funds or in funds managed by third parties. The authors of this document may own securities in funds open to the public that invest in the securities mentioned in this document as part of a diversified portfolio over which they have no discretion. The Investment Banking division of NCB Capital may be in the process of soliciting or executing fee earning mandates for companies that are either the subject of this document or are mentioned in this document.

This document is issued to the person to whom NCB Capital has issued it. This document is intended for general information purposes only, and may not be reproduced or redistributed to any other person. This document is not intended as an offer or solicitation with respect to the purchase or sale of any security. This document is not intended to take into account any investment suitability needs of the recipient. In particular, this document is not customized to the specific investment objectives, financial situation, risk appetite or other needs of any person who may receive this document. NCB Capital strongly advises every potential investor to seek professional legal, accounting and financial guidance when determining whether an investment in a security is appropriate to his or her needs. Any investment recommendations contained in this document take into account both risk and expected return. Information and opinions contained in this document have been compiled or arrived at by NCB Capital from sources believed to be reliable, but NCB Capital has not independently verified the contents of this document and such information may be condensed or incomplete. Accordingly, no representation or warranty, express or implied, is made as to, and no reliance should be placed on the fairness, accuracy, completeness or correctness of the information and opinions contained in this document. To the maximum extent permitted by applicable law and regulation, NCB Capital shall not be liable for any loss that may arise from the use of this document or its contents or otherwise arising in connection therewith. Any financial projections, fair value estimates and statements regarding future prospects contained in this document may not be realized. All opinions and estimates included in this document constitute NCB Capital's judgment as of the date of production of this document, and are subject to change without notice. Past performance of any investment is not indicative of future results. The value of securities, the income from them, the prices and currencies of securities, can go down as well as up. An investor may get back less than he or she originally invested. Additionally, fees may apply on investments in securities. Changes in currency rates may have an adverse effect on the value, price or income of a security. No part of this document may be reproduced without the written permission of NCB Capital. Neither this document nor any copy hereof may be distributed in any jurisdiction outside the Kingdom of Saudi Arabia where its distribution may be restricted by law. Persons who receive this document should make themselves aware, of and adhere to, any such restrictions. By accepting this document, the recipient agrees to be bound by the foregoing limitations.

NCB Capital is authorised by the Capital Market Authority of the Kingdom of Saudi Arabia to carry out dealing, as principal and agent, and underwriting, managing, arranging, advising and custody, with respect to securities under licence number 37-06046. The registered office of which is at Al Mather street in Riyadh, P.O. Box 22216, Riyadh 11495, Kingdom of Saudi Arabia.