

OIL & GAS
EM Oil & Gas

Initiation of Coverage

Scott Darling
+971 (0)4 428 4601
scott.darling@nomura.com
NI plc, London

Analyst Certification

I, Scott Darling, hereby certify (1) that the views expressed in this Industry Report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this Industry Report and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Industry Report.

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Middle East Energy & Power

Value in power, chemicals recovery may take time

While the supply/demand fundamentals for many commodities are deteriorating globally, the near-term outlook for Middle East power remains conspicuously tight. Power generation is struggling to meet demand growth, especially over the peak summer months, prompting some governments to continue spending and make regulatory changes in the sector. In contrast, although the collapse in global chemical prices and a weakening demand outlook has highlighted the region's low-cost producer advantage, the increase in petrochemicals capacity as part of the region's diversification plans may have helped promote a severe downturn in the chemicals cycle, in our view. As such, we prefer companies with domestic exposure to infrastructure and power, a derivative of industrialisation, rather than chemicals names that are more reliant on global export markets. Our key conviction Buy recommendations within the sector are Qatar Electricity & Water Co. (QEWC), TAQA, Dana Gas, Saudi Electric Co. (SEC) and Tabreed. We take a more cautious view on chemicals and refining with Neutral recommendations for Industries Qatar (IQ), SABIC, Petro Rabigh and Ma'aden.

- **Tight power markets:** We believe fundamentals for the Middle East power sector remain strong. We expect supply to struggle to meet peak summer demand up to 2010 before new capacity provides a more balanced market early next decade. We forecast ~\$11bn pa in new power projects required to 2020.
- **QEWC (PT QR 125), TAQA (PT AED 2.0) and Dana Gas (PT AED 0.8) are our core Buy recommendations:** These companies have direct or indirect exposure to local power and industrial sectors, high earnings growth from capacity expansions and are partly defensive in a low oil price environment. We also have Buy ratings on Tabreed and SEC.
- **Chemicals outlook likely to worsen near term...:** With weakening global demand and increased capacity, we do not expect the chemicals cycle to recover until early next decade. We see downside risk to earnings estimates in the near term as consensus expectations are, on average, ca. 40% too high, in our view.
- **...but stocks offer long-term value:** Despite the near-term uncertainty, Middle East chemicals producers are better positioned globally owing to their low-cost advantage. We see long-term value in IQ (PT QR 95) and SABIC (PT SAR 60), our preferred chemical names.

ANY AUTHORS NAMED ON THIS REPORT ARE RESEARCH ANALYSTS UNLESS OTHERWISE INDICATED.

PLEASE SEE IMPORTANT DISCLOSURES BEGINNING ON PAGE 162 GI



Middle East energy & power coverage summary

Company	Country	Price*	Rating	Price Target	Up/downside, %	Key positives	Key negatives
Oil & gas							
Dana Gas	UAE	AED 0.59	Buy	AED 0.8	36	<ol style="list-style-type: none"> 1. High production growth and upside to exploration 2. Indirect exposure to Middle East power 3. Limited sensitivity to oil prices 	<ol style="list-style-type: none"> 1. Geopolitical risks in Kurdistan 2. Low-margin barrels 3. UAE gas project delays
TAQA	UAE	AED 1.12	Buy	AED 2.0	65	<ol style="list-style-type: none"> 1. Leverage to tight Abu Dhabi power market 2. Acquisition strategy 3. Attractive valuation and dividend yield 	<ol style="list-style-type: none"> 1. Higher oil price gearing versus Dana Gas 2. Stock liquidity and market risks 3. Asset integration
Petrochemicals							
SABIC	KSA	SAR 45.9	Neutral	SAR 60	31	<ol style="list-style-type: none"> 1. Low-cost producer supported by cheap gas 2. Strategic location and track record of project delivery 3. Acquisition strategy to diversify into high-margin products 	<ol style="list-style-type: none"> 1. Downgrade risk to earnings 2. Lower chemicals demand and exposure to Europe 3. Possible write-downs from acquisitions
Industries Qatar (IQ)	Qatar	QR 69.5	Neutral	QR 95	37	<ol style="list-style-type: none"> 1. High capacity growth, expansions in fertiliser 2. Organic growth versus acquisition strategy 3. Attractive valuation 	<ol style="list-style-type: none"> 1. Cost disadvantage relative to Saudi 2. Lower chemicals demand and execution risks 3. Downgrade risk to earnings
Refiners							
Petro Rabigh	KSA	SAR 21.0	Neutral	SAR 27	29	<ol style="list-style-type: none"> 1. Low-cost producer 2. Integrated plant with improved yields 3. Strategic shareholder support 	<ol style="list-style-type: none"> 1. Weak oil and chemicals demand 2. Expansion risks and disclosure 3. Limited diesel yield and low product specifications
Utilities							
Qatar Electricity & Water (QEWC)	Qatar	QR 78.8	Buy	QR 125	59	<ol style="list-style-type: none"> 1. High capacity growth from Qatar's industrialisation 2. Attractive and secure tariff structure 3. Government support from gas feedstock and customer 	<ol style="list-style-type: none"> 1. Operational risks 2. Contractor risks 3. Government ownership
Saudi Electric (SEC)	KSA	SAR 9.5	Buy	SAR 14	48	<ol style="list-style-type: none"> 1. Benefits to unbundling company/break-up value upside 2. Tight power market with increase in power tariffs 3. Attractive dividend yield 	<ol style="list-style-type: none"> 1. Slow restructuring – social versus economic issues 2. Low free float and disclosure 3. High earnings multiples
Tabreed	UAE	AED 0.54	Buy	AED 0.8	48	<ol style="list-style-type: none"> 1. Integrated business model and benefits to contract structure 2. Capacity growth partly linked to government entities 3. Low valuation 	<ol style="list-style-type: none"> 1. Restructuring may take time 2. Distressed seller of operational and non-core assets 3. High gearing
Mining							
Ma'aden	KSA	SAR 12.3	Neutral	SAR 16	30	<ol style="list-style-type: none"> 1. Upside to phosphate project & partnership with SABIC 2. Sufficient funding 3. Low-cost producer 	<ol style="list-style-type: none"> 1. Project visibility and execution 2. Decline in gold production 3. Disclosure

Note: KSA = Kingdom of Saudi Arabia, UAE = United Arab Emirates. *All share price information in this report is priced at closing 18 and 19 February 2009.

Source: Nomura estimates

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Middle East energy & power themes

In this report, we highlight some of the key themes for the Middle East energy market that relate to our stock coverage. Our stock preference is for companies geared to domestic infrastructure and power spending where governments have underwritten the financial risk. While the global economy is slowing and therefore demand for Middle East exported products is decreasing, we believe the region is unlikely to cancel existing and important new projects, such as refineries or petrochemicals plants, which assist in its industrialisation and diversification.

Saudi Arabia is most at risk of power shortages in the summer months, hence...

The Middle East power sector remains tight: We believe fundamentals for the Middle East power sector remain strong. We expect overall demand growth to average 6% pa, in the 2009-20E period, with supply struggling to meet demand in peak periods toward 2010, although new capacity onstream may lead to a more balanced market from early next decade before gradually tightening again. This equates to ~\$135bn total spending in new power projects to 2020. With the market heavily dependent on peak demand in the summer cooling season, we see some countries (eg, Saudi Arabia) being particularly tight during the summer months in the near term. In addition, the requirement for non-government funding for some developments may see cancellations, thus further limiting supply in the long term.

... we believe regulatory changes to introduce efficiencies and competition are likely

Regulatory changes to power sector possible: The tightness in the power sector has prompted some governments to rethink policy over introducing competition into the industry and liberalising mostly state-run monopolies. For example, we expect Saudi Arabia gradually to unbundle its power monopoly, Saudi Electric, eventually creating competing companies in generation and distribution.

Upstream projects tend to be backed by governments, so they are immune to project-financing requirements

Delays, but key upstream projects not cancelled: Since materials prices and contractor rates have fallen sharply, we see energy producers taking prudent steps to renegotiate or delay proposed energy projects in an attempt to obtain lower costs. This may result in contract awards proposed at end 2009 being delayed to 2010. However, as many important upstream projects tend to be backed by government or national energy company capital (~90%) rather than dependent on project financing, we expect only a limited number of developments to be cancelled.

Upstream investments may total \$225bn over the next ten years

Gulf Cooperation Council (GCC) spending to continue: While we expect overall spending for the oil and gas industry to fall 10-15% in 2009 and even 30-50% in 2010 should oil prices continue below \$50/bl (*Oil Services & Drilling, Nomura research, 9 February 2009*), we expect GCC capex to remain more resilient. Many GCC government budgets show a continued increase in spending by running budget deficits. We see an increase in spending by the GCC as strategically sound in the current downturn and estimate total upstream project capex to average \$23bn pa over the next 10 years.

Financing for specific industrial cities is unlikely to stop, in our view

Limited project financing: In contrast to the upstream, petrochemical and utility projects tend to rely more on project financing, which has dried up in the current financial environment. There will be downstream projects unable to obtain funding, although we

believe those projects within the power, water and infrastructure sectors linked to a key industrial city backed by the government are likely to be seen as more secure and attractive to investors and hence progressed. For example, King Abdullah industrial city in Saudi and Mesaieed in Qatar.

IPOs for some chemical projects also serve to support local equity markets

More petrochemical IPOs... eventually: The model for some governments has been partly to self-finance projects with a strategic investor and offer some equity to local investors via an IPO; for example, Petro Rabigh and possibly the Jubail refinery in Saudi Arabia.¹ With the requirement to fund key projects likely to continue and newly listed companies supporting local equity markets, we see more petrochemical offerings in the region in the medium term.

IQ and SABIC capacity expansions contribute to the chemicals downturn

Petrochemical expansion is extending the downturn in the cycle: The increase in Middle East petrochemical capacity coming onstream is likely to be contributing to one of the worst downturns in the global chemicals cycle for many years, in our view. We estimate global ethylene capacity will increase by 24mton or 6% pa to 2010, with ~50% of new additions coming from the Middle East.

Weakness in UAE real estate has distorted the outlook for other sectors in the Emirates

UAE – not just real estate: The slowdown in UAE's real estate market has focused investors' attentions elsewhere, leaving the UAE markets trading near historical lows. As a consequence, TAQA and Dana Gas have seen significant absolute falls in their share prices since early 2008, unfairly in our view. These companies have operations either outside the UAE or linked to the tightening power sector within the Emirates and are partly defensive to oil prices.

Government agendas differ from those of minority shareholders

Energy sector – strategic for governments: Most companies in our energy coverage have large government ownerships as a consequence of the strategic nature of the sector (eg, Saudi petrochemicals). This may provide some security in current markets where liquidity and access to cash are a focus, but in the long term, we see a risk to minority shareholders. Government agendas may be different from those of minority shareholders. Many governments are aware of preserving resources for future generations and so may restrict producers in exploiting attractive projects. For example, Qatar has a moratorium on its North gas field, which means no new projects until 2012, to test the reservoir and ensure the resource value is maximised for future generations. In addition, political opposition to certain projects also serves to remind foreign investors that they will always be in the minority in the Middle East; for example, the cancellation of Dow's \$17.4bn petrochemical JV in Kuwait.

For a brief overview on the Middle East markets highlighted in this report, please refer to Appendix 1.

¹ Saudi Aramco has decided to self-finance 50% of \$8bn cost of a new 400 kb/d refinery at Jubail, JV with Total. The remaining \$4bn is to come from product sales when commercial operations start in 2013 with some equity offered to Saudi investors according to Platts, 4 February 2009.

Company recommendations

Buy (listed in order of preference)

Buy
 Price target QR 125 per share
 59% upside potential

Qatar Electricity & Water Company (QEWC) – Value in Qatar’s industrialisation: QEWC’s business model is relatively simple. The company produces electricity and water by exploiting Qatar’s low-cost and readily available natural gas as feedstock and then sells the output to Qatar’s state-run Kahramaa. As such, QEWC’s margin is essentially guaranteed and partly dependent on its ability to expand operations either organically or via joint venture partners. With the stock offering 59% potential upside to our QR 125 per share price target, we see QEWC as best way to capture the growth outlook from Qatar’s industrialisation. We initiate on QEWC with a Buy rating.

Buy
 Price target AED 2.0 per share
 65% upside potential

TAQA – Leverage to Abu Dhabi power: TAQA is geared to both the UAE power sector and the oil and gas sector outside the UAE, and we see the company’s business model as partly defensive in the current low oil price environment. TAQA employs an acquisition strategy aimed at building a portfolio of mainly upstream and power assets outside the UAE using Abu Dhabi government’s indirect shareholding as a way to access cheap debt. Since asset valuations have fallen sharply from historical levels, TAQA has the opportunity to take advantage of future distressed asset sales. We see this factor together with the company’s gearing to the tight Abu Dhabi power market as not fully reflected in the share price. TAQA trades on a 30% discount EV:EBIDA 2009E to Dana Gas, its closest Middle East peer, and in line with the global oil company peer group. We initiate on TAQA with a Buy rating and AED 2.0 per share price target.

Buy
 Price target AED 0.8 per share
 36% upside potential

Dana Gas – Strength in Middle East gas: Dana Gas’ high production growth and ability to turn discovery into commercial production has been impressive, in our view. We forecast 40% growth in 2009 mainly driven by its gas developments in Kurdistan. Despite uncertainties around the UAE gas project where Dana Gas has a stake and geopolitical risks within its key producing region, Kurdistan, we see the current stock price level as a good entry point to gain exposure to the Middle East gas and power markets. We initiate on Dana Gas with a Buy rating and AED 0.8 per share price target. Since many of the key gas projects in the GCC involve the major oil companies such as ExxonMobil, BP, Shell and Total, which trade on average 7.1x EV:EBIDA 2009E², we see these companies as an alternative equity investment approach to gain exposure to Middle East gas.

Buy
 Price target SAR 14 per share
 48% upside potential

Saudi Electric (SEC) – Benefits to unbundling: The Saudi electricity regulator has proposed the unbundling of SEC and an increase in power tariffs to reflect the cost of generation. We believe liberalisation will take time but will eventually take place in the medium term owing to tightness within the country’s power sector. On our preferred valuation multiple, SEC is trading on 0.8x P/B 2009E, a 46% discount to the global and emerging market Utility companies, which we believe does not fully reflect SEC’s initial unbundling. With SEC providing a 7% dividend yield relative to the Saudi 10-year bond yield at 5.5%, investors may see SEC as an

² Data based on Bloomberg consensus, EV:EBIDA 2009: Total 5.7x, Shell 5.2x, BP 4.5x and ExxonMobil 10.0x. Proportion of production in the Middle East: Total (4%), Shell (11%), BP (5%) and ExxonMobil (16%).

alternative way to invest in Saudi Arabia with the possibility of restructuring upside. We initiate on SEC with a Buy rating and SAR 14 per share price target.

Buy
Price target AED 0.8 per share
48% upside potential

Tabreed – Good value despite restructuring risks: Tabreed's business model of building, contracting and servicing district cooling services in the GCC would seem sensible in the world's hottest region with high population growth. However, the company seems to have grown too quickly, which has led it to embark on a plan to sell non-core assets, reorganise the company structure and eventually reduce ownership in its non-UAE JVs. While we still see Tabreed's restructuring as a challenge in the current financial environment, with the company trading around its historical low point and with exposure to government-backed construction projects, we believe the current level provides an attractive entry point for investors. With 48% potential upside potential to our AED 0.8/share price target, we initiate with a Buy recommendation.

Neutral (listed in order of preference)

Neutral
Price target QR 95 per share
37% upside potential

Industries Qatar – High growth, low cost: IQ is Qatar's chemicals and metals conglomerate, which relies on low-cost gas feedstock from one of the largest gas fields in the world to assist in the industrialisation of the country. IQ's strategy has relied on organic growth rather than acquisitions, with the company aiming to double capacity in some areas from 2008. Limited exposure to a weakening European chemicals market differentiates the company from its main competitor, SABIC. With the stock trading on 6.2x EV:EBITDA 2009E, a 30% discount to SABIC, we see the company as the best way to gain exposure to Middle East petrochemicals but remain cautious in the near term over the ability for IQ to deliver on its expansion plans. We initiate on IQ with a Neutral rating and QR 95 per share price target.

Neutral
Price target SAR 60 per share
31% upside potential

SABIC – Low cost despite slowdown: SABIC's advantaged cost position and domestic expansion plans set it apart from other commoditised chemical producers. The company benefits from the lowest gas prices in the world and adequate feedstock from Saudi Aramco, Saudi's national oil company. While we believe SABIC's strategy to diversify into higher-margin specialty chemicals is prudent, the acquisition of GE Plastics at the top of the cycle could have been timed better. With previous deals providing exposure to a deteriorating European chemicals market, the focus is likely to be on assets in Asia. With 31% potential upside to our price target of SAR 60/share, we see value as a long-term holding. However, with near-term downside risk to earnings from a weakening chemicals cycle, we see a better entry point to the shares at below SAR 40/share. We initiate with a Neutral recommendation.

Neutral
Price target SAR 27 per share
29% upside potential

Petro Rabigh – Awaiting project delivery: Petro Rabigh is one of the world's largest fully integrated refinery and petrochemicals companies, operating the 400kbpd Rabigh refinery, north of Jeddah. The company has made investments in upgrading units in the Rabigh refinery to improve product yields and profitability. With the refinery in operation, but the petrochemical units yet to ramp up fully, a weak demand outlook for global oil/chemical products, and the stock trading on 12.2x EV:EBIDA 2009E, a 74% premium to the global refiners average, we take a cautious view until we start to see the contribution from the

company's upgrading investment. We initiate on Petro Rabigh with a Neutral rating and SAR 27 per share price target. As an alternative way to gain exposure to Petro Rabigh, we prefer investors to own Sumitomo Chemicals (price target ¥460, rating Buy), which has a 37.5% stake in Petro Rabigh (see page 10).

Neutral
Price target SA 16 per share
30% upside potential

Ma'aden – Diversifying away from gold: The decline in Ma'aden's gold output has led the company to diversify into phosphate mining as an alternative way to maximise the value of Saudi Arabia's mineral resources. Ma'aden will benefit from having some of the lowest costs in the industry and with the inclusion of SABIC (30% stake) as a key partner in the project, an experienced marketer of its mined product to end users in the fertiliser market; however, we believe the project is likely to increase global supplies of phosphate and put downward pressure on fertiliser prices in the medium term. This factor, together with limited visibility over the project start-up after previous delays, we take a conservative view on Ma'aden. Although we see long-term value, we initiate with a Neutral recommendation and a SAR 16/share price target.

Middle East energy & power valuation summary

Company	Market cap, \$bn	Free float, %	Government ownership, %*	Open to foreign investors, %**	EV:EBIDA, x		P/E, x		P/B, x		Div, % RoAE, %		Nomura EPS 09E	Consensus EPS 09E	Difference
					09F	10F	09F	10F	09F	10F	09F	10F			
Oil & gas															
Dana Gas	1	80	0	49	10.4	7.6	13.3	12.5	0.5	0.5	n/a	4	0.04	0.11	(58%)
TAGA	2	28	72	0	7.3	6.5	7.4	4.7	0.7	0.6	8.1	11	0.16	0.34	(56%)
Petrochemicals															
SABIC	37	30	70	0	8.7	8.8	11.8	11.4	1.3	1.3	4.4	11	3.9	7.07	(49%)
IQ	11	26	70	25	6.2	6.3	7.3	7.6	1.8	1.6	6.8	25	9.5	12.88	(28%)
Refining															
Petro Rabigh	5	25	37.5	0	12.2	6.3	15.7	5.2	2.0	2.0	n/a	13	1.3	n/a	n/a
Utilities															
QEWG	2	36.5	52	25	9.5	7.9	9.0	7.6	1.7	1.5	6.4	20	8.8	7.94	11%
Saudi Electric	10	19	81	0	5.4	4.8	28.5	24.5	0.8	0.8	7.4	3	0.3	0.35	12%
Tabreed	0.2	70	30	49	17.8	14.1	13.3	10.2	0.5	0.5	n/a	3	0.04	0.07	(39%)
Mining															
Ma'aden	3	45	55	0	23.8	25.1	35.4	38.7	0.7	0.7	n/a	2	0.35	0.23	52%

*Includes direct and indirect government ownership only. **SABIC, Petro Rabigh, SEC and Ma'aden available to GCC (Gulf Cooperation Council) investors only. TAGA available to UAE nationals only.

Source: Bloomberg, Zawya, Nomura estimates

Nomura's Energy research coverage exposed to the Middle East

As an alternative way for investors to gain exposure to the key energy themes highlighted in this report, we have detailed below some ideas for non-GCC equities.

Nomura's global research energy coverage and selected companies exposed to the Middle East market

Company	Rating	Price target	% Revenue attributed to Mid East	Country exposure	Sector	Analyst
Core holdings for Middle East exposure						
International Power	BUY	380p	7%	Oman, UAE, KSA, Qatar	Power	John Musk (+44 207 102 4138), john.musk@nomura.com
Petrafac	BUY	590p	60%	UAE/Oman/Kuwait/Egypt	Upstream	lqbal.Nasim (+44 207 102 3977), lqbal.Nasim@nomura.com
Tecnicas	BUY	EUR 25	65%	KSA/UAE	Upstream/downstream	lqbal.Nasim (+44 207 102 3977), lqbal.Nasim@nomura.com
Maire Tecnimont	BUY	EUR 2.2	60%	KSA/UAE	Downstream	lqbal.Nasim (+44 207 102 3977), lqbal.Nasim@nomura.com
Saipem	BUY	EUR 15	50%	KSA	Upstream/downstream	lqbal.Nasim (+44 207 102 3977), lqbal.Nasim@nomura.com
Sumitomo Chem	BUY	¥460	60%**	KSA	Chemicals	S. Nishimura (+81 3 5255 1641); s2-nishimura@fc.nomura.co.jp
Other investment ideas for Middle East coverage						
Iberdrola	BUY	EUR 8.50	<1%	n/a	Construction	Martin Young (+44 207 102 1536), martin.young@nomura.com
GDF Suez	NEUTRAL	EUR 40.5	3%	Qatar, UAE, Bahrain	Power/water	Martin Young (+44 207 102 1536), martin.young@nomura.com
Suez Environnement	BUY	EUR 21.6	1%	KSA, UAE, Qatar, Oman	Water	Martin Young (+44 207 102 1536), martin.young@nomura.com
Veolia Environnement	BUY	EUR 31.0	2%	UAE	Water	Martin Young (+44 207 102 1536), martin.young@nomura.com
Larsen & Toubro	NEUTRAL	INR 772	18%	KSA, Qatar, UAE	Upstream/downstream /power	Saion Mukherjee (+91 22 4037 4184), saion.mukherjee@nomura.com Tanuj Shori (+91 22 4037 4028), tanuj.shori@nomura.com
Technip	REDUCE	EUR 19	30%	Qatar/KSA	Upstream/downstream	lqbal.Nasim (+44 207 102 3977), lqbal.Nasim@nomura.com
Yara	NEUTRAL	NOK 165	8%	Qatar	Chemicals	Jean de Wattville (+44 207 102 4098); j.dewattvil@nomura.com
Lafarge	Not covered	n/a	13%	Egypt, Iraq	Cement	Ankur Agarwal (+91 22 3053 2856); ankur.agarwal@nomura.com
Total*	Not covered	n/a	4%	Qatar, UAE, Yemen, Oman, Iran, Syria	Upstream/chemicals	n/a
BP*	Not covered	n/a	5%	UAE, Qatar	Upstream/downstream	n/a
Shell*	Not covered	n/a	11%	UAE, Oman, Syria	Upstream/downstream	n/a
Eni*	Not covered	n/a	2%	Iran	Upstream	n/a
ExxonMobil*	Not covered	n/a	16%	Qatar, UAE, Yemen	Upstream	n/a

Note: KSA = Kingdom of Saudi Arabia, UAE = United Arab Emirates. *Data based on an approximate value from production data. **Earnings before tax forecast in 2010.

Source: Nomura research

Saudi Arabia – Not just an oil price call

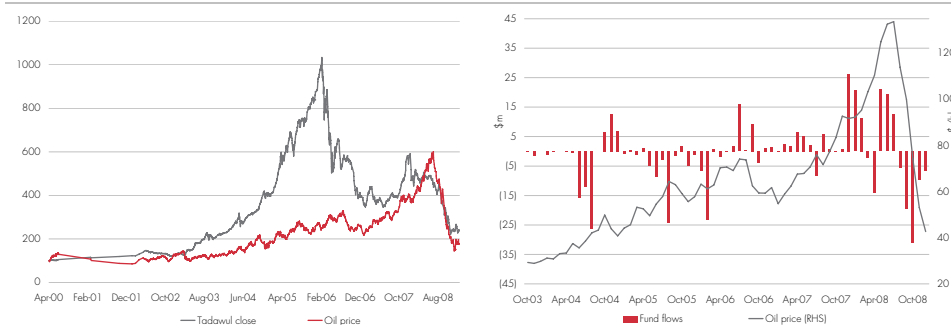
We expect a slowdown in Saudi Arabia's economy in 2009 and take a cautious view in the near term. We forecast real GDP growth at 1.0% in 2009. With the government's plans to diversify its economy still dependent on petrodollars, an extended collapse in oil prices, as was observed in the early 1980s and late 1990s, will ultimately see an erosion in the Kingdom's "wealth cushion" and lower GDP growth. However, with Saudi Arabia's fiscal breakeven level around the \$30/bl mark and our view that the marginal average cost of supply is over \$60/bl in the long term, we see the country able to withstand any temporary collapse in oil prices.

Any recovery in the chemicals cycle and GDP growth in key export markets may partly influence the Tadawul in the coming year

While Saudi's economy is largely oil driven, the relationship between the local equity market and oil does not seem to be as dependent. The dominance of retail investors on the Saudi stock market (Tadawul), who account for over 90%, together with no listed oil companies mean that confidence and earnings expectations for some of the other major index constituents, rather than other factors such as the oil price, may dictate future market outlook. Indeed, we have found no clear correlation between the performance of the Tadawul and the oil price (0.6 correlation) over the last 10 years. This is contrary to the view taken by international investors where outflows from dedicated country funds have followed the collapse in the oil price from July 2008 (see charts below). Tadawul's largest constituents such as petrochemicals (~30% of the Tadawul by average trading volume) are mainly focused on export markets. As such, the outlook for GDP growth, particularly in Asia, a key market for these producers, and a quick recovery in the chemicals cycle may partly influence the market in the coming year, the latter of which we take a cautious view.

Saudi stock market (Tadawul) and fund flows versus oil price*

The Tadawul and the oil price do not exhibit a strong correlation, although the outflow from international dedicated country funds has followed the oil price recently



*Tadawul and oil price data adjusted for same day trading, rebased 20 April 2000 = 100. Fund flow data relates to dedicated international country funds.

Source: Datastream

Capital flows from local funds repatriating assets back to local markets may provide support for the Middle East markets

Since Sovereign wealth funds and other GCC funds represent a significant proportion of the investor base in Middle East markets, repatriation of foreign assets invested back into the region may provide some support for the Saudi and other local markets in the medium term. Indeed, the Director General of the Inter-Arab Investment Guarantee Corporation said recently: "The global financial collapse has shown us not only the dark side of the so-called globalisation that has pushed the whole world to the brink of a severe recession overnight, but also proved the soundness of calls and theories that keeping Arab investments at home make them more safe and stable. Reducing those investments and dependency on the global market will therefore allow them to avert many risks..."

Stable political regime

The Saudi regime remains stable and reform measured

Both King Abdullah (who came to the throne in 2005) and Crown Prince Sultan are octogenarians, and questions remain about who may emerge in due course as next in line to the throne thereafter. However, the regime remains stable and we do not expect any fundamental challenges to the al Saud family to emerge in the foreseeable future despite the latent threat of Islamic extremism/terrorism.

Since coming to the throne, King Abdullah has actively pursued an ambitious programme of modernisation and economic diversification – arguably highlighted earlier this month by a wide-ranging government reshuffle (an unusual event in itself), which saw two conservative senior religious officials sacked and the appointment of the Kingdom of Saudi Arabia's (KSA) first-ever female minister. But, overall, the pace of reform remains measured. Government policy will continue to focus largely on economic development and partial municipal elections due this year may be delayed. Faced with a substantial budget deficit in 2009/10 (the first since 2002) of around \$17bn according to the Finance Ministry, thanks to the sharp drop in the price of oil, the government will continue to seek foreign investment into six new economic cities.

The Saudi oil minister has said that KSA's OPEC quota stands at just over 8m bls/d following cuts agreed last December. We believe the Saudis would be prepared to cut output further in an effort to push oil towards \$70/bl, but we doubt that other OPEC members would show similar resolve. Internationally, the Saudis have come under some press criticism in the region for 'not doing enough' to halt the recent Israel/Gaza conflict and are likely to be keen to see an early and genuine effort by the Obama Administration to push for a two-state Israel/Palestine solution. They will also be keen to see US/Iran engagement and efforts by the international community to reduce any possibility of Israeli military intervention against Iran's nuclear programme (which we judge to be non-negligible towards the end of this year if Iran continues on its current uranium enrichment track).

Qatar – Robust growth and less risk

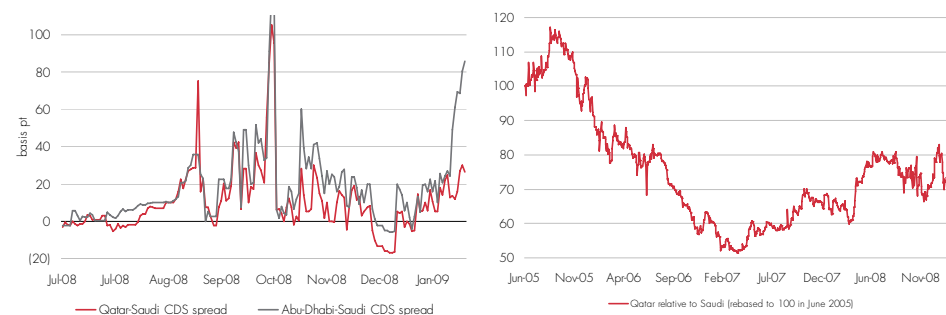
GDP growth at 4.2% in 2009

Despite the fall in natural gas prices, we believe that industrialisation will continue in Qatar as a way to diversify the economy, create jobs for society and monetise the country's vast gas reserves. This has been an important driver for Qatar's economy this decade, which may see the country stand out relative to its Middle East peers in terms of economic growth, in our view. The country's size also provides economic flexibility relative to some of its larger GCC peer group. Although we forecast real GDP growth to slow to 4.2% in 2009, we expect a recovery to 6.0% in 2010, supporting industrial development and construction. This seems to be reflected in the relative risk and equity performance between Qatar and other Middle East countries, for example, Abu Dhabi and Saudi Arabia. The charts below show the five-year credit default swaps for Qatar and Abu Dhabi relative to Saudi Arabia's five-year CDS as a benchmark. With these spreads having tracked each other historically, investors seem to view Qatar as a better risk profile relative to Abu Dhabi, which reflects the challenges for the Emirate with respect to its relationship with Dubai. In addition, the Qatari market has underperformed the Saudi market historically, a trend that may reverse owing to Qatar's better economic outlook.

Qatar's relative risk and equity market performance

Investors see a better relative risk profile for Qatar relative to the UAE

Qatar has underperformed the Saudi market historically



Note: Performance chart shows MSCI Qatar index relative to the main 50 stocks on the Saudi index.

Source: Datastream

Limited reform pressure, improved relations with Saudi

On the political side, Qatar has been ruled by Sheikh Hamad bin Khalifa al-Thani since he overthrew (acceded to power) his father over a decade ago. Despite being relatively young by the general standards of the region's rulers (he was born in 1952), there are concerns about his health. But in 2003 he appointed his fourth son, Sheikh Tamim bin Hamad al-Thani, as Crown Prince; and his cousin, who serves as both the prime minister and foreign minister, Sheikh Hamad bin Jassem al-Thani, is expected to ensure continuity in the event of a succession.

Furthermore, there is little or no internal pressure for political reform – to the point where constitutional changes made in 2008 to permit the two-thirds-elected Advisory Council to replace the current wholly appointed one are unlikely to see elections held until 2010 at the earliest. Politically, the regime is therefore likely to continue to focus on foreign policy challenges and opportunities to boost Qatar's prestige through its mediation efforts, maintaining a pro-US stance while co-ordinating generally with other GCC members and

especially over Iran. Qatar will maintain an independent foreign policy, but it will broadly align itself with the rest of the Gulf Cooperation Council with regard to relations with Iran. Relations with Saudi Arabia (which had been under strain thanks, in part, to Qatar's hosting of the *al Jazeera* TV channel) have improved in the past 12 months, highlighted by the recent signing of a wide-ranging bilateral agreement.

Thanks to Alastair Newton, Political Analyst (+44 207 102 3940) and Serhan Cevik, Economic Analyst (+44 207 521 2357)

For more information on GCC economics see Nomura Global Economics, GCC: Desert Storm, 20 February 2009.

Upstream & downstream

Dana Gas – The Middle East’s independent gas producer

Stock rating	BUY
Price, 19 Feb	AED 0.59
Price target	AED 0.8
Upside potential, %	36
Market cap, AEDbn	4
Market cap, \$bn	1

Valuation	2009F	2010F
EPS	0.04	0.05
P/E	13.3	12.5
Div. Yield, %	n/a	n/a
EV/EBIDA, x	10.4	7.6

Performance, %	QTD	YTD
Absolute, AED	(2)	(2)
vs. market	4	4

Asset mix by business, %	
E&P	100
R&M	0
Chems	0
Power	0
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	100
Asia	0
Total	100

Earnings mix by business, %	
Upstream	100
Midstream	0
Downstream	0
Chemicals	0
Total	100

Catalyst dates	
Start-up of El-Basant	1Q09
Start-up of W.Manzala-2	2Q09
Ramp up of Kurdistan gas	1H09

Dana Gas is one of the Middle East's largest independent gas producers focusing on exploration, production and processing of natural gas and liquid hydrocarbons. The company's upstream activities are concentrated mainly in Egypt and northern Iraq. The company is also involved in midstream activities in the UAE. The company's free float is 80% (excluding Crescent Petroleum's 20% share), although there is a foreign ownership restriction limit of 49%.

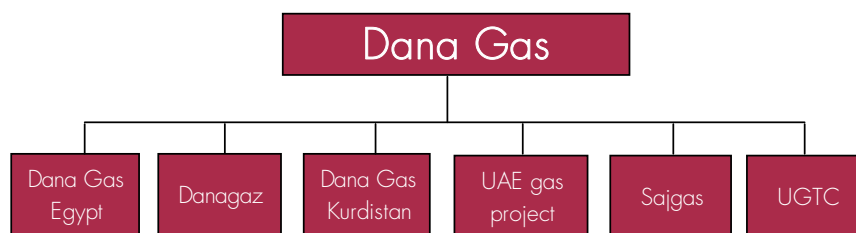
Brief history

2005	IPO on Abu Dhabi Stock Exchange
2006	Acquires Centurion Energy for \$950m
2007	Signs strategic alliance with the Kurdistan Regional Government of Iraq
2007	Awarded development rights for two gas fields in northern Iraq
2007	Issues \$1bn convertible Sukuk
2007	Acquires 66% in Danagaz Bahrain
2008	Signs exploration agreement for Western offshore concessions in Sharjah
2008	Establishes Kurdistan Gas City with regional government
2008	First gas delivered to Erbil power station in Kurdistan
2008/09	Significant gas discoveries in Egypt

Source: Company data, Nomura research

Dana Gas' main activities are to explore, produce, process, transport and sell gas, LPG and associated condensate from the MENA region into international markets and the Middle East. In the medium term, Dana Gas' strategy is to grow to a gross operating size of 500k bls/d (~250k bls/d net Dana Gas) through acquisition of new gas assets, while developing new and existing projects mainly in Kurdistan, Egypt and the UAE. The diagram below shows a schematic of the structure of Dana Gas.

Corporate structure schematic



Note: Only the main functions are shown for simplicity.

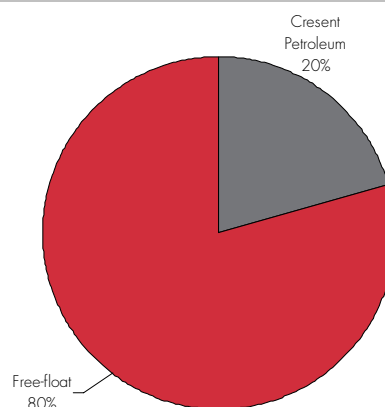
Source: Company data

Dana Gas is organised according to the projects within its business, ie, Egypt, Kurdistan Region of Iraq, UAE Gas Project, Danagaz, Sajgas and UGTC, each of which makes its own decisions on investment in co-ordination with the corporation, although the company's main activity is its exploration and production (upstream) business. Since some of these segments are not fully operational (eg, UAE gas project) and with no segmental split provided by the company, we assume all Dana Gas activities are associated within exploration and production.

Shareholder structure

Dana Gas' free float is 80% with 20% owned by Crescent Petroleum. There is a foreign ownership restriction of 49% for non-GCC investors.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Hamid Dhiya Jafar, Executive Chairman. Mr Jafar is one of the founders of Dana Gas and is a member of the board of directors and executive committee. He has very established connections across the Middle East, including Iraq, from his 40-year tenure at the helm of Crescent Petroleum, which has a 20.7% ownership in Dana Gas. He is a UAE national and an engineer.

Rashid Saif Al-Jarwan, General Manager (midstream and downstream). Mr Al-Jarwan has been a member of the board of directors since 2008 and general manager since 2006. Prior to joining Dana Gas, he spent 28 years in Abu Dhabi National Oil Company holding various technical and commercial roles. He is a UAE national and a petroleum engineer.

Ahmed Rashid Al-Arbeed, Executive Director (upstream). Mr Al-Arbeed has been a member of the board of directors since 2006 and an Executive Director since 2008. Prior to joining Dana Gas, he spent 30 years in KOC in Kuwait assisting the Ministry of Energy. He is a Kuwaiti national and a petroleum engineer.

Hany Elsharkawi, Egypt Country Director. Dr Elsharkawi heads Dana Gas' Egyptian upstream operations. He has 32 years' experience within the oil and gas industry having worked for Shell, Mobil and Oxy. He is an Egyptian and an engineer.

Neeraj Agrawal, Finance Director. Mr Agrawal has over 25 years experience in the oil and gas industry including Finance Director at Crescent Petroleum. He is an Indian and a qualified accountant.

Sum-of-the-parts NAV – upside potential without the UAE gas project

We initiate with a Buy rating and a price target of AED 0.8/share

Our primary valuation approach for Dana Gas is our sum-of-the-parts net asset value, whereby we calculate a DCF-based value for each business segment, which is essentially just the upstream business. A detailed explanation of our valuation methodology is highlighted in Appendix 2. Using this approach, we derive a share price target of AED 0.8/share, which indicates to us that Dana Gas shares provide 36% potential upside.

Dana Gas discloses financial information on its business segments, which is mainly its “exploration and production” business. For this segment, we model production from fields brought onstream over the next five years since Dana Gas’ projects such as Egypt and Kurdistan, the main source of the company’s growth, will only be ramping up from 2009, and we value unproven resources on a per-barrel basis. We assume capital continues to be invested for the next five years, after which we decline the production profile over a 30-year period. The associated cash flows drive our segment DCF valuation. Reserves not developed within five years are valued on a dollars-per-barrel basis with probable reserves at 50% of proved reserves and 10% for possible/technical resources. The key assumptions are employed within our NAV analysis, which is detailed below.

Key NAV assumptions

Assumptions		Notes
Average cash flow, \$/boe	8.2	Based on upstream margin 2009-13
Number of ordinary shares, m	6,000	
Proven reserves, mboe	55.3	As at 31 December 2008
Probable reserves, mboe	511	94.3 mboe plus Dana Gas interest in Khor Mor Gas and Chemchemical field with 2.5tcf 2P reserves
Technical reserves, mboe	241	157.7 mboe plus Dana Gas interest in Khor Mor Gas and Chemchemical field with 1tcf 1P reserves
Discount rate	11%	Middle East discount rate assumption
Exchange rate, AED/\$	3.67	

Source: Nomura estimates

Our NAV calculation gives a valuation of AED 0.80/share. We do not include Dana Gas’ participation in the UAE gas project in our valuation

Net asset value

	m boe	\$/boe	\$m	\$m	\$ per share
Upstream					
Production onstream by 2013	809	\$2.9	2,320		0.4
capex on development			(682)		(0.1)
Undeveloped P+P reserves	677	\$1.0	685		0.1
Technical reserves	241	\$0.2	49		0.0
Upstream total	1,727	1.4		2,372	0.4
Gross asset value				2,372	0.4
Net debt				(1,132)	(0.2)
Total net asset value				1,241	0.2
Shares outstanding					6,000
NAV/sh, AED					0.8

Source: Nomura estimates

Valuation multiples reflect high growth

In addition to our NAV valuation, we have compared Dana Gas with what we consider to be its global peer group, global oil and gas companies in both the emerging market arena and those with a gas bias, on a variety of valuation multiples. Our conclusions:

- On our preferred relative valuation metric of EV:EBIDA, we estimate that Dana Gas is trading at 10.4x for 2009F. This is a 45% premium to the global and emerging market exploration and production companies'³ average at 7.2x and to TAQA at 7.3x for 2009F.
- While Dana Gas trades at premium EV:EBIDA multiples for 2009F, this narrows considerably by 2010F to 7.6x, closer to the global and emerging market average of 6.3x. This is mainly because of exploration projects moving into the commercial phase. The leverage to fixed gas prices in some production areas means that the company has limited sensitivity to oil prices, and its indirect exposure to the growing power sector provides a reliable outlet for its gas.
- Free cash flow yield is negative, reflecting the increase in exploration and development capex to support production growth into the next decade, although this is typical of many of our Middle East energy coverage.
- Average EPS decline of 7% pa 2009-13F for Dana Gas, although this reflects the significant growth profile for the ramp-up of condensate and LPG in Kurdistan and the UAE in 2009-11. However, we forecast a fall in earnings growth post 2011 since we take a conservative view on exploration and do not include future drilling successes in our production outlook. Dana Gas' track record suggests to us that the company should be able to deliver more exploration success to hit its gross 500k bls/d production target by 2012.

³ We compare Dana Gas with a series of companies that we consider to be its global peer group as these firms have similar gas biases or asset bases (ie, mainly upstream) to Dana Gas. See relative valuation multiple analysis - Upstream and downstream, pages 56-57.

Key positives

- **High production growth:** We expect Dana Gas to deliver average growth of ~30% pa between 2008 and 2013. The growth is mainly driven by gas production from Kurdistan, and we do not include new projects in Egypt.
- **Possible exploration upside:** Dana Gas' drilling success ratio has been good with only one dry well from seven wells drilled. The company's latest significant discoveries in Egypt are Azhar-1 in February 2009, Salma-1 in January 2009 and El-Basant 1 in September 2008, which is planned to start up this year. We expect further discoveries in Egypt in 2009, supporting medium-term production growth.
- **Strong Middle East connections:** The board and management team at Dana Gas are not only experienced within the industry but are also made up from many countries within the GCC. We believe this gives Dana Gas a unique advantage when negotiating with Middle East governments or state-owned oil companies for access to new reserves.
- **Indirect exposure to Middle East power:** Dana Gas' gas production in Kurdistan is used as feedstock for the Erbil and Bazian power stations within the region. Dana Gas is involved directly with Crescent Petroleum in the development of a Gas City in Kurdistan. This may provide the company with further incentive to develop new gas reserves at Chemchemical and possibly participate in infrastructure projects that are clearly required in the re-building of the country. This together with the company's UAE gas project, which will feed gas into the Northern Emirates power sector, mean Dana Gas is indirectly linked to a tight power market in the medium term, in our view.
- **Valuation reflects growth:** Dana Gas trades at 10.4x EV:EBIDA in 2009F, a 45% premium to TAQA, its Middle East peer, and the global and emerging market exploration and production companies' average of 7.2x. However, this premium narrows to 21% in 2010F (7.6x EV:EBIDA) when we expect the bulk of the company's growth to be delivered.

Key negatives

- **UAE gas project delayed:** An important project for Dana Gas is the UAE gas project, which imports gas from Iran into the Northern Emirates. The project has been delayed owing to its infrastructure not being in place in Iran. Our analysis suggests that this project is worth AED 0.5/share net to Dana Gas. However, with limited transparency on resolution and hence start-up of this project, we have taken a cautious approach and do not include this development in our valuation of Dana Gas.
- **High fiscal take:** Dana Gas' production growth is mainly driven by gas with developments typically under production-sharing agreements or fiscal terms that allow the company to cover at least the costs of its development via the sale of higher-valued LPG/condensate (for example in Kurdistan). Both of these fiscal terms limit the upside potential to the company relative to simple tax and royalty regimes.
- **Limited gas price escalation:** The gas sold in Egypt and Kurdistan tends to be at lower prices than international gas prices. For example, Egyptian gas is \$2.65/mbtu, while the US gas price has averaged \$5/mbtu so far in 2009, and the gas produced in Kurdistan is effectively provided to the end user free of charge; however, this does mean that Dana Gas is relatively insensitive to oil prices.
- **Geopolitics in Kurdistan:** A significant proportion of Dana Gas' near-term production growth relates to developments in Kurdistan. While this project has been contractually executed with the Kurdistan regional government and due diligence has been carried out by an international law firm on its validity, there remains uncertainty over whether the contract is valid with the Iraqi government.

Strength in Middle East gas

Dana Gas is the only independent gas producer in the Middle East with production focused in Egypt, Iraq and the UAE. The company has exposure indirectly to the Northern Emirates power sector by virtue of its participation in the UAE gas project, which imports Iranian gas into the UAE for power generation. The company also has a project in Kurdistan, which supplies gas to local power generation firms supporting the industrialisation of Iraq. In this section, we highlight some of the key themes that support our investment case for Dana Gas.

High production growth and limited sensitivity to oil prices

We expect Dana Gas to deliver average production growth of almost 30% between 2008 and 2013F. Production growth is driven by gas production mainly from Kurdistan, which accounts for all of the company's growth in 2008-13F. The company produced just under 40kboe/d in 2008 and expects output to be 68kboe/d in 2009. While Dana Gas' production growth into the next decade is partly dependent on exploration and development success, we have taken a conservative view on the company's production and conducted a project-by-project analysis. This includes the combined effect of decline rates, delays and ramp-up for new and existing projects.

Dana Gas' production growth is mainly because of its projects in Kurdistan, although growth into the next decade is dependent on exploration activity in Egypt and the UAE

Dana Gas' production outlook



Source: Company data, Nomura estimates

As the value driver for Dana Gas is its medium-term production growth, we have conducted sensitivity between this variable and oil prices. Since the growth in production is driven by gas under fixed prices, Dana Gas is relatively insensitive to the oil price. The following chart shows the sensitivity between oil prices and production growth with our price target.

Sensitivity analysis with oil prices and production growth to our price target

<i>Dana Gas is relatively insensitive to oil prices owing to its production growth being driven by gas under fixed prices</i>	Oil price	Medium-term production growth, %								
		14%	16%	18%	20%	22%	24%	26%	28%	30%
	20	0.63	0.64	0.66	0.67	0.68	0.70	0.71	0.73	0.74
	30	0.64	0.66	0.67	0.69	0.70	0.72	0.73	0.75	0.76
	40	0.66	0.68	0.69	0.71	0.72	0.74	0.75	0.77	0.78
	50	0.68	0.69	0.71	0.73	0.74	0.76	0.77	0.79	0.80
	60	0.70	0.71	0.73	0.74	0.76	0.78	0.79	0.81	0.82
	70	0.71	0.73	0.75	0.76	0.78	0.80	0.81	0.83	0.84
	80	0.73	0.75	0.76	0.78	0.80	0.81	0.83	0.85	0.87
	90	0.75	0.77	0.78	0.80	0.82	0.83	0.85	0.87	0.89
	100	0.77	0.78	0.80	0.82	0.84	0.85	0.87	0.89	0.91
	110	0.78	0.80	0.82	0.84	0.86	0.87	0.89	0.91	0.93
	120	0.80	0.82	0.84	0.86	0.87	0.89	0.91	0.93	0.95

Source: Nomura estimates

Dana Gas' projects in Egypt are based mainly under production-sharing agreements, which limits any economic upside for the company relative to a tax & royalty system. The government profit share within Dana Gas' concessions is approximately 75% (after 30% cost gas has been applied) in Egypt. While not as progressive as in some countries such as Iran and Nigeria, it still represents a higher fiscal take than in many OECD countries. In Kurdistan, the fiscal arrangement allows Dana Gas to recover its costs and provides a certain unspecified margin. In addition, Dana Gas sells gas at prices lower than in international markets. Historically, gas produced in the Middle East was a by-product of oil production and, hence, flared or sold at low fixed prices and typically not always linked to oil prices. However, Dana Gas sells gas in Egypt at \$2.65/mbtu, which is linked to oil prices, but at low levels (\$22/bl). These fiscal regimes together with low gas pricing are reflected in the company's cash flow per barrel, which is \$10/bl for 2008 relative to TAQA, which is more exposed to higher-margin North Sea and Canadian barrels, at \$27/bl.

Possible exploration upside

Dana Gas' main exploration areas are in Egypt and Kurdistan, which we expect to continue to drive medium-term production growth. The company expects to drill 13 exploration wells in Egypt, completing five development wells by 2009. A list of the key wells and exploration projects is detailed in the table below. The size of operations and the presence of existing export infrastructure mean that Dana Gas is able to commercialise new discoveries quickly, for example, the El Basant-1 discovery, which was made in September 2008, represents 20% of the company's reserve base and is expected to be in production in 2Q09 owing to its proximity to El Wastani gas processing facilities at 40mcf/d. At Chemchemical in Kurdistan, Dana Gas will drill two appraisal wells, which may provide some upside to the Iraqi ministry's estimate of 2.5tcf 2P reserves. This development supports Dana Gas' production growth in the next decade. Dana Gas is already ramping up gas production at the Khor Mor field in Kurdistan, which will feed local power stations, while Chemchemical gas is planned to feed Kurdistan's gas city development. We believe it would be more economic for the company to export the gas north to Turkey as it pays European gas prices (currently \$10.6/mbtu for industrial users in February). However, no

direct gas deal between Turkey and Kurdistan has been agreed, and we believe it is unlikely that Turkey would risk annoying the Iraqi government because of the greater oil potential in the south of the country, which Turkey may want to exploit.

Dana Gas exploration activity

Dana Gas' exploration activity has been impressive, in our view, as has the company's ability to bring discoveries onstream quickly

Well	Country	Status	Year	Comments
El Basant-1 & 2	Egypt	Discovery	2008/09	Recoverable reserves 160 bcf gas plus condensates. Production expected 1H09
Al Baraka-2	Egypt	Discovery	2008	
Abu Gabal-1	Egypt	Discovery	2008	
Shahin-1	Egypt	Dry well	2008	Only dry well for Dana Gas
Narges-1	Egypt	Exploration well planned	2009	
Azhar-1	Egypt	Discovery	2009	Expected to add 100bcf gas to reserves
Zahran-1	Egypt	Exploration well planned	2009	
Etea-1	Egypt	Exploration well planned	2009	
Salma-2	Egypt	Exploration well planned	2009	
Salma-3	Egypt	Exploration well planned	2009	
Salma-1	Egypt	Discovery	1Q09	Expected to add 230 bcf gas plus condensate to reserves
Sama-1	Egypt	Exploration well planned	2009	
Sakan-1	Egypt	Exploration well planned	2009	
Sharabas-1	Egypt	Exploration well planned	2009	
Marouk-2	Egypt	Exploration well planned	1H09	Deeper strata acreage
Matariya-2	Egypt	Exploration well planned	2009	Deeper strata acreage
W.Marzouk-1	Egypt	Exploration well planned	1H09	
West Manzala-2	Egypt	Discovery	1Q09	Production expected to start up in 2Q09
Chemchemical	Kurdistan	2 Appraisal wells planned	2009	
Khor Mor	Kurdistan	1 Development well	2009	

Source: Company data

Geopolitical risks in Kurdistan

Despite the geopolitical risks, Dana Gas' projects in Kurdistan help benefit the rebuilding of Iraq

While Dana Gas' projects in Kurdistan have been approved by the Kurdish regional government, there still remains tension between the KRG and Baghdad, which we believe represents a geopolitical risk for the company. Last year, Iraqi Prime Minister Nuri al-Maliki accused KRG of multiple violations to the constitution, while there is some uncertainty as to whether existing agreements with companies and the KRG would be valid under any Iraqi hydrocarbon law. The Iraqi Oil Minister, Mr Shahrastani, has recently said: "Any company that has signed a contract with Iraq without the approval of the central government is breaking Iraqi laws, and we will not be dealing with them. If they [international and GCC based companies] give up their contracts as SK Energy has done, they can come to us and we can consider their position. It is not only Crescent [Dana Gas' partner]; we have taken the same position with OMV, with Reliance, with SK Energy, with KNOC." (MEES, 5 January 2009) In addition, the Kurdish separatist group, PKK, continues to attack around Kirkuk to Ceyhan, which is near Chemchemical and Khor Mor.

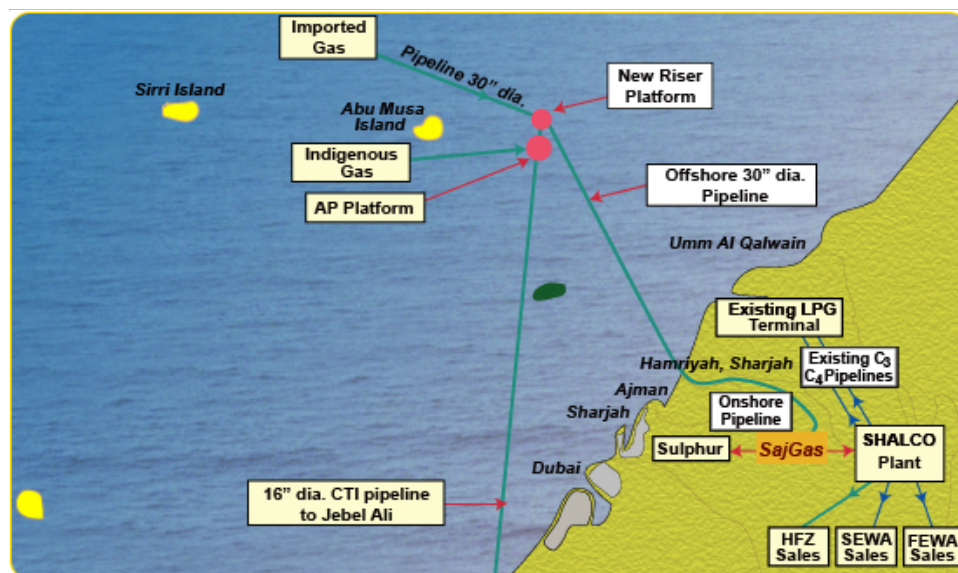
UAE gas project price dispute, but still upside potential

Dana Gas is indirectly exposed to the Northern Emirates power sector where demand has averaged 7.5% pa

Dana gas via its subsidiaries/joint ventures is involved in an infrastructure project that imports gas from the Salman gas field in Iran to a processing facility in Sharjah, UAE. The project is essential for the Northern Emirates to meet the area's growing need for gas as feedstock in power generation and water desalination (average demand growth 7.5% pa in power generation in the Northern Emirates). The project is split into three components with Dana Gas' share in the upstream riser platform and the offshore/onshore pipeline to deliver gas to Sajgas at 100% through its subsidiary UGTC. UGTC also has a joint venture with Emarat for a 32km onshore gas delivery pipeline and the processing plant (SajGas) at 100%, as shown in the chart below. The gas is sold under long-term agreements to governmental utility companies in the region, while any LPGs, condensate and sulphur are sold onto international markets.

UAE gas project

We do not include the UAE gas project in our valuation for Dana Gas; however, our analysis suggests this would add AED 0.5/share to our price target of AED 0.8/share



Source: Dana Gas

In 2001, Iran (NIOC) and the UAE (Crescent Petroleum) entered into a gas sales and purchase agreement (GSPA) whereby the price for Iranian imported gas is oil indexed with a fixed margin. It was reported that the increase in oil prices prompted a dispute between the parties over the gas price formula in the agreement since under the original GSPA the gas price would be ~\$7/mbtu based on the current oil price (*Emirates* 24/7, 15 September 2008, *Tehran Times*, 11 September 2008). This is higher than some other gas imports, for example, Qatar is currently selling gas to the UAE via its Dolphin project at ~\$1.5/mbtu. As such, the project, which was due to start up in 2006, has been delayed. However, the company suggests the delay in the project start-up relates to certain infrastructure, which is not yet in place on the Iranian side, and that there are no issues over the pricing formula in the GSPA. Nonetheless, since we do not have any visibility on start-up for this project, we do not include this project in our valuation for Dana Gas. Our detailed analysis on the project is shown in the following table and suggests the project is worth AED 0.5/share, which represents ~60% overall value to the company.

UAE gas project cash flow analysis and assumptions*

CNGCL (Dana Gas interest 35%)		Comments						
Gas procurement costs, \$/mcf	1.5	Based on similar price as Dolphin gas imports to the UAE						
Operating costs, \$/mcf	0.18	Nomura assumption						
Gas sales, \$/mcf	2.0	Assumes \$0.5/mbtu fixed margin						
Capacity mcf/d	550	Assumes shrinkage						
UGTC (Dana Gas interest 100%)								
Pipeline cost, \$ m	125	Includes 25% cost inflation	Results, (net to Dana Gas)					
Pipeline maintenance capex, \$m	2		CNGL NPV, \$m 702					
Pipeline tariff, \$/mcf	0.15		UGTC NPV, \$m 125					
			SajGas NPV, \$m 34					
			NPV, \$m 862					
			NPV, AEDm 3163					
			NPV per share 0.5					
SajGas (Dana Gas interest 100%)								
Processing plant cost, \$ mn	100							
Processing operating costs, \$/mcf	0.05	Dana Gas assumption						
Processing maintenance capex, \$m	8							
Long-run Brent price, \$/bl	75	Nomura oil price assumption						
LPG price, \$/bl	53	Assumes 30% discount to our long-term Brent assumption of \$75/bl						
Condensate price, \$/bl	71	Assumes 5% discount to our long-term Brent assumption of \$75/bl						
LPG volume, kbls/d	4	11 kbls/d gross (35% to Dana Gas)						
Condensate volume, kbls/d	1	2.5 kbls/d gross (35% to Dana Gas)						
Gas processing tariff, \$/mcf	0.10	Nomura assumption						
Capacity mcf/d	550	Assumes shrinkage						
Sulphur volume, tons per day	126	Source: SajGas						
Sulphur price, \$/ton	300	Nomura assumption						
WACC	11%							
Cash flow model, \$m	Total	2005	2006	2007	2008	2009	...	2027
Pipeline capex, \$m	(125)	(31)	(31)	(31)	(31)	0		0
Processing capex, \$m	(100)	(25)	(25)	(25)	(25)	0		0
Gas procurement costs	(2,002)	0	0	0	0	(105)		(105)
Wet gas revenue	2,670	0	0	0	0	141		141
Condensate revenue	151	0	0	0	0	8		8
LPG revenue	1,427	0	0	0	0	75		75
Sulphur revenue	92	0	0	0	0	5		5
Gas tariff	572	0	0	0	0	30		30
Processing tariff	381	0	0	0	0	20		20
Operating expense, \$m	(430)	0	0	0	0	(23)		(23)
Pre-interest operating cash flow \$m	2,861	0	0	0	0	151		151
Interest expense	0	0	0	0	0	0		0
Pre-tax operating cash flow \$m	2,861	0	0	0	0	151		151
Capex depreciation, \$m	(225)	0	0	0	(11)	(11)		(11)
Taxable profit, \$m	2,636	0	0	0	(11)	139		139
Post-tax cash flow, \$m	2,636	(56)	(56)	(56)	(56)	151		151

Note: *We include condensate, LPG and sulphur revenue and costs within CNGCL in our model since this entity has the contractual agreement for the sales where Dana Gas receives 35%, although we have shown our assumptions under SajGas.

Source: Company data, Nomura estimates

Earnings and cost assumptions

We have assumed a fixed gas price of \$2.65/mbtu in Egypt and not assumed any escalation in gas prices.⁴ We also assume LPG and condensate is sold at a 30% discount for LPG and a 5% discount for condensate to Brent. As we have previously published (*Global Oil Price Forecasts: Near-term weakness, long-term strength*, 13 November 2008), we expect oil prices to recover from current levels to \$75/bl in the medium term, a level that we believe reflects the average marginal cost of supply. We inflate DD&A per barrel by 10% pa and exploration expenses per barrel by 10% pa. We assume capex at \$265m in 2009, falling to \$195m in 2010 and \$130m from 2011 based on announced projects and company guidance.

Oil & gas price assumptions

	2009E	2010E	2011E	2012E	2013E
Condensate, \$/bl	57	62	71	71	71
LPG, \$/bl	42	46	53	53	53
Gas, \$/mbtu*	2.65	2.65	2.65	2.65	2.65

*For Egyptian gas only. We assume Kurdistan gas is essentially sold free of charge and Zora gas sold in line with current gas pricing in the UAE (~\$1.5-1.0/mbtu).

Source: Nomura estimates

Production outlook

Dana Gas' production growth was ~30% last year owing to the start-up of Khor Mor, and we expect this high-growth trend to continue in coming years, as shown in the following table. However, since Dana Gas still has more exploration drilling in Egypt and Kurdistan to complete, there may be upside potential to its long-term growth rate. Since the company is able to turn a discovery into commercial operations in a short timeframe, we have taken a conservative view and only included known projects and not assumed any new production from future exploration, ie, wells not yet drilled. We have conducted a project-by-project analysis of Dana Gas' medium-term production and highlight our assumptions below:

- We have not assumed any production decline since most of Dana Gas production is gas that tends to have lower decline rates than oil and assume any declines in Egyptian production are offset by exploration upside.
- We have taken a more conservative view on Dana Gas' production outlook and do not forecast total production as per-company targets. Project delays and conservative ramp-up periods are used for Kho Mor, Zora and El Basant-1. We do not include any contribution from Chemchemical in our outlook. We assume Salma-1 will start up late 2010/early 2011 and that LPG will be sold in the gas stream since we do not expect Dana Gas to invest in a new LPG facility.

⁴ For some projects in Egypt, the gas price is partly based on a % Brent and partly based on a fixed price of \$3.2/mbtu. For Dana Gas, gas pricing is on a sliding scale whereby the price is fixed at \$2.65/mbtu at oil prices >\$22/bl and lower prices for oil price bands between \$22-15/bl and <\$15/bl.

- For 2008-13, we forecast ~30% pa average production growth. We believe there is more upside potential to our outlook post 2010 should the company be able to develop new fields in Egypt and Kurdistan.

Dana Gas' production outlook

	2009E	2010E	2011E	2012E	2013E
Condensate, kboe/d	10	14	14	14	14
LPG, kboe/d	6	9	9	9	9
Gas, mcf/d	231	498	518	518	518
Total, kboe/d	55	100	104	104	104
Growth, y-o-y, %	40	81	4	0	0

Source: Company data, Nomura estimates

Accounting under IFRS

Dana Gas accounts are reported under International Accounting Standards, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. Dana Gas does provide segmental financial information based on its operations on a country-by-country basis, ie, UAE, Egypt and rest of the world. We have assumed most of Dana Gas operations are within the upstream segment.

Below the operating line, Dana Gas does have net financing items relating to its Sukuk issue, gains on fair value assets relating to appreciation of land owned and other income that relates to exploration licence sales. Dana Gas does not pay tax in the UAE, but the company reports a tax charge which relates to the fact that the Egyptian government receives production from Dana Gas in lieu of income tax and the company reports this production as a tax expense. We have assumed this tax rate is 53% in the medium term.

All tables on page 29 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)

AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Macro assumptions							
Gas Prices, \$/mbtu*	2.50	2.65	2.65	2.65	2.65	2.65	2.65
Brent, \$/bl	72.7	100.2	60.0	65.0	75.0	75.0	75.0
Condensate, \$/bl	69.0	95.1	57.0	61.8	71.3	71.3	71.3
LPG, \$/bl	50.9	70.1	42.0	45.5	52.5	52.5	52.5
Revenues							
Revenue	1,036	1,215	1,789	2,411	2,771	2,771	2,771
Royalties	(431)	(532)	(751)	(1,013)	(1,164)	(1,164)	(1,164)
Gross Margin	605	683	1,038	1,398	1,607	1,607	1,607
Cost of Goods Sold	(57)	(124)	(40)	(81)	(92)	(101)	(111)
Depreciation Expense	(241)	(301)	(404)	(623)	(711)	(782)	(860)
Net Operating Profit	307	258	593	695	804	724	635
Interest Income	35	97	100	100	100	100	100
Other Income	5	89	61	110	114	114	114
Gain on fair value	205	133	120	108	97	87	79
General & Admin	(81)	(78)	(40)	(82)	(95)	(107)	(120)
Exploration expense	(37)	(11)	(16)	(32)	(38)	(38)	(38)
Interest Expense	(153)	(263)	(249)	(295)	(311)	(306)	(299)
Net Profit Before Taxes	281	258	568	603	670	574	471
Taxation	(170)	(137)	(301)	(320)	(355)	(304)	(250)
Tax rate, %	60%	53%	53%	53%	53%	53%	53%
Net income before minority interest	111	120	267	284	315	270	222
Adjusted Net income	111	120	267	284	315	270	222
% change	0%	8%	122%	6%	11%	(14%)	(18%)
Adjusted EPS, AED	0.02	0.02	0.04	0.05	0.05	0.04	0.04
% change	0%	8%	122%	6%	11%	(14%)	(18%)

*Only Egyptian gas price shown. At time of publication Dana Gas has only provided preliminary 2008 results.

Summary balance sheet

AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders interest	7,107	7,227	7,494	7,777	8,093	8,362	8,584
Minorities	0	0	0	0	0	0	0
Short term debt	10	10	10	10	10	10	10
Long term debt	3,358	4,935	5,696	5,965	5,875	5,759	5,614
Cash	(1,983)	(789)	(789)	(789)	(789)	(789)	(789)
Net debt	1,385	4,156	4,917	5,186	5,096	4,980	4,835
Capital employed	8,492	11,383	12,411	12,963	13,189	13,343	13,419
Additional items							
Issued shares, yr end, m	6,000	6,000	6,000	6,000	6,000	6,000	6,000
NBV per share	1.18	1.20	1.25	1.30	1.35	1.39	1.43
Net debt/(cash) per share	1,385	4,156	4,917	5,186	5,096	4,980	4,835
	0.23	0.69	0.82	0.86	0.85	0.83	0.81
Balance Sheet Analysis							
Net debt to equity, %	19%	58%	66%	67%	63%	60%	56%
Net debt to capital, %	16%	37%	40%	40%	39%	37%	36%
RoAE, %	2%	2%	4%	4%	4%	3%	3%
RoACE, %	3%	2%	3%	3%	3%	3%	2%

Source: Company data, Nomura estimates.

Summary cash flow

AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Net income	111	120	267	284	315	270	222
DD&A	241	301	404	623	711	782	860
Deferred tax	0	0	0	0	0	0	0
Post tax interest charge on debt	47	77	70	92	99	97	93
Cash EBIDA	399	498	741	998	1,125	1,149	1,175
EBIDA per share	0.07	0.08	0.12	0.17	0.19	0.19	0.20
Less Post tax interest charge on debt	(47)	(77)	(70)	(92)	(99)	(97)	(93)
Other non-cash items	(96)	0	0	0	0	0	0
Changes in working capital	(89)	0	0	0	0	0	0
Operating cashflow	167	421	671	906	1,026	1,052	1,082
E&P Capex	536	1,109	973	716	477	477	477
Other Capex	0	459	459	459	459	459	459
Capex	536	1,568	1,432	1,175	936	936	936
Capex Growth	134%	192%	(9%)	(18%)	(20%)	0%	0%
Dividend	0	0	0	0	0	0	0
Net Cash Flow from operations	(369)	(1,147)	(761)	(269)	90	116	146
Non-recurring items							
Acquisitions	(638)	(600)	0	0	0	0	0
Divestments	0	170	0	0	0	0	0
Other	0	0	0	0	0	0	0
Surplus (deficit) from our line items	(1,007)	(1,577)	(761)	(269)	90	116	146
Other movements	46	0	0	0	0	0	0
Net cash surplus (deficit)	(961)	(1,577)	(761)	(269)	90	116	146

We expect Dana Gas to move into a net cash surplus by 2011

TAQA – Leverage to Abu Dhabi power

Stock rating	BUY
Price, 19 Feb	AED 1.1
Price target	AED 2.0
Upside potential, %	65
Market cap, AEDbn	8
Market cap, \$bn	2

Valuation	2009F	2010F
EPS	0.16	0.26
P/E	7.4	4.7
Div. Yield, %	8.1	8.6
EV/EBIDA, x	7.3	6.5

Performance, %	QTD	YTD
Absolute, \$	19	19
vs market	26	26

Asset mix by business, %	
E&P	50
R&M	0
Chems	0
Power	50
Total	100

Sales mix by region, %	
US	20
Europe	30
GCC	50
Asia	0
Total	100

EBIT mix by business, %	
Upstream	55
Downstream	45
Total	100

Catalyst dates	
Buy back initiated	1H09
Dividend announced	2Q09

TAQA is the Abu Dhabi government's conduit into the global energy sector. TAQA's main focus is to invest in companies involved in the production and storage of natural gas and liquid hydrocarbons, power generation, and water desalination and renewable energy. The company's upstream activities are concentrated mainly in North America and Europe, while the power generation facilities are mainly in the UAE. The company's free float is 28%, although ownership is restricted to UAE nationals only.

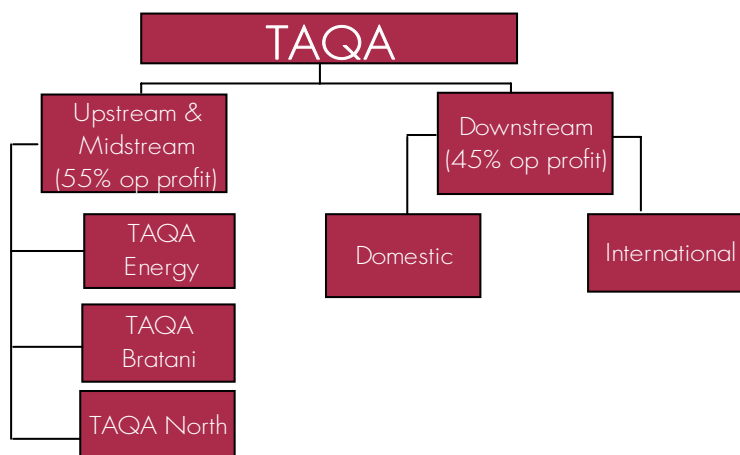
Brief history

2005	Established by Emiri Decree (16/2005) with ADWEA as 100% shareholder
2005	IPO of 24.9% shares on Abu Dhabi stock exchange and 24.2% private placement
2007	Acquires Talisman's Brae assets for \$550m
2007	Acquires BP Nederland Energie for ~\$700m
2007	Acquires CMS and ABB power assets for ~\$1.2bn
2007	Acquires Northrock Resources for \$2bn
2007	Acquires Pioneer Canada for \$540m
2007	Acquires Prime West for \$4.7bn
2008	Signs strategic partnership with Theolia for wind projects in Morocco
2008	Acquires EnCore Oil Nederland for \$5.5m
2008	Divests part interests in Shuweihat power business to Sumitomo
2008	Signs farm-in exploration agreement with Cirrus Energy in Dutch North Sea
2008	Established JV with Semptra (TAQA Gen X) for downstream investments in N America
2008	Acquires North Sea assets from Shell and Exxon Mobil for \$631m
2009	Acquires 50% stake in Marubeni's Caribbean power portfolio

Source: Company data, Nomura research

TAQA's main activities are to produce and sell oil and gas into international markets from its upstream operations in Europe and North America as well as generate and sell electricity from its JVs mainly in Abu Dhabi. In the medium term, TAQA's strategy is to acquire upstream and power generation assets with the aim of creating a company with \$60bn "assets under management" by 2012. The diagram below shows TAQA's structure.

Corporate structure schematic



Note: Only the main functions are shown for simplicity, operating profit split based on 9M08 data.

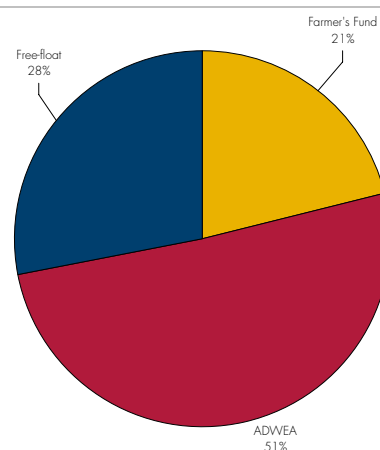
Source: Company data, Nomura estimates

TAQA's largest division is its exploration and production (upstream) business, which accounts for ~50% of its assets and 55% of operating profit. We have included the midstream segment, which mainly relates to TAQA's gas storage business in the Netherlands into the upstream. The downstream segment is responsible for power generation and water desalination, and contributes ~50% of its assets and approximately 45% of operating profit, although we would expect this contribution to increase in a lower oil price environment.

Shareholder structure

The Abu Dhabi government⁵ essentially owns directly or indirectly 72% of TAQA's shares with 28% free float, which is restricted only to UAE nationals.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Peter Barker-Homek, CEO. Mr Barker-Homek is Chief Executive Officer and joined TAQA in May 2006. Prior to joining TAQA, he was a senior advisor within BP's M&A team as well as holding positions within BG and Merrill Lynch.

Doug Fraser, CFO. Mr Fraser joined TAQA in January 2008 post TAQA's Prime West acquisition where he was CFO. He has previously held positions within Imperial Oil and Petro Canada.

Frederic Lesage, MD TAQA North. Mr Lesage manages TAQA's North American operations having previously worked as TAQA's VP Integration & Optimisation, where he worked with new management teams from TAQA's acquisitions. He joined TAQA in February 2007 and previously has held positions within McKinsey.

⁵ Abu Dhabi's Farmer's fund relates to a pension fund aimed at replacing farming subsidies for the emirate.

Daniel Dexter, VP Global Power. Mr Dexter manages TAQA's power business and joined the company in May 2007. He has held management positions within a variety of independent power businesses.

Klaus Reinisch, Head of Midstream. Mr Reinisch manages TAQA's gas storage business and joined the company in December 2007 having set up Gazprom Marketing and Trading business in Europe.

Paul van Gelder, MD TAQA Energy and Bratani. Mr van Gelder manages TAQA's Dutch and North Sea upstream assets. Prior to joining TAQA in February 2007 he worked for BP.

Sum-of-the-parts NAV – Benefits from acquisitions

We initiate with a Buy rating and a price target of AED 2.0/share

Our valuation approach for TAQA is our sum-of-the-parts net asset value, whereby we calculate a DCF-based value for each business segment. A detailed explanation of our valuation methodology is highlighted in Appendix 2. Using this approach, we derive a share price target of AED 2.0/share, which indicates to us that TAQA shares provide 65% potential upside.

TAQA discloses financial information on its business segments, which are the “oil & gas” business and “power & water” business. For the oil & gas segment, we model production from fields brought onstream over the next five years for TAQA assets mainly in the North Sea and Canada, and we value unproven resources on a per-barrel basis. We assume capital continues to be invested for the next five years, after which we decline the production profile over a 30-year period. The associated cash flows drive our segment DCF valuation. Reserves not developed within five years are valued on a dollars-per-barrel basis with probable reserves at 50% of proved reserves and 10% for possible/technical resources. For the power & water, we forecast cash flows to 2014 then apply a 0.5% terminal growth rate. We include TAQA’s gas storage business within the upstream segment. The key assumptions employed within our NAV analysis are detailed below.

Key NAV assumptions

Assumptions		Notes
Average cash flow, \$/boe	20.4	Average 2009-13
Number of ordinary shares, m	6225	
Proven reserves, mboe	405	Assumed based on data from acquired companies
Probable reserves, mboe	740	Company guidance
Technical reserves, mboe	50	Conservative assumption
Discount rate	10.5%	TAQA discount rate assumption
Power generation at terminal year, MW	6,866	Does not include TAQA’s Caribbean acquisition
Terminal growth for power valuation	0.5%	
Exchange rate, AED/\$	3.67	

Source: Nomura estimates

Net asset value

*Our NAV calculation gives a valuation
of AED 2.0/share*

	m boe	\$/boe	\$m	\$m	\$ per share
Upstream					
Production onstream by 2013	1,275	\$7.5	9,586		1.5
capex on development			(3,040)		(0.5)
Undeveloped P+P reserves	795	\$2.6	2,042		0.3
Technical reserves	50	\$0.5	26		0.0
Upstream total	2,120	4.06		8,613	1.4
Downstream (power)					
			2014 cash flow	861	
			PV of explicit cash flow (09-14)	3,991	
			PV of continuing value	4,717	
Downstream total				8,707	1.4
Gross asset value					
				17,321	2.8
Net debt				(14,570)	(2.3)
Minorities	Book value		286	572	0.1
	Multiple		2		
Net asset value				3,323	0.5
Total value					
				3,323	0.5
Shares outstanding					6,225
NAV/share, AED					2.0

Source: Nomura estimates

Higher sensitivity to oil prices than Dana Gas

We estimate TAQA's medium-term upstream production growth is 6% pa in 2009-13, driven by acquisitions. This production is mainly from North America and the North Sea essentially split 50:50 oil and gas. While we see TAQA as partly defensive to oil prices owing to its power exposure, we estimate that the company still has a higher sensitivity to oil prices than Dana Gas. The table below highlights TAQA's sensitivity between production growth and oil prices.

Sensitivity analysis with oil prices and production growth to our price target

*TAQA is more sensitive to oil prices
than Dana Gas owing to its production
in North America and the North Sea*

Oil price	Medium-term production growth, %									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	
20	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	
30	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	
40	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	
50	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	
60	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	
70	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	
80	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	
90	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.7	
100	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	
110	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.1	
120	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3	

Source: Nomura estimates

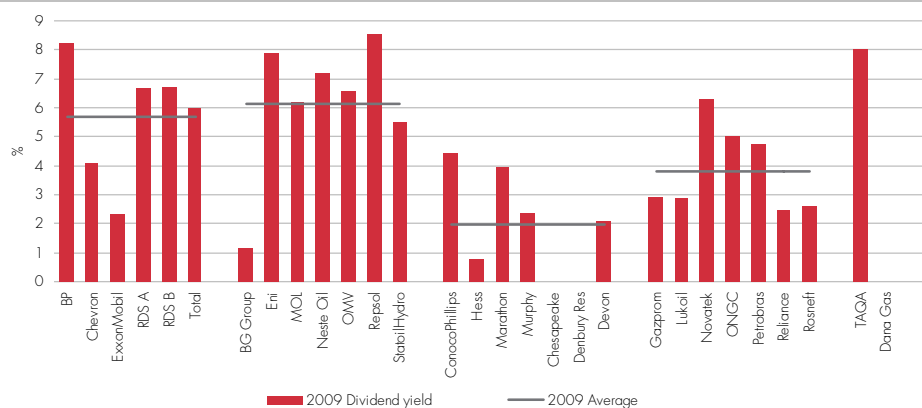
Attractive valuation multiples

In addition to our NAV valuation, we have compared TAQA with what we consider to be its global peer group, the oil and gas exploration and production companies, on a variety of valuation multiples.⁶ We have also included TAQA's multiples with the global utility companies on page 144. Our conclusions:

- TAQA trades on 7.3x EV:EBIDA for 2009F, which is a 30% discount to Dana Gas, its closest Middle East peer, and in line with the global and emerging market exploration and production companies' average at 7.2x.
- Free cash flow yield is ~30%, which is competitive with most other global and major oil companies. We have assumed organic capex growth at ~14% pa in the medium term. However, TAQA has suggested that its upstream capex of ~\$500m in 2009 can be reduced if oil prices fall to a level that means production is not economic.
- TAQA's dividend yield of 8.1% is higher than many of the major oil companies, as shown in the chart below. The company does not have a specific payout policy, although we expect TAQA to maintain the absolute dividend level going forward.
- Average EPS growth is 28% 2009-13F for TAQA, similar to Dana Gas. This reflects the contribution from TAQA's acquisitions and our expectation of higher power margins from its Abu Dhabi power market.

TAQA's dividend yield relative to other global oil companies

TAQA's dividend yield is competitive with most other international oil companies



Note: Dana Gas does not currently pay a dividend.

Source: Datastream

⁶ We have compared TAQA with a series of companies that we consider a global peer group since these firms have similar oil/gas bias or asset bases to TAQA. See Relative valuation multiple charts - Upstream and downstream. We have also included TAQA in our utility benchmarking.

Key positives

- **Valuation attractive:** TAQA trades on 7.3x EV:EBIDA in 2009F, a 30% discount to Dana Gas, its closest Middle East peer, and in line with the global and emerging market exploration and production companies' average at 7.2x. We believe this does not fully reflect the company's partly defensive nature owing to its exposure to the high-margin Abu Dhabi power market in the current oil price environment or the growth potential from its newly acquired assets.
- **High dividend yield:** TAQA's dividend yield at 8.1% is higher than many of the major oil companies. The company does not have a specific payout policy, although we expect TAQA to maintain the absolute dividend level (AED 0.1/share) going forward.
- **Power market remains tight:** We expect the Abu Dhabi power market to be tight in the medium term owing to the higher proportion of government offices and the overall tightness in the real estate market in Abu Dhabi unlike the slowdown being experienced in Dubai, where the market is more exposed to speculative real estate and fewer government entities. With ~50% of TAQA's assets geared to power mainly in Abu Dhabi, we see the power fundamentals as supportive to TAQA's power business and margins in the medium term.
- **Secured offtake:** TAQA's power plants have no feedstock or offtake risks as gas is supplied mainly by ADNOC, Abu Dhabi's national oil company, and government entities typically buy the electricity. This ensures regular and stable cash flows for the company, which we believe are supportive in a volatile oil price environment.
- **Acquisition strategy:** We believe that TAQA's management has taken a cautious approach to acquisition targets. For example, TAQA's average acquisition cost per barrel of proven and probable reserves is ~\$13/boe, in line with the global average over the 2007-08 period. Having recently acquired a 50% stake in Marubeni's Caribbean power assets, we believe that TAQA's next acquisition target is likely to be power assets in North America and in Saudi Arabia.

Key negatives

- **Liquidity and market risks:** With the UAE stock markets partly dominated by real estate, the continued weakening in this sector has given rise to money being allocated out of equities into supporting real estate investments or liquidating equity positions following a weakening economic trend within the UAE. This together with TAQA's liquidity on the Abu Dhabi stock market being relatively limited in terms of traded volumes⁷ compared with many other companies on the market may inhibit new investors taking large positions in the stock or lead to underperformance unrelated to the robust fundamentals of TAQA's business.
- **New asset integration:** TAQA has made six key upstream acquisitions since it was established in 2005, with the largest being Prime West. The company has tended to retain key staff from these transactions, and we expect further deals this year. While we have confidence in the management team, there may be some operational risks associated with the integration of existing and new assets into the TAQA portfolio in the future.⁸
- **Lower oil prices:** We expect oil prices to average \$60/bl in 2009F, a \$37/bl fall compared with 2008. With oil prices having averaged \$45/bl so far in 2009, TAQA's upstream portfolio is based on prices around \$40/bl and \$4/mbtu for gas (*Emirates Business* 24/7, 20 January 2009), the company may need to shut in wells that are not economic at oil prices below these levels. If oil prices remain below \$40/bl, we would reduce our 2009-13F EPS by an average of 20-25%.
- **High gearing:** TAQA is highly geared (net debt to capital ~80%). The company has used its AA- (S&P) credit rating to access competitive borrowing rates for past acquisitions. Many ratings agencies have cited the positive rating owing to the government holding in the company. However, the balance between TAQA conducting a further placing with the possibility of improving stock liquidity and the sell-down of the government affecting TAQA's credit rating mean this is unlikely in the medium term.

⁷ For example, average volumes of shares traded for TAQA each month in 2008 was 5.9m relative to 28.4m for Dana Gas.

⁸ It could be argued that the operational problems that have beset BP during the middle of this decade have partly been due to the lack of asset integration from its Arco/Amaco deals in the late 1990s leading to lower returns (avg 18% 00-07). In comparison, the transaction between Exxon and Mobil seem to have integrated its asset base more effectively (avg 28% 00-07). Source: Global Integrated Oil Benchmarks, Lehman Brothers 14 September 2007

Leverage to Abu Dhabi power

TAQA has historically been a power-based company in Abu Dhabi but has expanded into the European and North American upstream sector via acquisitions. The proportion of assets from power is ~50%, which contributed 45% of operating profit in 2008. TAQA's exposure to the tight Middle East power sector means that the company is partly defensive in a low oil price environment, although it has the flexibility in its upstream operations to capture higher margins should oil prices recover. We highlight the key factors in our investment for TAQA below.

Defensive from power exposure

TAQA estimates ~50% of the asset portfolio is unaffected by the fall in oil prices owing to the company's power exposure

TAQA's domestic power generation capacity accounts for 49% of the Abu Dhabi power sector and its relationship with ADWEA, Abu Dhabi's utility company, means that it is likely to enter into new power generation projects within the Emirate. The company's generation capacity is 6.2 GW including non-UAE assets, as detailed in the table below, and we estimate will represent ~65% of total operating profit in 2009 owing to the fall in oil prices. Unlike pure upstream companies, TAQA's power exposure makes it partly defensive to the fall in oil prices and weakening demand for oil. TAQA's power plants have no feedstock or offtake risks as low-priced gas is supplied mainly by ADNOC, Abu Dhabi's national oil company, and government entities typically buy the electricity.

TAQA's power portfolio

TAQA's power contract structure means the company has limited feedstock and offtake risks

Domestic	Interest, %	Net capacity at end 2008, MW
Taweelah A2	54	412
Taweelah A1	54	764
Taweelah B	54	1198
Shuweihat	54	810
Umm al Nar	54	837
Fujairah	54	346
Total		4367
International		
Jorf Lasfar (Morocco)	100	1,320
Neyveli (India)	100	228
Takoradi (Ghana)	90	190
Jubail (Saudi Arabia)	25	62
Total		1,799

Note: TAQA will start up a 300MW wind farm with Theolia in Morocco in 2009. TAQA's Caribbean acquisition is not included (implied additional 1,150MW capacity, net to TAQA).

Source: Company data

Abu Dhabi power market remains tight

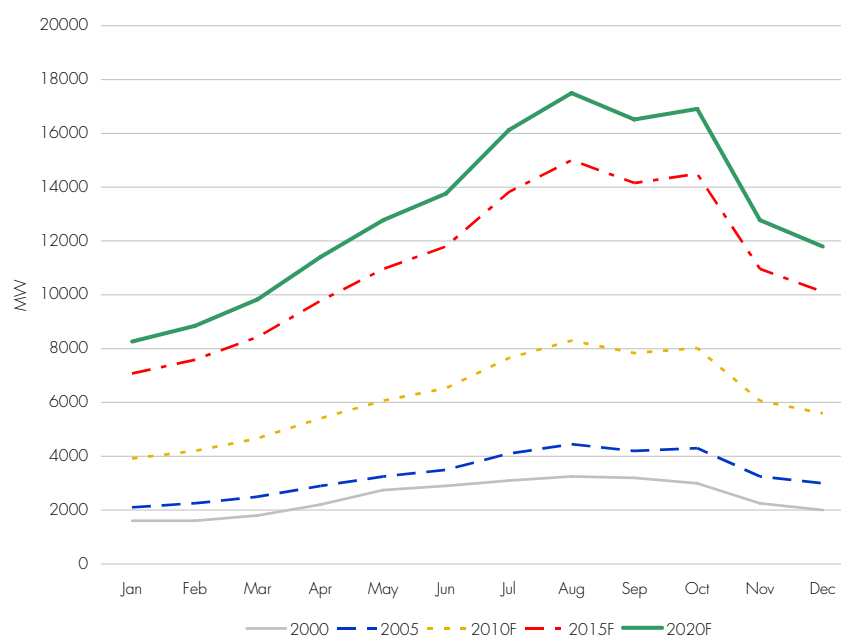
Seasonality in power offtake means TAQA can benefit from higher power earnings in the summer period in the downstream, while higher earnings would be expected from its upstream in the winter heating period

Our analysis suggests demand for electricity will slow down within the UAE, although we believe some Emirates such as Abu Dhabi will remain robust. The Abu Dhabi market is characterised by power demand peaking in the cooling-driven summer months, which is typically greater than twice the level of winter demand, and managing peak demand is still a challenge for the Emirate, as shown in the following chart. We forecast Abu Dhabi's power demand growth at 6%, only slightly lower than the five-year historical average of 8%; however, we still believe there will be challenges for the region to manage peak

demand in the summer period. Our thesis relies on the fact that Abu Dhabi has a higher proportion of government offices and was late to liberalise the real estate market relative to the slowdown of real estate being experienced in Dubai, where the market is more exposed to speculative “flipping” of property investments and fewer government entities. This we see as supportive to TAQA’s power business and margins in the medium term. Interestingly, Abu Dhabi exported power to Dubai in 2007 but did not in 2008 as both Emirates were unable to agree on suitable pricing terms. This may highlight that Abu Dhabi is not willing to provide electricity at lower margins to its neighbour as well as having robust demand at acceptable margins domestically.

Abu Dhabi, like other GCC power markets, is characterised by its peak demand over summer months owing to air conditioning demand

Evolution of Abu Dhabi’s peak cooling demand



Source: ADWEA, Nomura estimates

For more detail on the UAE power market and our market analysis see Appendices 3 and 4.

Prudent acquisition strategy

TAQA’s strategy is based on building a business with \$60bn assets by 2012 split by \$20bn in North America, Europe and MENA (Middle East and North Africa) regions. The company’s aim is to have a balanced portfolio of power, gas and upstream assets, although it is not interested in refining or oil service businesses. TAQA has made six key upstream acquisitions since it was established in 2005 with many of these transactions aimed at building its upstream business. Despite the increase in oil prices, these upstream transactions have been contracted at attractive valuations relative to similar deals. TAQA averaged \$13.1/boe on a 2P basis, essentially the same as the industry average, as shown in the following table, which includes all conventional hydrocarbon transactions globally. This may reflect TAQA’s ability to act quickly and use its major shareholder as both financial and, perhaps, political supporter. Apart from TAQA’s recent Caribbean power acquisition, we expect the company to focus on North American power assets in

the future as returns have improved in the North American power sector, TAQA has cash to act as a buyer of distressed assets and it is consistent with the company's strategy to grow power generation to 15GW by 2012. We also expect the company to increase its presence in the Saudi Arabian power sector owing to the tight market. TAQA has indicated that energy investments within the \$2bn-4bn range are possible in 2009 (*Khaleej Times*, 20 January 2009).

TAQA's upstream transactions

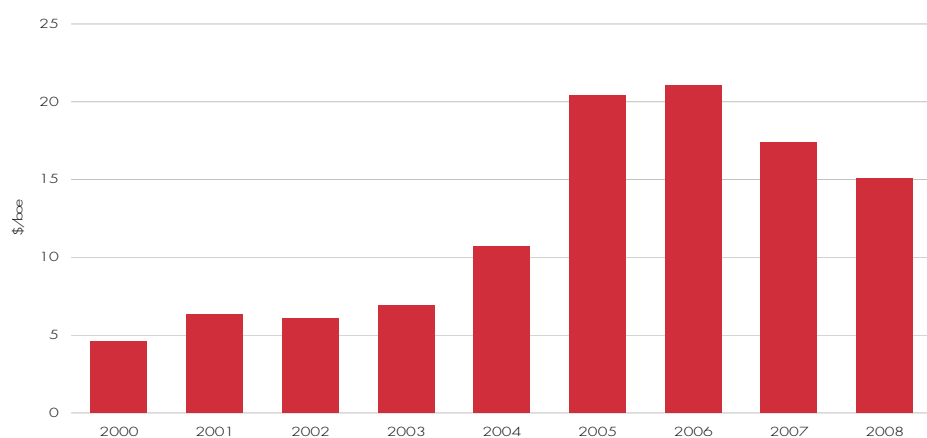
Transaction	Date	Value, \$m	2P Reserves, mboe	Transaction per barrel, \$/boe
Talisman's North Sea assets	1Q07	550	34	16.2
Northrock Resources	2007	2000	141	14.2
Pioneer Canada	3Q07	540	59	9.2
Prime West	3Q07	4700	285	16.5
Exxon/Shell's North Sea assets	4Q08	631	123	5.1
Total		8421	642	
Weighted average				13.1
Global 2P average, 07-08				13.2

Source: Herold, Nomura estimates

Low asset prices to benefit strategy

The fall in global commodity prices has resulted in more opportunities for TAQA, in our view. Previously, competition for power and upstream assets was a challenge as companies looked for new assets to improve growth or enter new markets (for example, Eni and Mauriel et Prom's Congolese assets or Statoil and Encana/Anadarko's US Gulf of Mexico assets). However, the financial crisis and lower commodity prices have made some companies pause either to focus on cost cutting or assess the need to sell non-core businesses and, hence, reduced competition for TAQA's potential acquisition targets regionally such as North America, Europe and MENA. We see current valuations for both power and upstream assets as a benefit to TAQA acquisition strategy in reaching its asset target in the medium term. The chart below shows the trend in upstream deals as an example.

Upstream transaction values for 1P reserves



Source: Herold

Asset prices have fallen recently, which may provide opportunities for TAQA to acquire attractive or distressed assets in the both the upstream and power sectors

Earnings and cost assumptions

We assume net sales prices in \$/boe for each of TAQA's upstream businesses, shown below, with a discount to our Brent oil price assumption which we have previously published (*Global Oil Price Forecasts: Near-term weakness, long-term strength*, 13 November 2008). This accounts for any royalties that may apply to production barrels, for example, in the UK North Sea. In the medium term, we expect oil prices to recover to over \$60/bl, which we believe reflects the average marginal cost of supply, from current levels. We inflate DD&A by 10% pa. We assume upstream capex at \$650m in 2009 and inflate by 10% pa to reflect some cost inflation within the service sector.

Net sales prices, \$/boe

	2009E	2010E	2011E	2012E	2013E
TAQA North	32	35	40	40	40
TAQA Bratani	30	33	38	38	38
TAQA Energy	33	36	41	41	41

Source: Company data, Nomura estimates

For the power business (downstream), we assume revenue per MW based on 2008 data and then inflate this figure by 10-8% pa to reflect our expectation of tariff growth within the Abu Dhabi market. The main expenses are repairs and maintenance, which we increase by 12% pa. We inflate DD&A by 5% pa and capex by 20% pa based on TAQA's forthcoming projects and company guidance. We have not included TAQA's recently announced share buy-back plan.

Production outlook

TAQA's oil & gas medium-term production growth has been helped mainly by acquisitions, for example, the acquisition of Exxon and Shell's North Sea assets. We have conducted a project-by-project analysis of TAQA's medium-term production and highlight our assumptions below:

- We assume a 4% decline in production at TAQA North for oil and gas to reflect some improvement in decline rates historically observed in the region (>10% pa) and no decline from 2011 to reflect the improvement in oil price and availability of rigs from the oil service sector.
- We take a more conservative view on TAQA's acquisition of Exxon and Shell's North Sea assets and only expect TAQA Bratani to ramp up to 72kboe/d by 2013 as we do not include the full contribution from Exxon and Shell's North Sea assets (TAQA's guidance is these assets will contribute 60kboe/d by 2012 to TAQA Bratani).
- For 2009-13, we forecast 6% pa average oil & gas production growth. We believe there is more upside potential to our outlook post 2010 as the company may make further upstream acquisitions.

- For power, we assume TAQA's interest in the Fujairah Extension in 2009 and the Taweelah A10 Extension Project Plant in 2010. We also assume Fujairah phase II project will include TAQA as a partner.
- For 2008-13, we forecast 3% pa average power production growth. We have not included any additions to TAQA's international power portfolio.

TAQA oil & gas and power production outlook

Oil & gas	2009E	2010E	2011E	2012E	2013E
Total, oil+NGL, kbls/d	70	72	77	80	83
Total, gas, kboe/d	83	83	84	82	80
Total oil & gas, kboe/d	154	155	161	161	163
change y-o-y, %	23	1	4	0	1
Power					
Domestic, MW	4431	4527	5067	5067	5067
International, MW	1799	1799	1799	1799	1799
Total power generation	6231	6326	6866	6866	6866
change y-o-y, %	1	2	9	0	0

Source: Company data, Nomura estimates

Accounting under IFRS

TAQA accounts are reported under International Accounting Standards, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. TAQA does provide segmental financial information based on its upstream & midstream and downstream operations, which we have used as the basis for our earnings forecast.

Below the line, TAQA does have net financing items, which mainly relate to loans and other debt instruments associated with its previous acquisitions. TAQA's tax expense mainly reflects its operations in North America and Europe. We have assumed a tax rate of 37% to take into account TAQA's acquisitions in the UK North Sea.

All tables on page 43 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)

AED, m	2007A	2008E	2009E	2010E	2011E	2012E	2013E
Net sales price, \$/bl							
TACA North	-	55	32	35	40	40	40
TACA Bratani	-	43	30	33	38	38	38
TACA Energy	-	55	33	36	41	41	41
Power revenue AED per MW	-	0.9	1.0	1.0	1.1	1.2	1.3
Revenues							
Revenue from Oil & Gas	1,121	8,005	6,504	7,068	8,458	8,476	8,526
Revenue from electricity & water	4,717	5,318	6,001	6,642	7,786	8,409	9,081
Supplemental fuel income	2,027	2,783	3,117	3,491	3,491	3,491	3,491
Gas storage revenue	303	591	680	782	899	1,034	1,189
Other operating income	169	246	320	416	541	703	914
Gross revenues	8,337	16,943	16,623	18,399	21,174	22,112	23,201
Operating costs							
Staff costs	(67)	(238)	(471)	(542)	(650)	(745)	(855)
Repairs maintenance	(1,090)	(1,608)	(2,025)	(2,291)	(2,721)	(3,054)	(3,434)
Gas storage expenses	(1,29)	(370)	(646)	(728)	(847)	(952)	(1,074)
Fuel expenses	(1,987)	(2,590)	(2,500)	(2,700)	(3,105)	(3,105)	(3,105)
Depreciation Expense	(1,428)	(3,320)	(3,838)	(4,202)	(4,799)	(5,228)	(5,715)
Other operating charges	(186)	(1,040)	(1,567)	(1,580)	(1,663)	(1,668)	(1,677)
Gross Profit	3,450	7,777	5,576	6,357	7,389	7,361	7,341
Administrative & other expenses	(409)	(725)	(300)	(300)	(300)	(300)	(300)
Net interest income	(1,961)	(3,468)	(3,404)	(3,234)	(3,024)	(2,751)	(2,480)
Finance costs	(2,529)	(3,670)	(3,625)	(3,477)	(3,292)	(3,045)	(2,804)
Interest Income	568	201	221	243	268	295	324
Changes in fair value derivatives	(44)	(49)	0	0	0	0	0
Foreign Exchange Gain/Loss	78	231	231	231	231	231	231
Income from Associates	25	66	73	80	88	97	107
Other Income	178	47	51	56	62	68	75
Net Profit Before Taxes	1,318	3,877	2,227	3,190	4,445	4,706	4,974
Taxation	57	(1,501)	(824)	(1,180)	(1,645)	(1,741)	(1,840)
Tax rate, %	(4%)	39%	37%	37%	37%	37%	37%
Net income before minority interest	1,376	2,377	1,403	2,010	2,801	2,965	3,133
Minority interest	(341)	(362)	(380)	(399)	(419)	(440)	(462)
Adjusted Net income	1,035	2,015	1,023	1,611	2,381	2,525	2,671
% change	113%	95%	(49%)	57%	48%	6%	6%
Adjusted EPS, AED	0.25	0.40	0.16	0.26	0.38	0.41	0.43
% change	113%	61%	(59%)	57%	48%	6%	6%
DPS, AED	0.10	0.10	0.10	0.10	0.11	0.12	0.13
Payout ratio, %	40%	25%	60%	40%	30%	30%	30%
% change	100%	0%	(2%)	5%	11%	6%	6%

At time of publication TACA have only provided preliminary 2008 results.

Summary balance sheet

AED, m	2007A	2008E	2009E	2010E	2011E	2012E	2013E
Shareholders interest	7,079	8,590	10,101	11,612	13,123	14,634	16,145
Minorities	1,050	1,050	1,050	1,050	1,050	1,050	1,050
Short term debt	4,692	4,692	4,692	4,692	4,692	4,692	4,692
Long term debt	47,044	49,039	47,156	44,799	41,661	38,588	35,614
Cash in hand	(7,601)	(7,601)	(7,601)	(7,601)	(7,601)	(7,601)	(7,601)
Net debt	44,135	46,130	44,248	41,891	38,752	35,679	32,705
Capital employed	52,264	55,770	55,399	54,553	52,925	51,363	49,900
Additional Items							
Issued shares, yr end, m	4,150	5,018	6,225	6,225	6,225	6,225	6,225
NBV per share	1.7	1.7	1.6	1.9	2.1	2.4	2.6
Net debt/(cash) per share	44,135	46,130	44,248	41,891	38,752	35,679	32,705
	10.6	9.2	7.1	6.7	6.2	5.7	5.3
Balance Sheet Analysis							
Net debt to equity, %	623%	537%	438%	361%	295%	244%	203%
Net debt to capital, %	84%	83%	80%	77%	73%	69%	66%
RoAE, %	15%	26%	11%	15%	19%	18%	17%
RoACE, %	10%	9%	7%	8%	9%	9%	10%

Summary cash flow

AED, m	2007A	2008E	2009E	2010E	2011E	2012E	2013E
Net income	1,035	2,015	1,023	1,611	2,381	2,525	2,671
DD&A	1,428	3,320	3,838	4,202	4,799	5,228	5,715
Minorities	341	362	380	399	419	440	462
Deferred tax	245	(698)	0	0	0	0	0
Post tax interest charge on debt	2,639	2,249	2,284	2,191	2,074	1,919	1,766
Cash EBIDA	5,687	7,248	7,525	8,402	9,673	10,111	10,615
EBIDA per share	1.4	1.4	1.2	1.3	1.6	1.6	1.7
Less Post tax interest charge on debt	(2,639)	(2,249)	(2,284)	(2,191)	(2,074)	(1,919)	(1,766)
Other non-cash items	1,836	2,300	1,000	1,000	1,000	1,000	1,000
Changes in working capital	(962)	(121)	(121)	(121)	(121)	(121)	(121)
Operating cashflow	3,923	7,178	6,120	7,091	8,478	9,072	9,727
Upstream Capex	(2,680)	(1,240)	(2,387)	(2,625)	(2,888)	(3,177)	(3,495)
Downstream Capex	(2,696)	(947)	(1,137)	(1,364)	(1,637)	(1,964)	(2,357)
Capex	(5,376)	(2,188)	(3,524)	(3,990)	(4,525)	(5,141)	(5,852)
Capex Growth	0%	(59%)	61%	13%	13%	14%	14%
Dividend	(208)	(415)	(614)	(644)	(714)	(757)	(801)
Dividend to minorities	(78)	(100)	(100)	(100)	(100)	(100)	(100)
Net Cash Flow from operations	(1,739)	4,475	1,882	2,357	3,139	3,073	2,974
Non-recurring items							
Acquisitions	(18,656)	(17,988)	0	0	0	0	0
Divestments	235	640	0	0	0	0	0
Other	0	0	0	0	0	0	0
Share repurchase	0	0	0	0	0	0	0
Surplus (deficit) from line items	(20,159)	(12,873)	1,882	2,357	3,139	3,073	2,974
Other movements	12,186	10,878	0	0	0	0	0
Net cash surplus (deficit)	(7,973)	(1,995)	1,882	2,357	3,139	3,073	2,974

Petro Rabigh – Awaiting project delivery

Stock rating	NEUTRAL
Price, 18 Feb	SAR 21
Price target	SAR 27
Upside potential, %	29
Market cap, SARbn	18
Market cap, \$bn	5

Valuation	2009F	2010F
EPS	1.3	4.0
P/E	15.7	5.2
P/B	2.0	2.0
EV/EBIDA, x	12.2	6.3

Performance, %	QTD	YTD
Absolute, SAR	35	35
vs market	36	36

Asset mix by business, %	
E&P	50
R&M	50
Chems	0
Other	0
Total	100

Sales mix by region, %	
US	0
Europe	28
GCC	18
Asia	54
Total	100

Earnings mix by business, %	
Refining	35
Chemicals	65
Total	100

Catalyst dates	
Start-up of Petchem units	2Q09
EPC award for phase II	4Q09

Petro Rabigh is one of the world's largest integrated refining and petrochemical companies located north of Jeddah on the Red Sea coast. The listed company was formed as a refinery upgrade and petrochemical expansion of the existing Rabigh refinery. This reflects Saudi Arabia's strategy to diversify its economy away from upstream activities and create employment through the creation of industrial cities. The company is a joint venture between Saudi Aramco and Sumitomo Chemical with a free float of 25%, although this is only available to GCC investors.

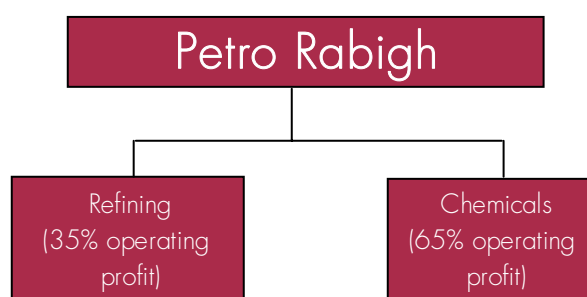
Brief history

1989	Rabigh refinery established by Saudi Aramco
2007	Petro Rabigh company established by Saudi Aramco and Sumitomo Chemical
2008	IPO on Saudi Arabia's Tadawul and takeover of Rabigh refinery from Saudi Aramco
2009	Start up of upgraded refinery and petrochemical complex

Source: Company data, Nomura research

Petro Rabigh's activities are to process and refine crude oil to oil products for export to international markets. The company also has integrated petrochemical units that produce ethylene derivatives (mainly polyethylene and polypropylene) from refinery feedstocks and ethane to be sold onto international markets. In the medium term, Petro Rabigh's strategy is to start up its new facilities, which are an upgrade development of Saudi Aramco's existing Rabigh refinery with the possibility of further expansion next decade. The diagram below shows how Petro Rabigh is currently structured.

Corporate structure schematic*



Note: *Only the main functions are shown for simplicity. Operating profit split is based on our estimate for 2010 when the complex will be fully operational.

Source: Company data, Nomura estimates

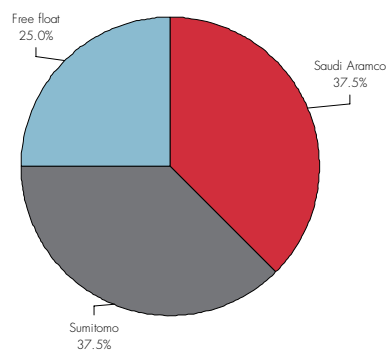
Activities

Petro Rabigh's refining segment is responsible for the processing of crude oil (Arab light/medium) obtained under a long-term agreement with Saudi Aramco. This may contribute ~35% of operating profit in 2010. The chemicals segment obtains low-cost ethane and butane feedstock under long-term sales and purchase agreements with Saudi Aramco and accounts for ~65% of operating profit.

Shareholder structure

Saudi Aramco (Saudi Arabia's state-owned national oil company) and Sumitomo Chemical each own 37.5% of Petro Rabigh's shares with the remaining free float.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Saad Fahad Al-Dosari, CEO and President. Saad Fahad Al-Dosari has been a member of the board of directors since late 2005. Prior to joining Petro Rabigh, he spent 30 years in Saudi Aramco on various projects including Ras Tanura Refining and Modernization Project Department. He is a Saudi national and started his career as an engineer.

Toshiki Matsumura, CFO. Matsumura-san has been a member of the board of directors since 2005. He started his career with Sumitomo in 1975 and was seconded to various petrochemicals companies in Singapore from 1987. He is Japanese and qualified in Law.

Yasuhiko Kitaura, Manufacturing Snr VP. Kitaura-san has been seconded to Petro Rabigh since 2005 having worked in Sumitomo Chemical since 1974. Prior to Petro Rabigh, he held a variety of roles in gas and petrochemicals manufacturing, operations and planning. He is Japanese and started his career as an engineer.

Abdulaziz Mutwalli, Engineering VP. Mr Mutwalli is heading the engineering department having previously worked for Saudi Aramco since 1993 where he held a series of senior manufacturing and operations roles. He is a Saudi national and an engineer.

Noriaki Takeshita, Market Development VP. Takeshita-san has been seconded to head the market development division of the Petro Rabigh since 2005. He has previously worked for Sumitomo since 1982 where he was Deputy Manager for Sumitomo's Planning and Coordination office in the petrochemicals and plastics sector. He is Japanese and qualified in law.

Sum-of-the-parts NAV – upside on project start-up

We initiate with a Neutral rating and a price target of SAR 27/share

Our valuation approach for Petro Rabigh is our sum-of-the-parts net asset value, which provides the basis for our share price target. Our approach uses a discounted cash flow methodology to value each business segment – refining and chemicals – and deduct balance sheet liabilities. A detailed explanation of our valuation methodology is highlighted in Appendix 2. To confirm the validity of our sum-of-the-parts analysis, we have also looked at another DCF valuation approach (not shown): a free cash flow DCF model with three distinct growth periods to reflect the transition of start-up to growth for Petro Rabigh operations. Using both of these approaches, we derive a share price target of SAR 27/share, which indicates to us that Petro Rabigh's shares provide 29% potential upside.

The key assumptions employed within our NAV analysis are detailed below.

Key NAV assumptions

Assumptions		Notes
Number of ordinary shares, m	876	
Mid-year adjustment factor	1.05	
Discount rate	11%	Nomura discount rate assumption
Working capital, SARm	(2,063)	Split 50:50 refining & chemicals
Asset life	30	Company guidance
Exchange rate, \$/SAR	3.75	

Source: Nomura estimates

Net asset value

Our NAV calculation gives a valuation of SAR 27/share

		SAR mn	SAR/share
Refining	NPV over asset life	16,630	
	PV of working capital	(1,031)	
	Downstream total	15,599	17.8
Chemicals	NPV over asset life	32,543	
	PV of working capital	(1,031)	
	Downstream total	31,512	36.0
Gross asset value		47,111	53.8
Net debt		(23,366)	(26.7)
Net asset value		23,745	27.1
Total value		23,745	27.1
Shares outstanding		876	
NAV per share		27	

Source: Nomura estimates

High valuation multiples in the near term

In addition to our NAV valuation, we have compared Petro Rabigh with what we consider to be its global peer group, European, emerging market and US refining companies, on a variety of valuation multiples. Our conclusions:

- Petro Rabigh has been one of the disappointments for Saudi Arabian stock IPOs over the last few years. Since IPO in late January 2008, the share price has fallen from SAR 52/sh to around SAR 20/sh. Our preferred relative valuation metric is EV:EBIDA. The main reason for this is the refining and petrochemicals industry is capital intensive and, as such, depreciation charges can be quite significant, but again different accounting policies of the companies can vary significantly, both historically and currently. In addition, tax rates paid by the companies vary widely, for example, Petro Rabigh does not pay tax, while non-GCC tax rates will be at least 10% or higher.
- Petro Rabigh is trading at 12.2x EV:EBIDA 2009F, a 74% premium relative to the global refining group average at 7.0x. This reflects the earnings contribution and expected high growth for the fully operational plant as we forecast the stock is trading on EV:EBIDA at 6.3x in 2010, a 5% discount to the global refining group.
- EPS CAGR 2009-13F is 44% for Petro Rabigh and it has one of the fastest earnings momentums under our refining coverage. This reflects the significant growth profile and cost advantage in the medium term owing to the start-up of the petrochemicals units.
- Since Petro Rabigh provides limited financial information on its refining and chemicals operations, we have benchmarked the company's refining operations on an EV per refined barrel relative to net income per barrel with a series of European and emerging market refiners, as shown in the chart below. We have excluded our estimate of Petro Rabigh's chemicals business. On this matrix, Petro Rabigh ranks higher than most of the average for the emerging markets refiners in Europe at \$10.5k/bpd vs \$8.4k/bpd.

Petro Rabigh's net income/bl versus refining EV/bl relative to selected peers

Petro Rabigh's refining EV/bl is a premium to most other emerging market refiners in Europe



Source: Company data, Nomura estimates

Key positives

- **High ethane allocation:** Petro Rabigh has a high gearing to low-cost ethane feedstock (~80% with the rest naphtha), which means it has one of the lowest cash costs in Saudi Arabia. We estimate Petro Rabigh cash costs are \$90/ton, relative to SABIC's average ~\$150/ton.
- **Strategic shareholder support:** Petro Rabigh's strategic shareholders are key to the success of the project. Aramco provides secure, low-cost feedstock as well as local contacts within the Ministry of Petroleum, while Sumitomo Chemical provides technology and access to consumers in Asia. Both of these main shareholders may also be able to provide benefits such as optimising the marketing of product sales and the safe and reliable running of the plant.
- **Integrated project:** The integration of the plant means that most of the naphtha output is used in the petrochemical plant, allowing the company to optimise feedstock. The Independent Water, Steam Power Project (IWSPP) also means the plant is self-sufficient for utilities and recently was disconnected from SEC's network, thereby mitigating power shortages in the Kingdom, particularly in the summer months.⁹
- **Improved product yields and strategic location:** The upgrade of Aramco's existing Rabigh refinery means that the complex is one of the largest integrated plants in the world. The new upgrading units increase the higher-margin light product yields from 57% to 71% as well as improve the Nelson Complexity from 3.2 to 6.4. The location of the complex is also ideally situated on the Red Sea for export via the Suez Canal and near the rapidly expanding King Abdullah industrial city, which provides an outlet for products into the domestic market.

⁹ Marubeni will operate this facility, although Petro Rabigh has the right to operate in the event of unreliable operation.

Key negatives

- **Premium valuation in near term:** Petro Rabigh trades on 12.2x EV:EBIDA 2009F, which is a 74% premium relative to the global refiners peer group average at 7.0x, although the stock trades at only a 5% discount in 2010F. On an EV per barrel of refined capacity (where we exclude the value for the chemicals business), the refinery is worth \$10.5k/bpd, which is higher than \$8.4k/bpd for the emerging market and European group average. This reflects the integrated nature of Petro Rabigh's petrochemicals refining operations.
- **Weakening oil product and chemicals demand:** We expect global oil demand to remain weak with a ~1% decline in demand forecast by the IEA in 2009. Likewise for petrochemicals, we forecast 1-2% pa ethylene demand growth relative to 6% pa supply growth to 2010. As such, there are oil product and chemical demand risks for Petro Rabigh.
- **Specification limits European diesel exports:** Petro Rabigh's diesel yield is 28%, compared with 47% for European refiners for example, with the plant only able to produce diesel to 500ppm. With Europe having reduced the sulphur content for its diesel specifications to 10ppm effective 1 January 2009, diesel cracks still remain robust, averaging \$16.5/bl thus far in 2009. Since we believe that middle distillates will be the key driver for refining margins (*Asia/GEM Oil & Gas: Oil under water*, 14 November 2008), the lack of low-sulphur diesel gearing limits any upside from selling into the European diesel market.
- **Project expansion and start-up risks:** Petro Rabigh is only a single plant and the new (petrochemical) units will still need to be started up (end 1Q09) and run for extended periods of time. Unlike SABIC's portfolio, Petro Rabigh cannot rely on any support or output optimisation should there be any significant operational problems. In addition, Petro Rabigh is expected to go ahead with a Phase II expansion of the plant with expected start-up possibly early next decade. While Aramco can fund the project, it is not certain whether Sumitomo Chemical would be willing to invest further, especially considering a weakening demand environment. EPC is expected to be awarded in 4Q09, although we see possible delays to any further expansion and do not include this in our forecast.
- **Disclosure and historical information:** Since Petro Rabigh only listed on the Tadawul in 2007, and the full effect from operational start-up has yet to be reflected into the company's accounts. As such, there is limited historical financial and operational information. The company also only disclosures quarterly results mostly in Arabic.

Petro Rabigh – Awaiting project delivery

Petro Rabigh was established to improve the profitability of the existing Rabigh refinery located north of Jeddah in Saudi Arabia. The investment of catalytic cracking units and petrochemicals processing capacity provide Petro Rabigh with a more upgraded refinery mainly for the export market. The company is primarily a single-asset refinery, and the location of the site allows for further expansion next decade. Saudi Aramco and Sumitomo Chemical each have a 37.5% stake in the company. Our investment case for Petro Rabigh is detailed below.

Petro Rabigh is located north of Jeddah and is designed primarily as an export refinery and petrochemical complex as well as supporting the industrialisation around Jeddah

Petro Rabigh is principally a one-refinery and petrochemical company – namely the expanded Rabigh refinery. It represents 20% of Saudi Arabia's refining capacity. The company was formed in order to support the industrialisation of the region around Jeddah as well as improve the profitability of the existing Rabigh plant. The area has been allocated SAR 138bn by the government with King Abdullah's industrial city expected to be fully completed by 2020.¹⁰ This would also allow Petro Rabigh to provide products into the local market and not just be linked to the export markets. Petro Rabigh expects to sell approximately 18% of its oil product and chemicals output into the local market, which may grow in the medium term. Petro Rabigh's investment mainly relates to a High Olefin Fluid Catalytic Cracking unit (HOFCC) to promote conversion to lighter oil products and an ethane cracker for output of polyethylene together with an IWPP, all of which amounts to ~\$10bn including the acquisition of the existing refinery. This improves the complexity of the refinery substantially. Our estimated Nelson Complexity calculation is detailed below.

Petro Rabigh

Capacity (kbd)	Capacity (kbd)	Nelson Complexity factor	Net complexity
Crude distillation	400	1	400
Vacuum distillation	166	2	332
Coking		6	
Thermal operations (Visbreaking)		2.75	
Catalytic cracking	92	6	552
Catalytic reforming	47	5	235
Catalytic hydrocracking:		6	0
Catalytic hydrotreating	120	2.5	300
Alkylation	23	10	226
Polymerisation	31	10	305
Aromatics/isomerisation:	14	15	203
Lubes		60	
Oxygenates		10	
Hydrogen (Mcf)	12	1.2	15
Asphalt		1.5	0
Coke		1	0
		Nelson Capacity	2,567
		Nelson Complexity	6.4

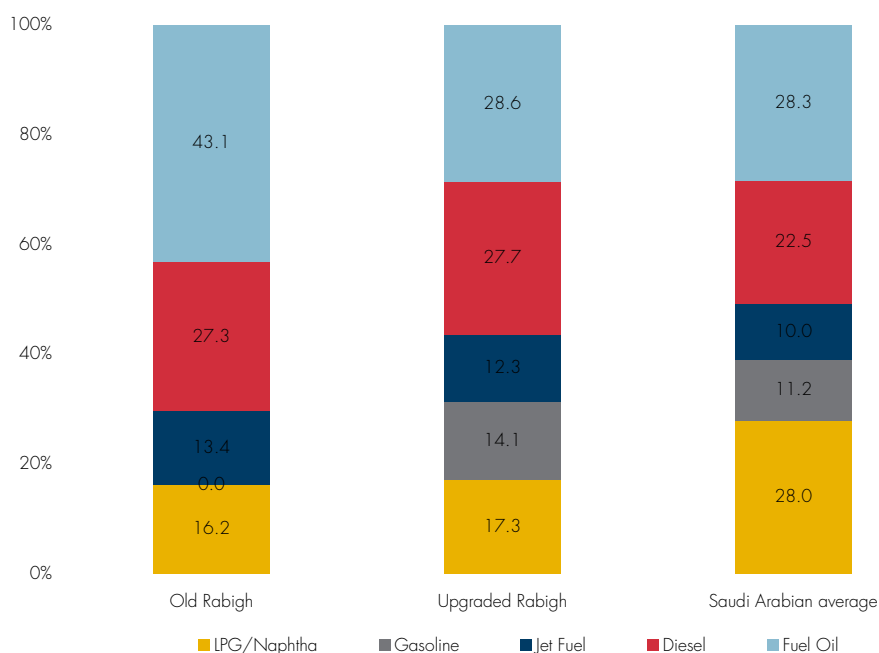
Source: Oil & Gas Journal, Company data, Nomura estimates

¹⁰ Construction of other projects in the Jeddah region has also begun. Prince Mansour, Deputy Minister of Municipal and Rural Affairs, launched a number of road projects and a SAR 28.5m forestation programme, water treatment and garbage/recycling facilities (Arab News, 6 January 2008).

The chart below shows the movement in yields that the company expects following the start-up of its new units. The proportion of gasoline is expected to rise to 14%, while the lower-margin fuel oil yield is set to fall to 29%. Petro Rabigh has indicated that completion of the testing of the petrochemical units and operational start-up will be in March and ramp-up to profitability by year end. Our forecast assumes the plant makes SAR 1.2bn this year with approximately SAR 0.9m from the refining business. This implies a profit per barrel of \$1.7/bl (SAR 6.5/bl).

Petro Rabigh product yields

Petro Rabigh's refinery essentially moves from a simple topping refinery to an integrated upgrading complex with a significant increase in gasoline yields and lower fuel oil yields



Source: Company data, Eni World Oil & Gas Review

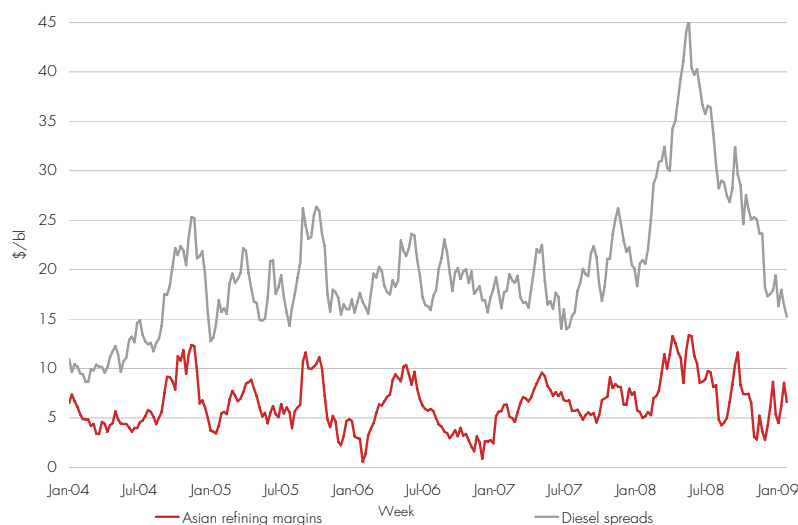
Refining margins weakness, limited diesel gearing

Petro Rabigh's lack of low-sulphur diesel output limits the company's ability to sell on spec product into Europe

Global refining margins have been volatile and near or below the historical average in Europe and Asia. For example, Singapore margins are currently \$6.5/bl essentially at the five-year historical average thus far in 2009. However, diesel spreads in Europe have remained relatively robust averaging \$16.5/bl in 2009, as shown in the next chart. This may reflect the 1.6m bls/d incremental refinery capacity relative to oil product demand coming onstream in 2008 and 2009. We expect this new capacity together with a weakening demand outlook for oil products to put downward pressure on refining margins in the medium term. Petro Rabigh's refinery is geared toward gasoline output rather than low-sulphur ppm diesel, which some markets such as Europe require owing to the change in diesel specifications that came into force in 2009, as shown in the following table. The lack of low-sulphur diesel may limit Petro Rabigh's ability to capture higher diesel spreads in the medium term.

Refining margins and diesel spread*

Asian refining margins and European diesel spreads have remained above the five-year historical average level so far in 2009, although new refining capacity and weakening demand may put downward pressure on margins in the medium term



Note: *Diesel spread = European gasoil less Brent prices

Source: Nomura estimates

Selected country oil product specifications

Country	Product	Current specification*	Future specification
EU	Gasoline/diesel	Sulphur content <10ppm in 2009 (Euro V)	No change
USA	Gasoline	Sulphur content from 90ppm to 30ppm on-road from 1 June 2006 In addition, batch limit change from 300ppm to 80ppm from 1 June 2006	Complete implementation of specification at 30ppm required in 2010
	Diesel	Sulphur content from 500ppm to 15ppm from 1 June 2006 for refiners and transition period to 15 October 2006 for retailers	Complete implementation of specification at 15ppm required in 2010
FSU	Gasoline	Sulphur content 150 ppm (2005)	80ppm (2010)
	Diesel	Sulphur content 280 ppm (2005)	140ppm (2010)
China	Gasoline	150 ppm (Euro III) nationwide (except Beijing & major cities)	10ppm from 2008 (Euro IV) in Beijing & major cities, nationwide by 2010
	Diesel	350 ppm (Euro III) nationwide (except Beijing & major cities)	50ppm from 2008 (Euro IV) in Beijing & major cities, nationwide by 2010
India	Gasoline	Sulphur content 500ppm nationwide and 150ppm in large cities	10ppm in 2010
	Diesel	Sulphur content 500ppm nationwide and 350ppm in large cities	50ppm in large cities, 350ppm elsewhere in 2010
Singapore	Gasoline/diesel	Sulphur content 50ppm	No change
Africa	Gasoline/diesel	Sulphur content 500 ppm (2005)	260ppm in 2010
	Diesel	Sulphur content 1,500 ppm (2005)	170ppm in 2010

Note: Data based on road vehicles, alternative transportation modes may have different limits.

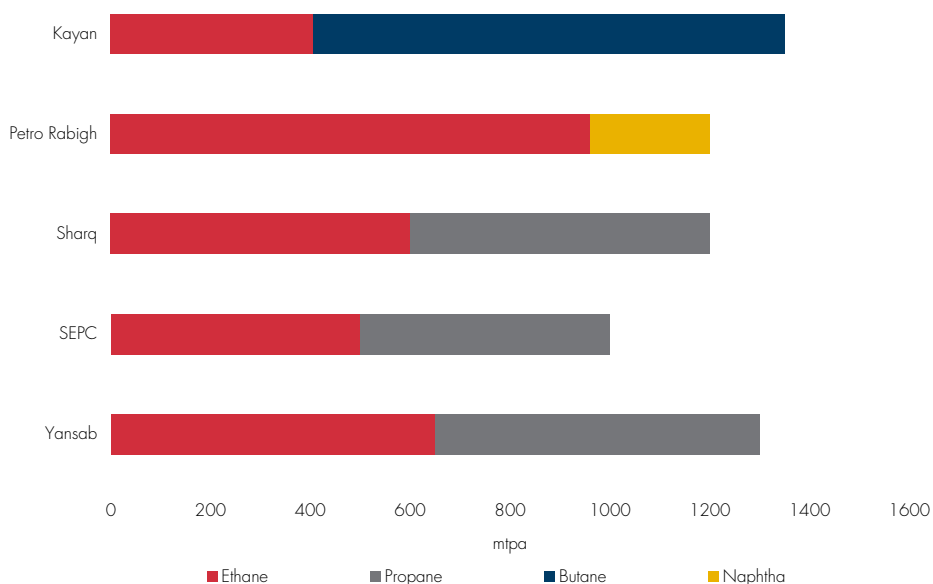
Source: Company data, Platt's, Oil & Gas Journal, Nomura estimates

High ethane allocation

Petro Rabigh's ethane content is 80% of total feedstock volume, as shown in the chart below, compared with other petrochemicals projects in Saudi Arabia. Although there are some plants that have a 100% ethane allocation, Petro Rabigh is one of only a few new projects with such high ethane content coming onstream in the medium term. For those chemical producers that are able to gain access to cheaper feedstock, such as ethane relative to naphtha, there is an economic advantage, especially as the marginal price for ethylene derivatives is set by Asian naphtha crackers. While naphtha prices have fallen sharply recently (naphtha prices have averaged below \$400/ton in 1Q09 relative to \$838/ton for 2008) leading to an improved cost position for both European and Asian crackers. We believe that oil prices and hence naphtha prices will recover to a long-term price of \$527/ton, which should preserve the long-run cost advantage for Petro Rabigh (see SABIC section for more details).

Saudi Arabian feedstock allocations for selected new projects

Petro Rabigh's high ethane content provides a cost advantage owing to the low price for gas in Saudi Arabia and our expectation of higher naphtha prices in the long term



Source: CMAI, Nomura estimates

Earnings and cost assumptions

We have split Petro Rabigh's business into refining and chemicals. For refining, we have assumed crude feedstock is allocated 50:50 Arab Light and Medium from Aramco and product yields as per company guidance with oil product exports assumed mainly to Asian markets. Our oil prices and refining margins are based on our previously published research (*Asia/GEM Oil & Gas: Oil under water*, 14 November 2008), which give an implied gross refining margin, and we have assumed 5% of this margin is fixed and variable costs to give a net refining margin, as shown in the table below. We assume the plant will run at 90% utilisation and do not forecast any significant maintenance in the medium term. For chemicals, we assume the following chemicals sales prices and costs as shown in the table below. We assume chemicals units gradually ramp up to 95% utilisation by 2012, in line with company guidance. It is expected that the gas price in Saudi Arabia will officially rise from \$0.75/mbtu (valid until 2011), although the exact level has yet to be announced. We forecast the new gas price level to be in the \$1.25-1.50/mbtu range. We have taken a conservative view and assumed Petro Rabigh's ethane price does increase from 2015 as per the IPO document. We assume total capex at SAR 400m pa (1% of the original ~\$10bn investment) and do not include any plant expansion investment. We forecast DD&A based on a straight depreciation schedule of the original asset base and investment over 30 years from 2009.

Prices and margin assumptions

Prices, \$/ton	2009E	2010E	2011E	2012E	2013E
LDPE	795	812	812	812	812
PP	792	827	827	827	827
HDPE	774	793	793	793	793
MEG	555	562	562	562	562
Refining margins, \$/bl					
Naphtha	(7.0)	(8.0)	(7.0)	(6.0)	(5.0)
Gasoline	10.0	10.0	8.0	8.0	8.0
Jet fuel	15.0	18.0	19.0	20.0	21.0
Diesel fuel	12.5	15.0	16.0	17.0	18.0
Fuel oil	(7.0)	(8.0)	(7.0)	(7.0)	(7.0)

Source: Nomura estimates

Accounting under Saudi GAAP

Petro Rabigh accounts are reported under Saudi GAAP, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. Petro Rabigh does provide segmental financial information for refining and chemicals. We have split out these businesses to understand better the key drivers within the company and benchmark with other companies. Below the line, Petro Rabigh does have net financing items, which relate to short-term deposits.

All tables on page 55 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (Saudi GAAP)

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Oil price, Arab Light, \$/bl	69.2	98.0	56.0	61.0	71.0	71.0	71.0
Oil price, Arab Medium, \$/bl	66.6	94.2	54.0	59.0	69.0	69.0	69.0
Middle East refining margin, \$/bl	n/a	n/a	3.2	3.8	4.3	4.8	5.3
Exchange rate, SR:\$	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Adjusted Operating profit							
Refining	0	0	951	1,222	1,477	1,730	1,983
Chemicals	0	0	173	2,234	2,168	2,907	2,907
Other	(423)	(1,292)	0	0	0	0	0
Total operating profit	(423)	(1,292)	1,123	3,456	3,645	4,637	4,891
Net finance cost	20	30	47	65	60	49	38
Foreign Exchange Gain/Loss	(40)	5	0	0	0	0	0
Pretax profit	(443)	(1,256)	1,170	3,522	3,705	4,686	4,928
Tax charge	0	0	0	0	0	0	0
Adjusted net income	(443)	(1,256)	1,170	3,522	3,705	4,686	4,928
% change	n/a	n/a	n/a	201	5	26	5
Adjusted EPS, SAR	(0.5)	(1.4)	1.3	4.0	4.2	5.3	5.6
EPS growth, % pa	n/a	n/a	n/a	201	5.2	26	5

We expect Petro Rabigh to gradually ramp-up its chemicals units in 2H09 with the company making a profit in 2009. Petro Rabigh does not have a tax charge

Summary balance sheet

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	5,953	9,264	9,264	9,264	9,264	9,264	9,264
Minorities	0	0	0	0	0	0	0
Short term debt	0	0	0	0	0	0	0
Long term debt	19,444	24,900	34,276	31,475	26,021	20,385	13,766
Cash	(186)	(1,534)	(1,534)	(1,534)	(1,534)	(1,534)	(1,534)
Net debt	19,258	23,366	32,741	29,941	24,487	18,850	12,232
Capital employed	25,210	32,630	42,005	39,205	33,751	28,114	21,496
Balance sheet ratios							
Net debt to equity, %	324%	252%	353%	323%	264%	203%	132%
Net debt capital, %	76%	72%	78%	76%	73%	67%	57%
RoACE, %	(3%)	(4%)	3%	9%	10%	15%	20%
RoAE, %	(11%)	(17%)	13%	38%	40%	51%	53%

Net debt represents 78% of capital employed in 2009, although this falls to 57% in 2013

Gearing remains at a relatively high level, although falls significantly in 2013

Summary cash flow

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Adjusted net income	(443)	(1,256)	1,170	3,522	3,705	4,686	4,928
Minorities	0	0	0	0	0	0	0
Adjusted DD&A	0	0	933	1,234	1,234	1,234	1,234
Post tax interest charge on debt	266	1,093	1,326	1,858	1,699	1,390	1,070
Cash EBIDA	(176)	(163)	3,429	6,614	6,638	7,310	7,232
EBITDA per share	(0.2)	(0.2)	3.9	7.6	7.6	8.3	8.3
less: post tax interest charge	(266)	(1,093)	(1,326)	(1,858)	(1,699)	(1,390)	(1,070)
Adjusted movement in provisions	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Working capital movement	1081	1081	1081	1081	1081	1081	1081
Cash flow from operations	625	(188)	3,171	5,824	6,007	6,988	7,230
Capex	(1,5972)	(9,187)	(370)	(370)	(370)	(370)	(370)
Dividends paid	0	0	0	0	0	0	0
Net cash flow from operations	(15,346)	(9,376)	2,801	5,454	5,637	6,618	6,860
per share	(18)	(11)	3	6	6	8	8
Non recurring items							
Acquisitions	0	0	0	0	0	0	0
Divestments	(2,120)	0	0	0	0	0	0
Share issuance (repurchase)	3,945	0	0	0	0	0	0
Surplus (deficit) from our line items	(1,3521)	(9,376)	2,801	5,454	5,637	6,618	6,860
Other movements	1,1627	0	0	0	0	0	0
Net cash surplus (deficit)	(1,894)	(9,376)	2,801	5,454	5,637	6,618	6,860

We estimate DD&A based on a straight-line depreciation schedule using a 30 year asset life

Depreciation makes up 37% of posttax cashflow similar to most other refining companies.

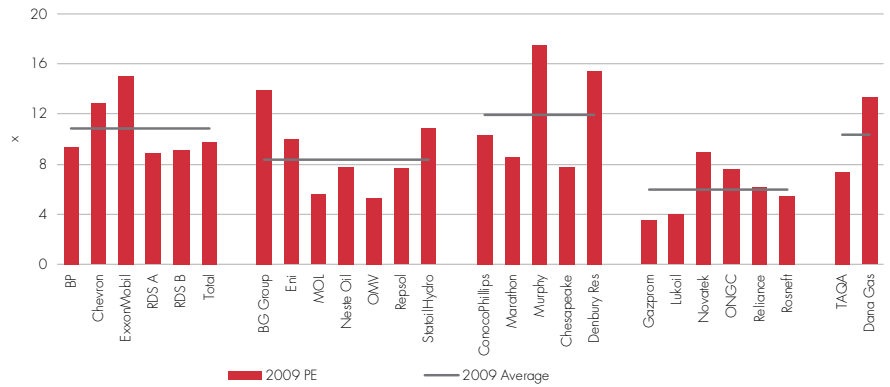
Petro Rabigh's capex falls in 2009 after the significant investment made to the refinery and upgrading units. We assume no major maintenance or upgrades are planned in the medium-term

Petro Rabigh intends to pay dividends, but this will depend on specific factors. The company will not pay dividends for at least two years from the start-up of integrated operations. We assume no dividend payout in our forecast owing to the current oil market environment

Selected relative valuation analysis – Upstream

P/E valuation at 7.4x 2009F earnings for TAQA is below the global oils peer group and the Majors average at 10.8x. Dana Gas' valuation premium reflects its high production growth in the near term, which narrows to 12.5x in 2010F. P/E multiples may be distorted for some of our coverage partly owing to the high level of gearing

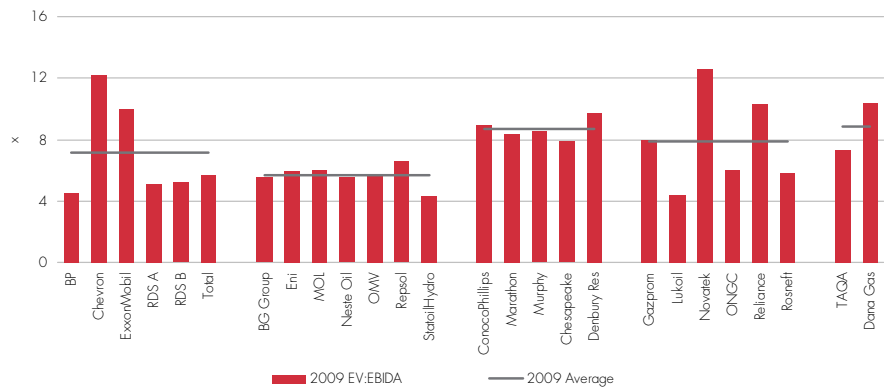
2009F P/E ratio



Source: Bloomberg, Nomura estimates

EV/EBIDA for TAQA is in line with the global peer group at 7.2x and a 30% discount relative to Dana Gas. However, Dana Gas trades at similar multiples to other high-growth and gas-biased names, such as Novatek.

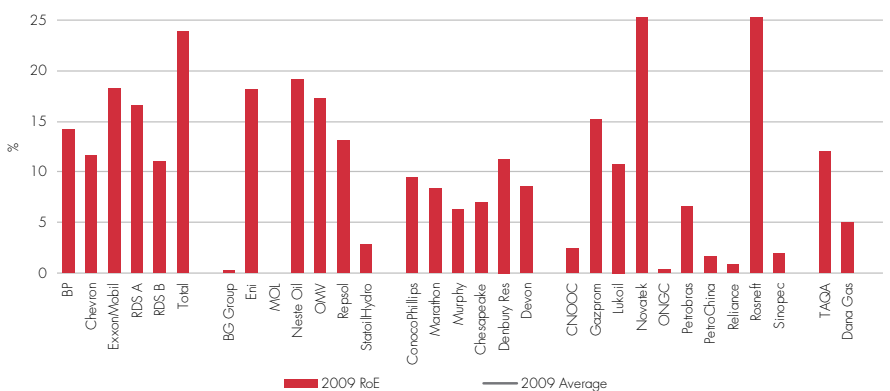
2009F EV/EBIDA



Source: Bloomberg, Nomura estimates

TAQA's RoE is in line with the global group owing to its exposure to North Sea and North American oil and gas production. Dana Gas' lower returns reflect its exposure to lower-priced gas and higher fiscal take.

2009F RoE



Source: Bloomberg, Nomura estimates

Bloomberg consensus estimates used for stocks not covered by Nomura for all relative valuations charts in this report. Prices at closing on 18 and 19 February.

Selected relative valuation analysis – Downstream

Petro Rabigh's P/E valuation at 15.7x 2009F earnings is a significant premium to the global refining peer group average on 9.5x, particularly Saras, Neste Oil and Valero on 8.0x, which have particularly high complexity.

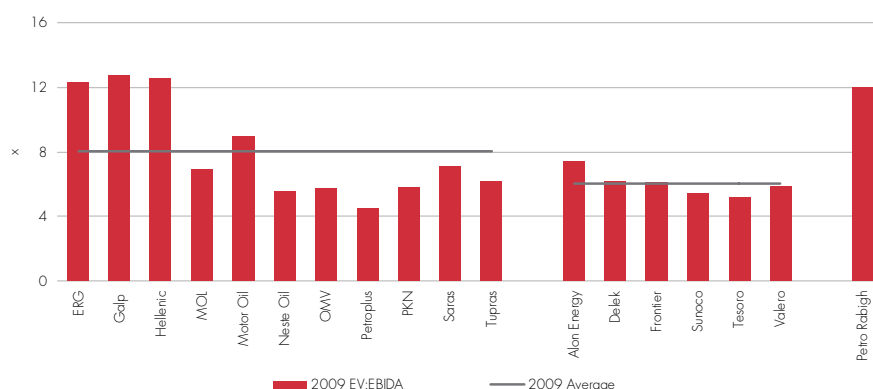
2009F P/E ratio



Source: Bloomberg, Nomura estimates.

EV/EBIDA shows a significant premium to the global refining peer group for Petro Rabigh at 12.2x. However, Petro Rabigh trades essentially in line with the global group at 6.3x in 2010F, which reflects the contribution of its petrochemicals operations ramping up.

2009F EV/EBIDA



Source: Bloomberg, Nomura estimates.

Petro Rabigh's RoE is near the average of our selected universe at 13%. We expect this to improve once the complex ramps up to full capacity, which should highlight the company's low-cost feedstock advantage and integrated plant.

2009F RoE



Source: Bloomberg, Nomura estimates.

Petrochemicals

SABIC – Low-cost producer despite slowdown

Stock rating	NEUTRAL
Price, 18 Feb	SAR 46
Price target	SAR 60
Upside potential, %	31
Market cap, SARbn	138
Market cap, \$bn	37

Valuation	2009F	2010F
EPS	3.9	4.0
P/E	11.8	11.4
Div. Yield, %	4.4	4.4
EV/EBITDA, x	8.7	8.8

Performance, %	QTD	YTD
Absolute, SAR	(11)	(11)
vs market	(10)	(10)

Asset mix by business, %	
Petrochem & fertiliser	69
Steel	7
Other	24
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	80
Asia	20
Total	100

Earnings mix by business, %	
Petrochem & Fertilizer	76
Steel	10
Other	14
Total	100

Catalyst dates	
Gas price change	1H09
Yansab ramp-up	1Q09

SABIC is one of the world's largest petrochemicals producers with operations organised within six business units: basic chemicals, intermediates, polymers, specialty products, fertilisers and metals. SABIC was established by a Royal Decree in 1976 and provides an important role in the diversification and industrialisation of Saudi Arabia's economy. The company's production activities are concentrated mainly in Saudi Arabia.

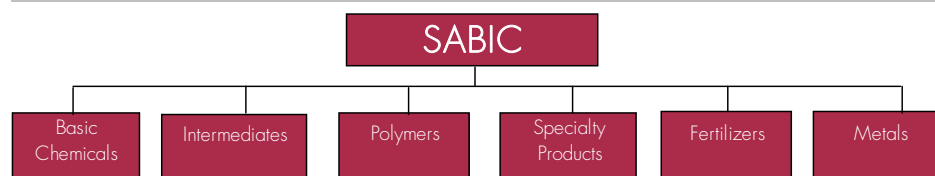
Brief history

1976	Established by Royal Decree No. M 66
1979	First SABIC JV with Japanese consortium called Saudi Methanol Co.
1984	Public offering of 30% SABIC shares
2002	Acquires DSM petrochem business for EUR 2.25bn renamed SABIC Europe
2002	SABIC Europe acquires 50% in StaMax
2003	SABIC Europe enters JV with Sud Chemie AG
2005	Yanbu Nat Petrochem established with 55% SABIC ownership and 45% public/private
2006	Acquires Huntsman UK for \$685m
2006	Saudi Kayan Petrochem est. with SABIC and Al-Kayan Petrochem
2007	Saudi Kayan Petrochem 45% public offering
2007	Acquires GE Plastics for \$11.6bn
2007	HoA signed with Ma'aden for phosphate plant
2008	HoA signed with Sinopec to form a 50:50 JV for a 1 mtpa ethylene complex at Tianjin

Source: Company data, Nomura research

SABIC's main activities are to produce, process and sell petrochemicals and metals in both the GCC, but mainly abroad. In the long term, SABIC's strategy ("20:20" strategy) is to diversify its product range into high-value specialty products and expand its marketing and distribution network geographically or acquiring production facilities in advantaged feedstock locations. The company also maintains a strict focus on its safety record. The diagram below shows how SABIC's business units are structured.

Corporate structure schematic



Note: Only the main business units are shown for simplicity.

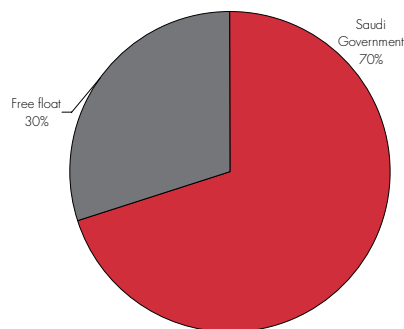
Source: Company data

While SABIC is organised within six businesses, the company only provides a segmental breakdown by metals, corporate and petrochemicals & fertiliser, with the latter segment contributing 69% in assets and 76% operating profit.

Shareholder structure

The Saudi Arabian government directly owns 70% of SABIC's shares with the remaining 30% free float restricted to GCC investors only.¹¹

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Mohamed H. Al-Mady, Vice Chairman and CEO. Mr Al-Mady has been in his current role since July 1998. Prior to his appointment, he was SABIC's Director General for Projects. He joined SABIC at its creation in 1976 as a chemical engineer.

Yousef Al-Zamel, VP Chemicals. Mr Al-Zamel was appointed to his current position in September 2002. He started with SABIC in 1976 as a chemical engineer and has held a series of management positions within SABIC's fertilisers business.

Khaled Al-Mana, VP Polymers. Mr Al-Mana became VP Intermediate Chemicals in 2002. He joined SABIC in 1990 and became the Regional Sales Manager for SABIC Singapore in 1993. He holds a Masters in Engineering.

Fahad Al-Sheaibi, VP, Fertilizers. Mr Al-Sheaibi has been in his current position since October 2006 having previously been VP PVC/Polyester since 2002. He has also held several senior management positions within sales and marketing as well as General Manager for SABIC Europe. He holds a degree in Business Administration.

Ibrahim Al-Shuweir, VP, Metals. Mr Al-Shuweir has held a series of management positions in Ibn-Hayyan Plastics, Eastern and Arabian Petrochemical before being appointed to his current position. He is a chemical engineer.

¹¹ The Saudi government currently owns 70% of SABIC with the last public offering in 1984. While SABIC's bylaws allow the government to sell down its stake and retain 25%, we believe this is unlikely in the medium term owing to the strategic nature of petrochemicals and the importance of the sector for industrialisation within the Kingdom.

Mansour Al-Kharboush, VP Performance Chemicals. Mr Al-Kharboush has previously headed SABIC's Shared Services business. He started work at SABIC in 1982 and has held senior management position in polyolefins.

Charlie Crew, VP Innovative Plastics. Mr Crew was appointed to his current position in 2008 and joined SABIC as a result of its merger with GE Plastics. Prior to his current position, Mr Crew was VP and general manger of SABIC Innovative Plastics Global Ventures. He also held several management roles within GE Plastics.

Mr. Al-Khuraimi, VP Manufacturing. Prior to his current position, Mr Al-Khuraimi has held a number of positions at YANPET and other roles within SABIC's businesses. He is a chemical engineer.

Mutlaq Al-Morished, VP Corporate Finance. Before taking up his current post, Mr Al-Morished was successively VP of Shared Services, President of the Saudi Petrochemical Company and also of HADEED. He has a Masters in Nuclear Engineering.

Homood Al-Tuwaijri, VP Corporate Control. Prior to his current position, Mr Al-Tuwaijri was VP of Petrochemicals Coordination and VP of Corporate Finance. He is an industrial engineer.

Dr Abdulrahman Al-Ubaid, VP Research & Technology. Dr Al-Ubaid joined SABIC in 1989 and has since held positions in SABIC's strategic business unit and Intermediates as well as being on the BoD for some of SABIC's businesses. He is a chemical engineer.

Abdullah Bazid, VP Shared Services. Mr Bazid joined SABIC in 1979 and has held several positions advising SABIC on international projects. He is a civil engineer.

Yousef Abdullah Al-Benyan, VP Corporate HR. Mr Al-Benyan joined SABIC in 1987 and has held several positions in Intermediates and overseas assignments.

Sum-of-the-parts NAV – Upside potential despite margin weakness

We initiate with a Neutral rating and a price target of SAR 60/sh

Our valuation approach for SABIC is our sum-of-the-parts net asset value, whereby we calculate a DCF-based value for each business segment, namely fertiliser, petrochemicals and metals (see Appendix 2). However, we have also tested our valuation using another DCF valuation approach (not shown): a free cash flow DCF model with three distinct growth periods as an alternative method to highlight the phases of growth from ramp-up of SABIC's key projects. Using these approaches, we derive a share price target of SAR 60/sh, which indicates to us that SABIC's shares provide 31% potential upside.

The key assumptions employed within our NAV analysis are detailed below.

Key NAV assumptions

Assumptions	Notes
Long-run ethylene margin	\$400/ton Assumes trough conditions
Steel prices	\$634/ton Long run assumption
Working capital	29,016 Assume all petchems & fertiliser
Number of ordinary shares, m	3000
Multiple for other & corporate	3
Discount rate	9.7% Discount rate assumption
Exchange rate, SAR/\$	3.75

Source: Nomura estimates

Net asset value

Our NAV calculation gives a valuation of SAR 60/sh

			SAR m	SAR/share
Petrochemicals & fertilizer	NPV over asset life		188,295	63
	PV of working capital		29,016	10
	Total petrochem & fertiliser		216,311	72
Steel	NPV over asset life		32,595	
	Total Steel		32,595	11
Other and corporate	2008E earnings	2,974	8,921	3
	P/E applied	3		
Gross asset value			258,827	86
Net debt			(42,682)	(14)
Minorities			(43,497)	(14)
Investments			6,266	2
Net asset value			178,915	60
Total value			178,915	60
Shares outstanding			3,000	
NAV per share			60	

Source: Nomura estimates

Sensitivity to ethylene margins

Since ethylene margins are an important driver for our valuation for SABIC, we provide a sensitivity estimate to our NAV-based price target in the following table. This shows that should ethylene margins recover back to peak-cycle levels, we see significant upside potential to our SAR 60/sh price target.

Sensitivity analysis with ethylene margins to SABIC's price target, SAR/sh

SABIC's NAV offers higher values if ethylene margins return to peak levels. Although, we expect downward pressure on ethylene margins until 2012, we see below SAR 40/sh as a good entry point for long term holdings

Discount rate	Medium-term ethylene margin, \$/t								
	300	350	400	450	500	550	600	650	700
8.0%	43	55	68	80	92	104	117	129	141
8.5%	41	53	65	77	89	101	113	125	137
9.0%	39	51	63	74	86	97	109	121	132
9.5%	38	49	61	72	83	95	106	117	129
10.0%	37	48	59	70	81	92	103	114	125
10.5%	35	46	57	68	79	89	100	111	122
11.0%	34	45	55	66	77	87	98	108	119
11.5%	33	44	54	64	75	85	96	106	117
12.0%	32	43	53	63	73	83	94	104	114
12.5%	31	42	52	62	72	82	92	102	112
13.0%	31	41	51	60	70	80	90	100	110
13.5%	30	40	50	59	69	79	89	98	108

Source: Nomura estimates

Valuation multiples reflect commoditised business

In addition to our NAV valuation, we have compared SABIC with what we consider to be its global peer group, local and international petrochemicals companies, particularly those more geared to ethylene and polyethylene, on a variety of valuation multiples. Our conclusions:

- SABIC trades at 8.7x the EV:EBITDA multiple, a 40% premium to Industries Qatar, its closest Middle East competitor, which partly reflects SABIC's lower-cost base relative to IQ. We see this premium being maintained in the future despite IQ's capacity expansion. On a global basis, SABIC trades at a 40% premium to the average European and in line with the average for US companies. However, SABIC's P/E is 11.8x, a 20% premium to the European group, although a 14% discount to the average for US chemicals at 13.7x.
- SABIC trades on 1.3x price-to-book ratio, which is essentially in line with the average for European chemicals, although lower than the US average at 2.4x.
- The dividend yield is 4.4% for SABIC and the company's payout is 40-50% of earnings. We expect the company to maintain this policy despite the chemicals slowdown, owing to its large government holding. We forecast SAR 2.0/sh in 2009.
- SABIC's low gearing at 26% net debt to equity means it has the financial flexibility to pursue acquisitions.
- EPS CAGR 2009-13F is 7.5%, considerably lower than the 32% between 2000-08, which reflects the deterioration in global chemicals demand and oversupply.

Key positives

- **Low-cost producer:** The gas price in Saudi Arabia is fixed at \$0.75/mbtu until 2011, although we expect it to rise to ~\$1.25-1.50/mbtu in 2012. This price is considerably lower than international gas prices, for example the US gas price has averaged \$5/mbtu so far in 2009. Since gas costs may represent up to 90% of petrochemical or fertiliser production costs for non-GCC producers, this gives the company a significant cost advantage globally. The same is true within the GCC, for example, in Qatar gas prices are higher (\$1-2/mbtu) and may include escalation factors.
- **Recovery in naphtha improves cost competitiveness:** Naphtha prices have collapsed from their historical highs in 2008 closing the cost gap with Asian crackers. We expect oil prices to increase to a level that reflects the average marginal cost of supply and hence see naphtha prices recover in the medium term. This is likely to re-establish SABIC's cost advantage globally.
- **Track record of delivery:** Many of the management team started within an engineering function in SABIC, which provides a detailed background to the company's assets. This has established a track record for project delivery, which historically was built up as a consequence of working with international companies such as ExxonMobil and Mitsubishi.
- **Acquisitions may lead to further diversification:** We believe SABIC will take the opportunity in the downturn of the chemicals cycle to acquire assets in high-demand growth regions, such as Central Europe and Asia, and to diversify into businesses to obtain higher-value specialty products such as polyurethanes. We also expect SABIC to enter into further joint ventures in China similar to Tianjin.
- **Strategic location and feedstock availability:** With a gas reserve life of 94 years and developments such as the Karan gas project, we do not take the view that there is a significant shortage of gas in the Kingdom. However, we accept that perhaps not all Saudi's gas deposits are located conveniently in one region or near industrial areas. In addition, the location of SABIC's domestic plants provides the company with flexibility to access exports markets in Europe and Asia, and divert product to higher-margin regions.

Key negatives

- **Near-term risk to earnings:** SABIC trades on 11.8x P/E 2009E, a 40% premium to IQ, its closet Middle East peer reflecting its superior cost advantage. We expect SABIC to exhibit higher P/Es in trough cycle conditions similar to other commoditised companies historically such as Dow Chemical. However, with consensus at 6x P/E 2009-10F, we believe there are downside risks to consensus earnings in the near term.
- **Lower ethylene margins:** We estimate new ethylene capacity of 24mtons coming onstream to 2010 (6% pa). This combined with slower growth in demand (1-2% pa) may put further downward pressure on polyethylene prices in the medium term. Since SABIC exports ~65% of its products to Asia, any slowdown in export markets in this region affects output. SABIC has already started reducing output at some of its plants at the high end of its internal cost curve, but a sustained slowdown in petrochemicals demand may continue this trend.¹² The company also has a higher exposure to the European chemical markets by virtue of its DSM acquisition (SABIC Europe contributes ~25% of volumes relative to IQ, which does not have operating assets in Europe).
- **Increased domestic competition:** Historically, gas allocation for new projects within Saudi Arabia was mainly on a first-come, first-served basis and with typically those organisations closer to the government gaining access to higher ethane allocation and hence improved project profitability. However, the increase in competition for projects and the introduction of more domestic companies, proposed petrochemical plants must show that products from new developments will add value to the Kingdom, ie, high-margin specialty products. This has limited SABIC's competitiveness at receiving the best allocation for its new developments.
- **GE Plastics write-downs:** SABIC purchased GE Plastics (now SABIC Innovative Plastics) in 2007 for \$11.6bn (with subsequent booking of goodwill from the transaction in its accounts) at the peak of the chemicals cycle. Since chemicals asset prices have fallen sharply since 2007, we see a risk of impairment charges for writing off the additional goodwill from this acquisition in the medium term.
- **Minority shareholder risks:** SABIC's free float is only 30% and with ~SAR 50bn cash on the balance sheet, no significant refinancing requirements this year and the ability to issue debt at competitive rates owing to its government holding, SABIC has limited focus on its minority shareholders and is likely to be more concerned with meeting the government's objectives for industrialisation and social needs rather than providing excess returns for equity shareholders.

¹² For example, SABIC Innovative Plastics has announced a 20% cut in engineering thermoplastics production in the US.

Low-cost producer despite slowdown

SABIC is one of the largest petrochemicals producers in the world producing ~50mtpa of petrochemical products. The company's operations are mainly located in Saudi Arabia, which provides low-cost gas feedstock (\$0.75/mbtu) via the Kingdom's national oil company, Saudi Aramco. A significant proportion of chemical product is exported to Asia (~65%), while the firm has existing operations in Europe (25% of volumes). In this section, we highlight some of the key themes that support our investment case for SABIC.

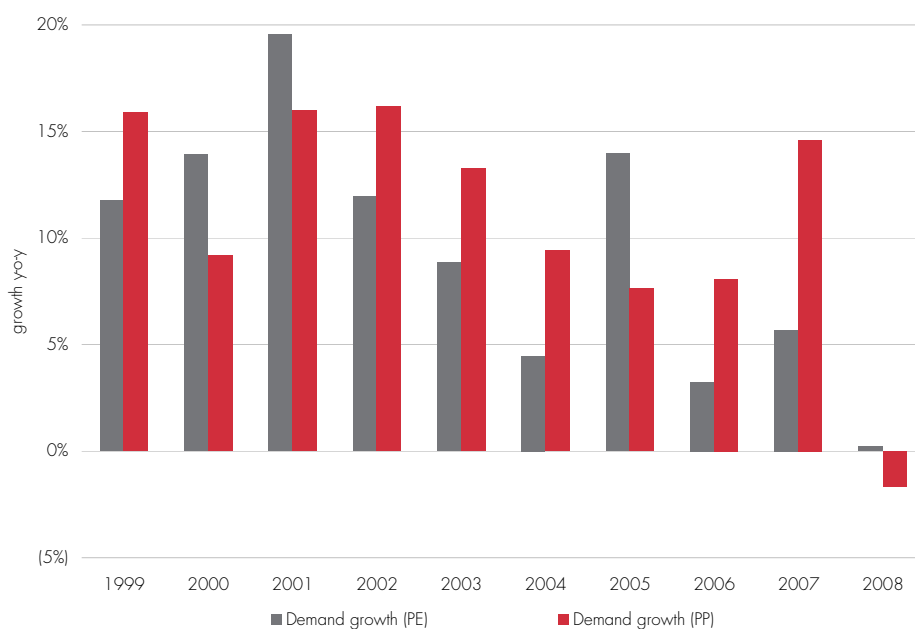
Lower demand and oversupply

We expect an oversupply in the ethylene market leading to lower operating rates and downward pressure on margins

We remain cautious on the petrochemicals sector and do not believe there will be a recovery in demand for chemicals in the near term. We expect demand growth for petrochemicals to moderate in the medium term. We forecast 1% ethylene demand growth in 2009, lower than the five-year historical average of 3-4% pa, with a recovery to ~3% pa from 2011. This is partly owing to the rapid fall in chemicals demand growth in Asia. For example, in China, one of SABIC's key markets,¹³ total combined demand growth for both polyethylenes and polypropylenes fell by 1% in 2008 having averaged 11% pa growth from 1999-2007, as shown in the chart below.

Chinese polyethylene and polypropylene demand growth

Chinese demand growth for polyethylenes and polypropylenes collapsed in 2008, a key market for SABIC



Source: CPCIA

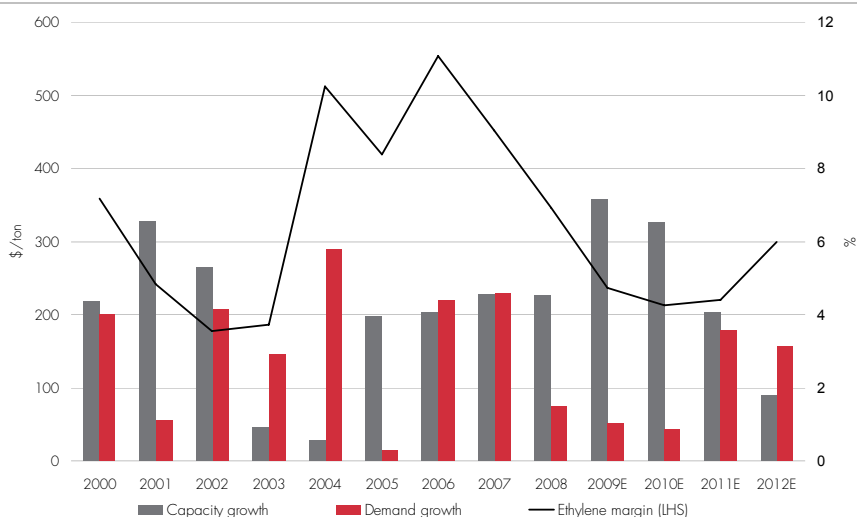
¹³ Basic chemicals and polymer products account for ~60% of SABIC's total volumes with a significant proportion sold in Asia.

SABIC's high spending has been at the top of the chemicals cycle, and its ethylene expansion plans have contributed to the oversupply in the market

On the supply side, we believe the oversupply situation is likely to worsen as new capacity is starting up from 2008 (24mtons or ~6% pa to 2010) relative to our expectation of demand growth of 1-2% pa over the same period, as shown in the chart below. The irony for the sector is that ~50% of the new ethylene supply coming onstream is from the Middle East, having been constructed at some of the highest-ever contractor costs observed in the industry. While we would agree that the average marginal cost of supply for global ethylene production may have increased in the long run owing to higher industry costs, in the near term, new capacity has amplified the cyclical nature of the sector. Indeed, we see SABIC as having been spending at the wrong time in the cycle. SABIC's capex guidance is SAR 110bn in 2007-10 to meet its aggressive petrochemical expansion plans (SABIC guidance is 80mt products by 2012). We do not see the company as delaying its current projects, but some marginal developments are likely to be put on hold. We have listed some of the key chemicals projects in the Middle East coming onstream in the medium term on page 71. Consequently, we expect some downward pressure on margins before some recovery from 2011 as operating rates recover owing to high-cost crackers being squeezed out of the market by lower-cost Middle East producers. With SABIC mainly geared to the export market, we expect lower chemicals prices and hence margins in the coming years.

Global ethylene supply/demand outlook

We expect ethylene supply growth at 6% pa relative to demand growth at 1-2% pa leading to an oversupply environment into 2010; however, we expect the market to tighten from 2012 as high-cost plants close and demand recovers



Source: CMAI, Nomura estimates

Recovery in naphtha, low-cost advantage maintained

SABIC is one of the lowest-cost petrochemicals producers in the world, mainly owing to the pricing structure of ethane in the country (see Appendix 5 on feedstock pricing in Saudi Arabia). Those petrochemical crackers in the country with a high ethane allocation have the most competitive cost position relative to those plants with greater butane, propane and especially naphtha feedstock configuration. For example, the following schematic shows our estimate of cash costs for a NE Asian naphtha cracker and a Saudi Arabian ethane cracker at the current naphtha price of ~\$380-400/ton and our long-run assumption of \$719/ton. This shows that Saudi Arabian crackers with high ethane allocation are one of

the lowest-cost producers. If we apply this methodology for SABIC relative to Petro Rabigh, one of its local peers, we estimate that Petro Rabigh's cash costs are ~\$90/ton compared with ~\$150/ton for SABIC's average portfolio. This partly reflects SABIC's operating exposure to the high-cost European chemicals sector.

Cash cost analysis

Price		1Q09		Long-run		
		NE Asia	Saudi	NE Asia	Saudi	
Ethylene	US\$/t	380	380	719	719	Nomura's long-run ethylene price assumption
Co-credits	US\$/t	285	285	539	539	
Naphtha	US\$/t	380	380	507	507	Nomura's long-run naphtha price assumption
Assumed yield split per tonne						
Ethylene	%	0.3	0.8	0.3	0.8	
Co-credits	%	0.7	0.2	0.7	0.2	
Cash cost calculation						
Raw materials	US\$/t	380	37.5	507	37.5	Assume no change to gas price in medium term
Co-credits	US\$/t	(195)	(54)	(369)	(103)	Assumes C4+C5 by-products at 25% of ethylene price
Variable	US\$/t	90	60	90	60	Other energy and processing costs
Fixed	US\$/t	44	95	44	95	
Logistics	US\$/t	0	40	0	40	Assumed freight Saudi to NE Asia
Cash cost	US\$/t	319	178	272	129	

Note: Data based on a hypothetical cracker in both regions.

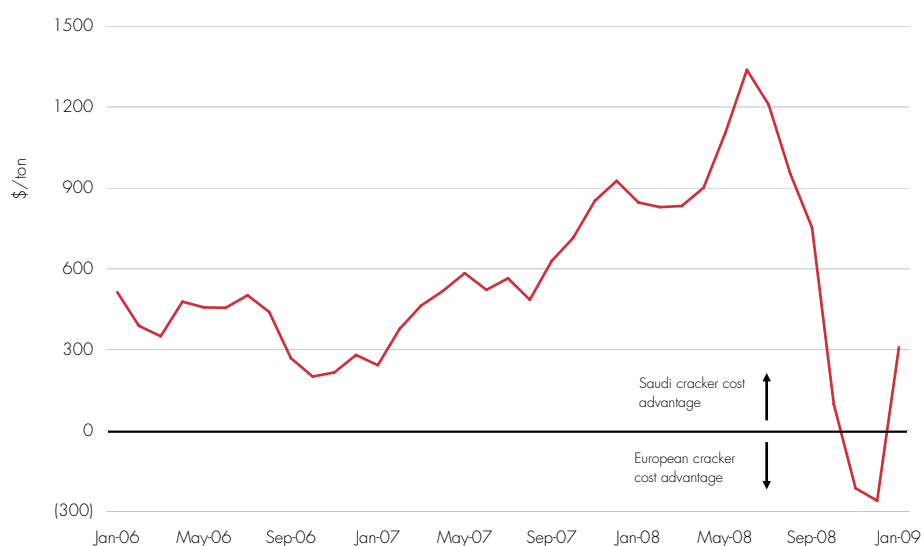
Source: CMAI, Nomura estimates

The collapse in oil prices and hence naphtha prices has put pressure on ethylene margins, closing the cost gap with naphtha crackers in Europe and Asia.¹⁴ For example, the cost advantage for Saudi Arabian ethylene producers relative to a low-cost European producer is shown in the next chart. However, we believe there will be recovery of naphtha prices in the medium term in line with our view on oil prices (\$75/bl from 2011F). As such, we expect a gradual recovery in ethylene margins as naphtha prices increase in the medium term. We forecast naphtha prices at \$461/ton in 2009 rising to \$507/ton in 2010.

¹⁴ Naphtha prices also fell sharply owing to reduced naphtha supplies from lower refinery operating rates in 4Q08.

Cost advantage for Saudi versus European crackers

Low naphtha prices have improved the cost competitiveness for naphtha crackers in Europe and Asia, but we expect naphtha prices to recover, preserving the long-run cost advantage for SABIC



Source: CMAI, Nomura estimates

Higher gas prices, limited effect on costs

We expect the new gas price in Saudi Arabia to be between \$1.25-1.50/mbtu

The gas cost advantage in Saudi Arabia is one of the most competitive in the world since most of the gas is associated and, hence, tends to be at lower prices than non-associated gas found in Qatar, for example. The government has fixed the price for gas at \$0.75/mbtu until 2011. Although the gas price in Saudi Arabia may officially rise from \$0.75/mbtu, largely to reflect the higher cost of production in the Kingdom, the exact level has yet to be announced. We expect the new gas price level to be in the \$1.25-1.50/mbtu range with the Ministry to announce a final ruling on the new gas price possibly in 2009. We see any further increases as a minor impact to SABIC's earnings since gas feedstock only represents 30% of SABIC's cost compared with up to 90% for many other producers.

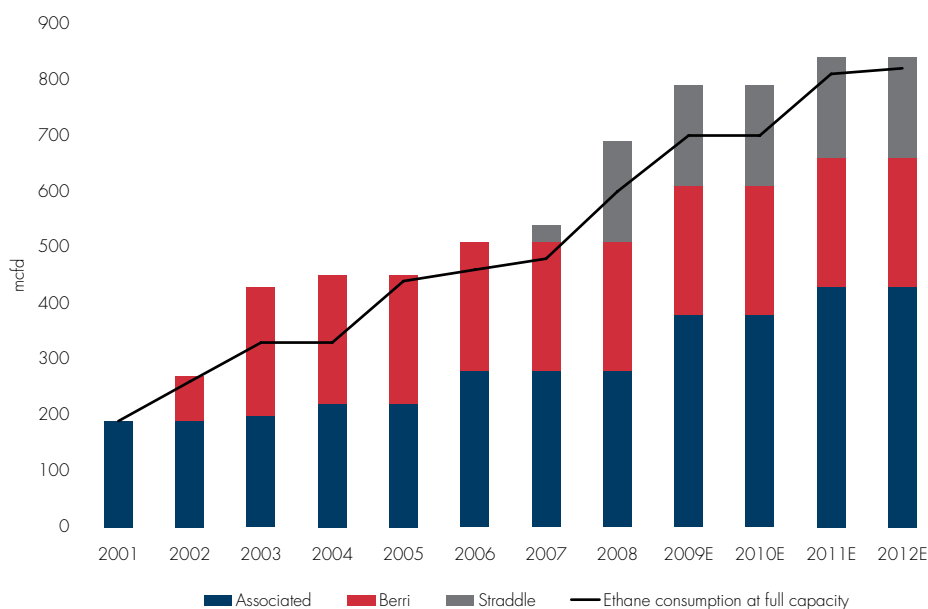
Gas availability concerns overdone

While we do not dispute that the cost of gas supply in Saudi Arabia has increased, as it has globally, we believe that concerns over gas availability in the Kingdom are a little premature. The country has a proven gas reserve life of 95 years, one of the highest in the world and gas has already been allocated for proposed projects into next decade. The supply outlook is shown in the next chart. We find it difficult to believe that companies would be proposing new projects such as Petro Rabigh's expansion, Dow's Ras Tanura petrochemical complex, into the next decade if there was limited gas availability. Aramco has already introduced foreign companies for gas exploration into the region to provide the technical and operations management expertise for gas developments. For example, Shell's participation in the South Rub al Khali gas project and proposals for further projects such as Aramco's Karan development. However, we would see any sustained Aramco production cuts from OPEC decisions as gradually tightening long-term gas supply. Since the majority

of Saudi gas used as feedstock for petrochemicals is associated (ie, produced with oil), continued crude oil production cuts by the Kingdom, owing to OPEC quotas, may tighten gas supply for new project proposals.¹⁵ While existing and approved projects have already received feedstock allocation from the government, decision making for new greenfield projects well into next decade may be delayed.

We expect Saudi Arabia to meet the gas requirements for new petrochemical projects, although we see gas prices increasing to reflect the higher cost of production for chemicals within the country

Saudi Arabia ethane supply/demand outlook



Source: CMAI, Nomura estimates

Near-term risk to earnings

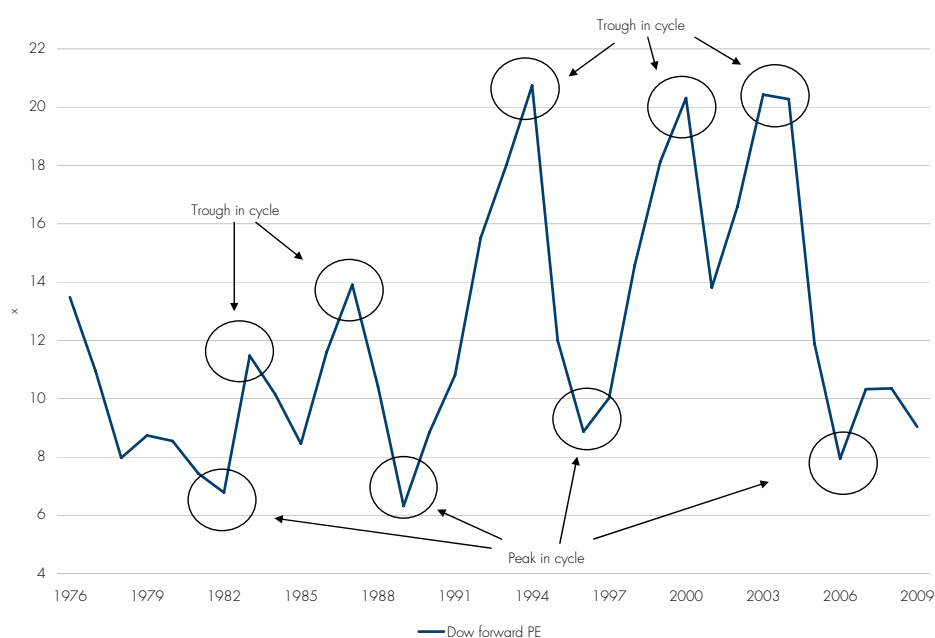
Typically commoditised petrochemical producers such as SABIC would expect to exhibit low P/Es during the top of the chemicals cycle owing to low investor expectation that earnings will be sustainable in the future owing to the cyclicity of the sector. Conversely, high P/Es would be expected near the trough of the cycle. As discussed above, we believe that 2009-10 represents a low point for ethylene margins. As a result, we would expect to see an expansion of SABIC's P/E as the market prices in a weakening margin environment. To examine whether this is the case, we have looked at other producers (which have similar commoditised chemical characteristics as SABIC) valuation performance through previous chemical's cycles to indicate whether SABIC's valuation is approaching trough multiples. For example, Dow Chemical has gradually diversified its chemicals portfolio toward high-margin speciality products similar to SABIC's current strategy. We have used Dow's forward P/Es as a proxy for a commoditised ethylene producer through the previous chemicals cycles, which is shown in the following chart. The analysis highlights that Dow tends to trade at high forward P/Es (>10x) at the bottom of the chemical cycle and low P/Es (<10x) at the peak. We forecast that SABIC trades at 11.8x

¹⁵ Saudi Arabia may cut oil production by 300k bls/d in 1Q09 on top of the 2.2mbls/d cut announced in December 2008 as OPEC continues to defend a higher oil price level.

and 11.4x P/E 2009-10F, respectively, while consensus forecasts suggest 6x over the same period. While we do not dispute that SABIC provides long-term value owing to its cost advantage, our analysis indicates that the market is only partly pricing in trough conditions. As such, there may be downside risk to earnings in the near term.

Historical forward P/Es for Dow Chemicals

Dow's historical P/Es would suggest that SABIC should trade at high P/Es during a chemicals trough, while this does not seem to be the case for 2009; hence, there may be downside risk to consensus earnings



Source: Datastream

Selected Middle East petrochemicals projects

Company	Project	Capacity	Start-up	Comments	Cost, \$m
Oman					
Oman India Fertiliser Company	Fertiliser (Urea) plant in Oman	Ammonia/urea plant in Oman, with a capacity of ~2mtpa	2012+	EPC award expected in second quarter of 2009	1,500-1,000
Qatar					
Honam/QP	Grassroots complex at Mesaieed	900ktpa of ethylene & derivatives	2012	EPC expected in 1Q09	1,500
ExxonMobil/QP	Grassroots olefins complex at Ras Laffan	New ethylene cracker plus 420ktpa of LDPE, 700ktpa of ethylene glycol	2012+	HoA for project development signed between ExxonMobil and QP in 2006. Award on PMS contract due imminently	4,000
Total/QP	Integrated olefins complex	Downstream ethylene products	n/a	Negotiations ongoing for the final investment agreement	4,000
Shell/QP	Integrated olefins complex	Downstream ethylene products	n/a	Negotiations ongoing for the final investment agreement	4,000
QATOFIN	PE Plant	450ktpa of LLDPE	2009/2010	Commissioning phase	1,500
QAFCO V	New ammonia and urea plant	3,.5kt/d of urea, 4.4kt/d of ammonia	2011	Joint venture of Snamprogetti and Hyundai Engineering & Construction won sole EPC contract	3,200
QAPCO	PE expansion	250ktpa of LDPE-3	3Q11	Tender for EPC contract due soon. Basell is the technology provider	5,500
Ras Laffan Olefins Cracker	New complex	1300ktpa ethylene and derivatives	2010	QP is understood to be in talks with potential partners from Europe and Japan about implementing project	1,000

Saudi Arabia

Aramco/Dow	Ras Tanura petrochemicals complex	Cracker producing 1.5 mtpa of ethylene, fed with 70mcf/d of ethane supplied from the Juaymah gas plant and 40k b/d of naphtha from the 550k b/d Ras Tanura refinery	2012+	Aramco split FEED between KBR, Foster Wheeler and Jacobs Engineering owing to complexity of project EPC award expected by the end 2009	22,000 - 26,000
Aramco/Sumitomo Chemical	Petro Rabigh	1.25mtpa ethylene unit	March 2009	Refinery operational, petrochemical units in testing awaiting start-up in March 2009	10,000
Aramco/Sumitomo Chemical	Petro Rabigh	Expansion of cracker, plus 17 new chemical derivative production facilities	2012+	Award for joint FEED/PMC contract due imminently. EPC award expected in 4Q09	2,000
Saudi Kayan	Jubail olefins complex	1.3mtpa mixed feedstock cracker, 1 mtpa of EO/EG, 250ktpa LLDPE, 600ktpa PP	2010	Saudi Kayan confirms engineering 93% completed. Commissioning is due in late 2009	9,000
Yansab	Olefins cracker	1.3mtpa ethane/propane cracker plus EG	1Q09	Technip EPC and Foster Wheeler PMC for project	5,000
Sipchem	Jubail olefins complex plus ammonia plant	1.2mtpa ethane/propane cracker plus bimodal HDPE, polypropylene, vinyl acetate, polyacrylonitrile and 1,650 t/d of ammonia	2012+	Negotiations ongoing for revised configuration to downsize project	8,000-7,000
NCP	New olefins complex	1.3mtpa ethane cracker plus derivatives	n/a	JGC Corporation and Dealim Industrial Company have won the two main EPC contracts	4,000
Al-Rajhi	Jubail petrochemical complex	Ethane cracker, PP and EG units	n/a	Negotiations ongoing for feedstock allocation	4,000
AAC	Ethylene amine plant at Jubail	300ktpa of ethylene amine derivatives	n/a	Team of Hanwha Engineering & Construction and Hyundai Engineering have won main EPC contract	200
Aramco	Yanbu petrochemicals complex (and refinery upgrade)	Steam cracker and aromatics complex	2014	Project under initial in-house study with marketing phase to start this year.	na
Hol, Sara, Midroc	Yanbu TDI /MDI complex	100ktpa of TDI and MDI	n/a	Chematur Engineering is FEED contractor	na
Petrokemya	Jubail vinyls complex	550ktpa of VCM and 450ktpa of suspension grade PVC	n/a	Technip and Aker Kvaerner are the FEED contractors. Solvay and OxyVinyls are licensing technology for PVC and VCM units	na
Sahara/Rohm & Haas	Acrylic complex	125ktpa of mixed acrylates and 80ktpa of super absorbent polymers	n/a	Sahara recently signed partnership agreement with Rohm & Haas	na

UAE

Chemaweyaat	Grassroots olefins, aromatics and urea complex at Taweelah	1.4mtpa naphtha cracker plus derivatives	2010	WorleyParsons recently awarded PMC contract. First EPC tenders due next year EPC award expected fourth quarter of 2009	11,000
Borouge	Second-phase Ruwais olefins complex expansion	1.4mtpa ethylene cracker plus 800ktpa of PP, 540ktpa of enhanced PE and a 750ktpa olefins conversion unit	2010	All EPC contracts awarded, with commissioning set for 2010. Foster Wheeler and Engineers India are PMC contractors. Tecnicas Reunidas awarded utilities and offsite work	5,000
Borouge	Third phase Ruwais olefins expansion	New ethane cracker plus downstream units (2.5mtpa olefins)	2014+	WorleyParsons recently awarded feasibility study	5,000
Fertil	Expansion of existing Ruwais fertiliser expansion	Installation of new urea and ammonia lines		ITB due to be issued in soon. Uhde is the FEED contractor. WorleyParsons is the PMS	700-800

Note: Table is not a comprehensive list of projects and excludes Iranian projects and other Middle East proposed developments.

Source: Company data, MEED, MEES, Zawya, Nomura estimates

Earnings and cost assumptions

The diverse nature of SABIC's business means that we have analysed the main drivers of the business rather than focus on all product types. While this may be a simplification, ethylene and its derivatives account for at least 50% of total products produced for SABIC. SABIC does provide a limited segmental split for petrochemical, fertiliser and steel earnings, which we have employed in our forecast. We forecast ethylene cash margins based on the same methodology published for Saudi Arabian ethane crackers. From 2009 onwards, we conservatively assume \$400/ton, a similar level observed in 2003, the last trough in the chemicals cycle. We assume a fixed gas price of \$0.75/mbtu and do not reflect any increase in gas prices until 2011. For SABIC's ethylene capacity, we assume a gradual ramp-up of Yansab in 2009 (gross 975ktpa), SHARQ start-up in 2011 and Saudi Kayan in 2010/11. Our ethylene margin and capacity outlook is highlighted below.

Key assumptions for SABIC

	2009F	2010F	2011F	2012F	2013F
Ethylene margin, \$/ton	400	400	400	400	400
change, y-o-y %	0%	0%	0%	0%	0%
Ethylene capacity, ktpa	10,175	10,500	11,800	11,800	13,150
change, y-o-y %	16%	3%	12%	0%	11%

Source: Nomura estimates

For capex, we assume SAR 27bn pa for 2009 and 2010. This is in line with SABIC's overall guidance of SAR 110bn between 2007 and 2010. We decline capex to average SAR 5bn from 2011-13. We forecast SG&A at 7% of net revenues and a tax rate of 4%.

Accounting under Saudi GAAP

SABIC accounts are reported under Saudi Organization of Certified Public Accountants (Saudi GAAP), which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. SABIC does provide segmental financial information for petrochemicals/fertiliser, steel and corporate, which have formed the basis to our sum-of-the-parts NAV. The company consolidates most of its JV businesses. Below the line, SABIC does have net financing items owing to the financing on its Sukuk issues. The tax charge of 4% relates to SABIC Europe.

All tables on page 75 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (Saudi GAAP)

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Ethylene margin SAR/ton	3729	3579	1500	1500	1500	1500	1500
Ethylene margin \$/ton	994	954	400	400	400	400	400
Exchange rate, SAR:\$	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Revenue							
Net Sales	126,204	152,439	104,099	110,048	116,130	122,224	134,559
Cost of Sales	(78,254)	(104,337)	(77,619)	(82,597)	(87,060)	(91,529)	(98,380)
SG&A	(6,904)	(10,834)	(6,110)	(6,264)	(6,582)	(6,905)	(8,194)
DD&A	(7,606)	(10,062)	(6,110)	(6,264)	(6,582)	(6,905)	(8,194)
Operating profit	41,047	37,268	20,370	21,186	22,487	23,791	27,985
Other income	4,230	4,406	3,009	3,181	3,357	3,533	3,889
Interest	2,869	4,172	4,589	5,048	5,553	6,108	6,719
Loss related to legal case	0	0	0	0	0	0	0
Minority Interest	13,585	14,080	6,388	6,568	6,899	7,213	8,553
Tax	1,800	1,400	701	721	757	792	939
Tax Rate	4%	4%	4%	4%	4%	4%	4%
Net Income	27,022	22,022	11,700	12,029	12,635	13,210	15,664
growth, y-o-y %	33%	(19%)	(47%)	3%	5%	5%	19%
Adjusted EPS, SAR	10.8	7.3	3.9	4.0	4.2	4.4	5.2
EPS growth, % pa	33%	(32%)	(47%)	3%	5%	5%	19%
DPS, SAR	3.0	3.0	2.0	2.0	2.1	2.2	2.6
Payout ratio	28%	41%	52%	50%	50%	50%	50%
DPS growth	(25%)	0%	(32%)	(1%)	5%	5%	19%

We expect low ethylene margins in the medium-term owing to lower chemicals demand and excess capacity

SABIC's tax rate relates to its operations in Europe

We expect a fall in earnings owing to lower chemical prices, although new capacity starting up will partly mitigate a decline in net income in the medium-term

SABIC's payout policy is 40-50%

Summary balance sheet

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	91,154	102,925	108,541	114,555	120,873	127,478	135,310
Minorities	43,342	43,497	43,497	43,497	43,497	43,497	43,497
Short term debt	4,671	3,973	3,973	3,973	3,973	3,973	3,973
Long term debt	57,982	88,449	73,579	59,262	64,393	73,884	85,891
Cash	(46,056)	(49,740)	(49,740)	(49,740)	(49,740)	(49,740)	(49,740)
Net debt	16,598	42,682	27,812	13,494	18,626	28,116	40,123
Capital employed	151,094	189,104	179,850	171,547	182,996	199,092	218,930

Net debt represents 23% of capital employed in 2008.

Balance sheet ratios

Net debt to equity, %	18%	41%	26%	12%	15%	22%	30%
Net debt capital, %	11%	23%	15%	8%	10%	14%	18%
RoACE, %	33%	22%	10%	11%	11%	11%	12%
RoAE, %	33%	23%	11%	11%	11%	11%	12%

Gearing remains at a relatively low level which provides SABIC will flexibility for possible acquisitions

Summary cash flow

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Adjusted net income	27,022	22,022	11,700	12,029	12,635	13,210	15,664
Adjusted DD&A	7,606	10,062	6,110	6,264	6,582	6,905	8,194
Minorities	13,585	14,080	6,388	6,568	6,899	7,213	8,553
Post tax interest charge on debt	830	2,134	1,391	675	931	1,406	2,006
Cash EBIDA	49,043	48,298	25,589	25,537	27,047	28,734	34,416
EBIDA per share	19.6	16.1	8.5	8.5	9.0	9.6	11.5
less: post tax interest charge	(830)	(2134)	(1391)	(675)	(931)	(1406)	(2006)
Adjusted movement in provisions	0	0	0	0	0	0	0
Working capital movement	11359	(1603)	0	0	0	0	0
Cash flow from operations	34,628	32,084	17,810	18,294	19,217	20,115	23,857
Capex	30,860	26,865	26,596	26,596	7,769	4,019	4,019
Dividends paid	8,796	10,282	6,084	6,015	6,317	6,605	7,832
Net cash flow from operations	(5,028)	(5,063)	(14,870)	(14,317)	5,131	9,491	12,007
Non recurring items							
Acquisitions	(43,232)	00	00	00	00	00	00
Divestments	0	0	0	0	0	0	0
Surplus (deficit) from our line items	(48,260)	(5,063)	(14,870)	(14,317)	5,131	9,491	12,007
Other movements	54,758	8,667	0	0	0	0	0
Net cash surplus (deficit)	6,499	3,605	(14,870)	(14,317)	5,131	9,491	12,007

High capex to 2010 relates to SABIC's expansion projects such as Saudi Kayan

Post 2010, SABIC generates strong cashflow after capex and dividends.

SABIC's major acquisition recently was GE Plastics for \$11.6bn in 2007. We expect the company to target new assets in Asia and central Europe

Industries Qatar – Organic growth rather than acquisition

Stock rating	NEUTRAL
Price, 19 Feb	QR 69.5
Price target	QR 95
Upside potential, %	37
Market cap, QRbn	38
Market cap, \$bn	11

Valuation	2009F	2010F
EPS	9.5	9.1
P/E	7.3	7.6
Div. Yield, %	6.8	6.6
EV/EBITDA, x	6.2	6.3

Performance, %	QTD	YTD
Absolute, QR	(31)	(31)
vs. market	(2)	(2)

Asset mix by business, %	
QAPCO & QAFAC	35
QAFCO	31
QASCO	34
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	10
Asia	90
Total	100

Earnings mix by business, %	
QASCO	19
QAFAC	9
QAFCO	43
QAPCO	28
Total	100

Catalyst dates	
Dividend announced	2Q/3Q09
LDPE-3 start-up	4Q09

Industries Qatar (IQ) is one of the Middle East's largest integrated basic metals, fertiliser, fuel additives and petrochemicals producers with most of its operations in Qatar. The company was established via the reorganisation of Qatar Petroleum (QP), Qatar's National Oil & Gas Company. Industries Qatar mainly comprises Qatar Steel Company (QASCO), Qatar Fertilizer Company (QAFCO), Qatar Fuel Additives Company (QAFAC) and Qatar Petrochemical Company (QAPCO), although the company has interests in other foreign and domestic businesses. The company's free float is 26%, although there is a foreign ownership restriction of 25%.

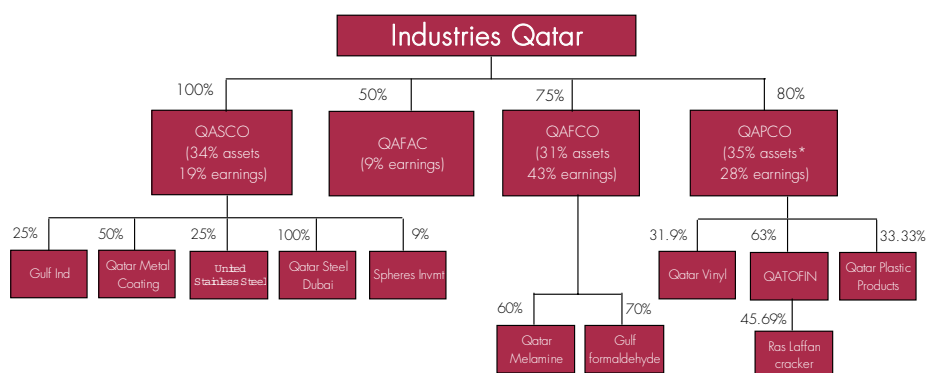
Brief history

1969	QAFCO established between Qatari gov't, Norsk Hydro, Davy Power and Hambros under Special Decree No. 44
1973	First QAFCO plant starts up
1974	QASCO established between Qatari gov't and Kobe Steel (20%) and Tokyo Boeki (10%) under Emiri Decree No. 130
1974	QAPCO established between Qatari gov't and Total (20%) under Emiri Decree No. 109
1978	QASCO steel production starts up
1981	QAPCO plant starts up
1991	QAFAC established under Emiri decree No. 20
1997	Qatari gov't acquires shares of Kobe Steel and Tokyo Boeki in QASCO
2003	QP reorganisation and government ownerships in QASCO transferred to QP
2003	QP shares in QAPCO, QAFCO, QASCO and QAFAC transferred to new company, Industries Qatar
2003	IQ IPOs on Doha stock exchange
2006	QASCO acquires 9.07% interest in iron ore producer, Sphere Investments
2008	IQ enters QR1 bn JV with Al Aqaria

Source: Company data, Nomura research

IQ's main activities are steel, petrochemical and fertiliser production for both international and GCC markets. In the medium term, IQ's strategy is to continue to expand production capacity in its key industries within Qatar. The diagram below shows how IQ is currently structured including key ownership structure and earnings split.

Corporate structure schematic



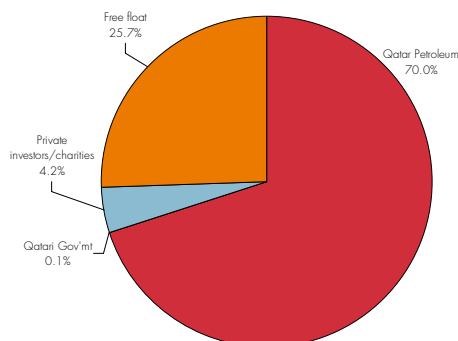
Note: * QAFAC's assets included in QAPCO.

Source: Company data, Nomura estimates

Shareholder structure

The Qatari government owns directly and indirectly almost 74% of IQ's shares (mainly via QP) with 26% free float, although there is a 25% foreign ownership restriction.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Mohammed S. M. Al-Sherawi, Chief Co-ordinator. Mr Al-Sherawi has co-ordinated the management of the group companies since 2003. Prior to joining Industries Qatar, he held many finance positions in Qatar Petroleum where he started work in 1982. He also holds other senior positions within the oil and gas industry in particular he is Director of Finance for Qatar Petroleum and on the board of director for Qatar Gas. He is a Qatari national.

Sheikh Nasser Bin Hamad Al-Thani, Director & General Manager (QASCO). Sheikh Nasser has been managing QASCO since 2000. Prior to his current role, he held several engineering and project management positions in Qatar Petroleum. He is also on the board of directors for other Qatari companies such as Qatar Steel, Qatar Shipping, Qatar Engineering & Construction Company.

Khalifa Abdullah Al-Suwaidi, Director of the Board and Managing Director (QAFCO). Mr Al-Suwaidi has been managing QAFCO since December 1997. He joined QAFCO as a chemical engineer in 1985 and has held a series of engineering and production management positions ever since. He is a Qatari national.

Rashid Misfer Al-Hajri, General Manager (QAFAC). Prior to joining QAFAC, Mr Al-Hajri held various finance positions in Qatar Petroleum.

Mohamed Yousef Al-Mulla, General Manager (QAPCO). Dr Al-Mulla has held his current position since 2002. He joined QAPCO in 1988 and has held a number of management positions.

Sum-of-the-parts NAV – Value from expansions

We initiate with a Neutral rating and a price target of QR 95/share

Our valuation approach for Industries Qatar is our sum-of-the-parts net asset value, whereby we calculate a DCF-based value for each main business segment – QAPCO, QAFCO, QASCO and QAFAC. For QAPCO and QAFCO, we have used published financial reports as a basis for our forecasts. A detailed explanation of our valuation methodology is highlighted in Appendix 2 and is consistent with our valuation methodology for other Chemicals and Metals producers. In addition, and to confirm the validity of our sum-of-the-parts analysis, we have also looked at another DCF valuation approach (not shown): a free cash flow DCF model with three distinct growth periods to reflect the medium-term growth from QAFCO and QAPCO expansions. Using both these approaches, we derive a share price target of QR 95/share, which indicates to us that Industries Qatar's shares provide 37% potential upside.

IQ discloses financial information on its business segments, which are by "petrochemicals & fuel additives", "steel" and "fertilisers". For each segment, we model product output including the announced (and funded) project expansions, and we assume capital continues to be invested until our terminal year, 2020. The associated cash flows drive our segment DCF valuation. This is similar to our other company valuations under coverage. The key assumptions employed within our NAV analysis are detailed below.

Key NAV assumptions

Assumptions		Notes
Long-run ethylene margin	\$400/ton	Assumes trough conditions
Ammonia prices	\$384/ton	Nomura long-run assumption
Urea prices	\$283/ton	Nomura long-run assumption
Steel prices	\$335/ton	Weighted-average assumption
Interest in QAFCO	75%	
Interest in QAPCO	80%	
Interest in QAFAC	50%	
Interest in QASCO	100%	
Natural gas	\$1.5/mbtu	Inflated by 10% pa
Number of ordinary shares, m	550	
Multiple for other & corporate	3	
Discount rate	10%	Discount rate assumption
Exchange rate, QR/\$	3.64	

Source: Nomura estimates

		Net asset value			
			QRm	QR/share	
<i>Our NAV calculation gives a rounded valuation of QR 95/sh</i>	QAFCO	NPV over asset life	22,090		
		PV working capital	(719)		
		Total	21,372	38.9	
	QASCO	NPV over asset life	7,560		
		PV working capital	286		
		Total	7,846	14.3	
	QAPCO	NPV over asset life	21,433		
		PV working capital	371		
		Total	21,804	39.6	
	QAFAC	NPV over asset life	2,640		
		PV working capital	0		
		Total	2,640	4.8	
	Other and corporate	2008 earnings	149	448	0.8
		P/E	3		
	Gross asset value			54,110	98.4
	Net debt			(2,103)	(3.8)
	Net asset value			52,007	94.6
Total value			52,007	94.6	
Shares outstanding			550		
NAV per share			95		

Source: Nomura estimates

Sensitivity by key segment

Since ethylene and urea prices and margins are key factors to IQ's valuation using our DCF-based methodology, we provide a sensitivity estimate to our price target in the following table. We have conducted a sensitivity analysis by varying for the main price drivers for each key segment. For example, we have conducted a sensitivity with ethylene margins in QAPCO, but we maintain our other price assumptions within the remaining segments.

Sensitivity analysis with ethylene margins in QAPCO to IQ's price target, QR/sh

IQ's NAV offers upside potential should ethylene margins and urea prices recover in the medium term

Discount rate	Medium-term ethylene margin, \$/ton								
	300	350	400	450	500	550	600	650	700
8.0%	93	99	106	113	120	127	134	141	147
8.5%	90	96	103	109	115	122	128	135	141
9.0%	88	94	100	106	111	117	123	129	135
9.5%	86	91	97	102	108	113	119	125	130
10.0%	84	89	94	99	105	110	115	120	126
10.5%	82	87	92	97	102	107	112	117	122
11.0%	81	85	90	95	99	104	109	113	118
11.5%	79	84	88	92	97	101	106	110	115
12.0%	78	82	86	91	95	99	103	107	111
12.5%	77	81	85	89	93	97	101	105	109
13.0%	76	80	83	87	91	95	99	102	106
13.5%	75	79	82	86	89	93	97	100	104

Source: Nomura estimates

Sensitivity analysis with Urea prices in QAFCO to IQ's price target, QR/sh

Discount rate	Medium-term urea price, \$/ton								
	100	200	300	400	500	600	700	800	900
8.0%	52	71	89	108	127	145	164	183	201
8.5%	52	69	87	104	122	139	157	175	192
9.0%	51	68	85	101	118	134	151	167	184
9.5%	51	67	83	98	114	129	145	161	176
10.0%	51	66	81	96	110	125	140	155	170
10.5%	51	65	79	93	107	121	136	150	164
11.0%	51	64	78	91	104	118	131	145	158
11.5%	50	63	76	89	102	115	128	141	153
12.0%	50	63	75	87	100	112	124	136	149
12.5%	50	62	74	86	97	109	121	133	145
13.0%	50	61	73	84	95	107	118	129	141
13.5%	50	61	72	83	94	104	115	126	137

Source: Nomura estimates

Valuation attractive on a global basis

In addition to our NAV valuation, we have compared IQ with both GCC and global petrochemical and fertiliser companies on a variety of valuation multiples. We appreciate that IQ's business is unique among many of these chemicals companies but see the peer group we have chosen as a representative globally. Our conclusions:

- IQ trades at 6.2x EV:EBITDA 09, in line with our European average, although a 28% discount to the US chemical average at 8.5x. While IQ's business is mainly selling commoditised products, its cost position and organic growth outlook warrants a premium to other chemical producers, in our view.
- IQ's dividend yield is 6.8%, higher than our European coverage and SABIC's yield as shown in the chart below. We see the dividend as more robust than other companies' owing to the large government holding (70% via QP).
- We see CAGR EPS 2009-13F at 6%, similar to SABIC owing to its capacity expansion plans.
- IQ's RoACE is 30% relative to 10% for SABIC in 2009, which reflects the company's expansion on existing sites rather than mainly new sites (eg, Saudi Kayan) and lower margins chemicals from outside Saudi Arabia for SABIC.

IQ dividend yield relative to European chemicals

IQ's dividend may be more robust than other chemical producers owing to the indirect government holding via QP



Source: Bloomberg, Nomura estimates. Ma'aden and Petro Rabigh do not currently pay dividends

Key positives

- **Low valuation globally:** IQ is trading on 6.2x EV:EBITDA 09 in line with our European chemicals average, although a discount to the US average. We see IQ's valuation as attractive for a long-term holding, although we are cautious in the near term owing to project delivery and downside risk to earnings from a weakening chemicals outlook. Relative to SABIC, IQ trades at a 40% EV:EBITDA 2009F discount and on this basis prefer IQ relative to SABIC for Middle East petrochemicals.
- **High capacity growth:** IQ plans to increase ethylene and ammonia/urea production by 1.5x and 2.7x, respectively, by 2012 (on a gross basis). This allows the company further economies of scale as its expansions are at existing sites and will become the largest single site producer of fertilisers in the world. This is reflected in the company's higher returns relative to SABIC, which is involved in more greenfield projects and has lower-margin production outside Saudi Arabia.
- **Feedstock availability:** IQ's relationship with Qatar Petroleum, the national oil company, means that gas feedstock for its chemical operations is readily available from the North field (Qatar has a reserve life of >100 years) and at low cost relative to non-GCC producers. The abundance of local feedstock reflects the company's organic growth strategy.
- **Organic growth rather than acquisitions:** While this may change in the medium term, IQ's strategy has tended to focus on organic growth via its JV companies rather than major acquisitions. This is in contrast to SABIC's strategy, which has relied on organic expansion as well as overseas acquisitions. This may reflect Saudi Arabia's desire to increase its exposure to high-margin, specialty products, but has meant IQ has reduced the risk of overpaying for chemicals assets.
- **International partnerships:** IQ's two key businesses, QAPCO and QAFCO, are joint ventures between Total (20%) and Yara (25%). This gives the company access to new technology and new capital together with improved marketing options for its products while still retaining overall control of the business.
- **Foreign ownership limit:** IQ has a foreign ownership limit of 25%. Recently, there has been a trend for companies in Qatar to start lifting foreign ownership limits, which is typically at the discretion of the company to propose to the government, for example, Gulf Cement and UDC. While IQ BoD refused to increase its foreign ownership limit to 49% at its board meeting last year, if this were to change, we would see any increase in this limit in the future as positive for the stock and the Qatari market since IQ equates to 10% of the index by recent traded volume.

Key negatives

- **Increasing exposure to fertiliser market:** IQ's growth plans rely heavily on ammonia and urea via QAFCO. We believe that the near-term outlook for these products is less positive than it was a few years ago owing to weakening demand and an increase in new capacity coming onstream.
- **Execution risks:** IQ has ~QR 21bn worth of expansion projects via its subsidiaries starting up in the medium term. Although we do not expect these projects to be cancelled, there are many GCC projects that are being delayed to leverage better contractor costs. We have been conservative in our assumptions and allowed for delays to IQ's projects.
- **Higher feedstock prices:** We have highlighted the risks that Saudi Arabia may increase its domestic gas prices from \$0.75/mbtu to \$1.25-1.50/mbtu, but see the country as less exposed to gas price escalation. Instead, Qatari gas is priced at ~\$1-2/mbtu but, unlike Saudi, may not be fixed and include escalation factors based on international prices. As such, we see greater upside risk on feedstock costs within IQ's petrochemicals business relative to SABIC's.
- **Real estate investments:** With the fundamentals for the Qatari real estate market less positive than a year ago, we see Industries Qatar QR 1bn JV with Al Aqaria in this sector as a distraction to its core strategy and expertise – petrochemicals and metals – and perhaps a limited way to diversify its earnings away from commoditised products.
- **Minority shareholder risks:** The operational similarities between IQ and SABIC are all too apparent, unfortunately so are the risks to minority shareholders. IQ's free float is only 26% and with limited desire to raise capital from the equity markets, management may have limited focus on its minority shareholders relative to the government's agenda of industrialisation.

Low-cost expansions

Industries Qatar, IQ, is the mostly state-run chemicals and steel producer conglomerate of Qatar with operations mainly located within the country. The company's main divisions are petrochemicals and fertiliser, which contribute ~75% of total group earnings. The company benefits from being located close to one of the largest gas resources in the world, the North field, and has mainly focused on organic growth via expansion at existing sites rather than overseas acquisitions. We highlight below some of the main points to our investment case.

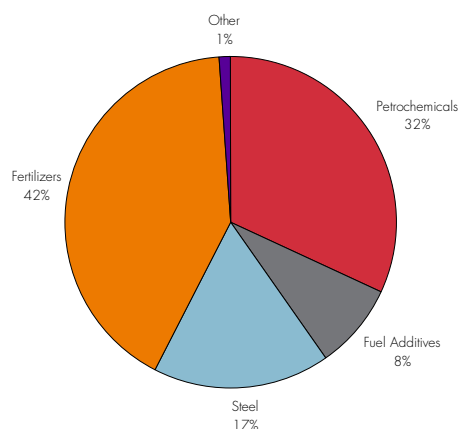
Benefits to a diversified business

IQ has a similar business structure to SABIC

IQ's diversified nature of its businesses mean the company has exposure to different global commodity prices and the ability to channel investment in those areas that are becoming less commoditised or provide higher margins. The similarities between IQ's business and SABIC's are all too apparent, albeit on a smaller scale. IQ's current earnings split is shown below. Although the company is making investments in all its business segments, the main earnings drivers in the medium term are petrochemical and fertiliser (ie, QAPCO and QAFCO), which we estimate will account for 75% of profitability in 2013.

Earnings split for IQ by segment 2008

Petrochemicals and fertiliser account for 75% of group earnings



Source: Company data, Nomura research

Petrochemical expansion may partly offset downturn

QAPCO's expansion plans contribute to the cyclical downturn in ethylene

IQ's petrochemical business is QAPCO (20% owned by Total), which contributes ~30% to IQ earnings with profit margins of 50%. The company has embarked on an ambitious series of expansion projects, which will increase capacity of ethylene and polyethylene products to 1.1mtpa and 3.0mtpa respectively by 2012 (on a gross basis). These projects benefit from feedstock availability from Qatar's North field (reserve life >100 years) and low-cost gas (\$1-2/mbtu) by virtue of the contractual arrangements with QP (Qatar Petroleum). As we highlighted with SABIC, we expect the Middle East's expansion projects to put downward pressure on ethylene margins in the medium term, with QAPCO's projects also helping to exacerbate the oversupply in the market; however, QAPCO's expansion plans may partly mitigate the downward pressure on ethylene margins in the near term. Nonetheless, while QAPCO does benefit from a cost advantage relative to non-GCC

producers, we do not see the company as cost competitive relative to the Saudi petrochemicals sector where gas and other feedstock is at lower cost.

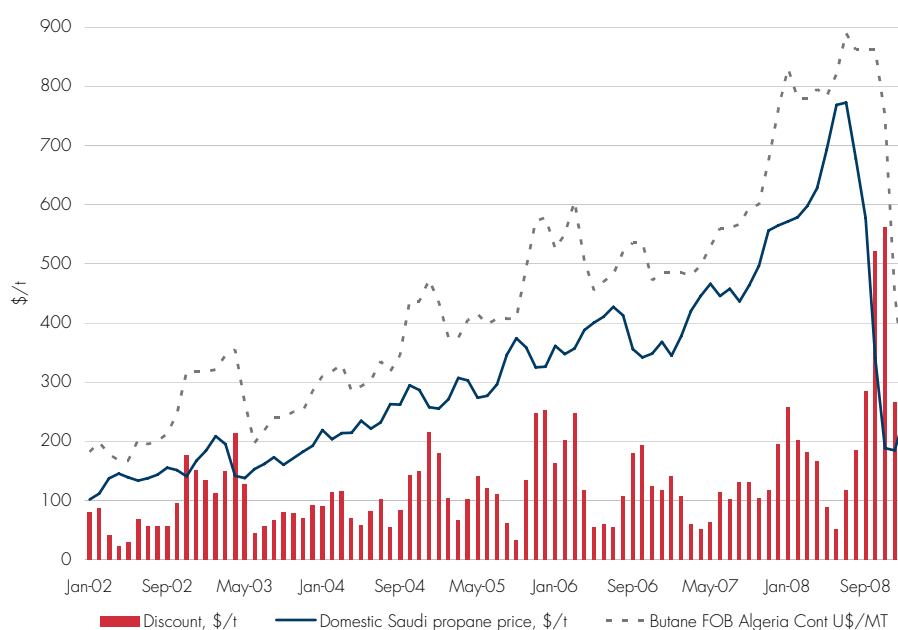
While QAPCO's feedstock costs are competitive globally, relative to Saudi producers, we see QAPCO at a cost disadvantage

Higher cost feedstock relative to Saudi producers

We believe that Saudi Arabia has a more favourable feedstock cost structure than Qatar. Prices for propane, butane and naphtha tend to be sold at international prices to petrochemical units whereas these products in Saudi Arabia are priced at a discount (see Appendix 5) as shown in the chart. This discount has averaged 30% between 2002 and 2008. Saudi Arabia's gas price is fixed at \$0.75/mbtu until 2011, which may be raised to a fixed price of \$1.25-1.5/mbtu in 2012; however, Qatari gas prices range from \$1-2/mbtu with escalation factor for some feedstock contracts with Qatar Petroleum. New petrochemical projects may be negotiated at gas prices of \$3/mbtu including an escalation factor. With international gas prices having averaged ~\$5/mbtu so far in 2009, Qatari gas pricing policy seems to be aimed at maximising gas value by balancing the gas pricing achieved by LNG relative to petrochemicals.

Saudi Arabian domestic butane, propane and naphtha prices are typically sold at a 30% discount relative to international prices

International versus Saudi Arabian butane pricing



Source: CMAI, Reuters, Nomura estimates

Increasing exposure to low-cost fertiliser

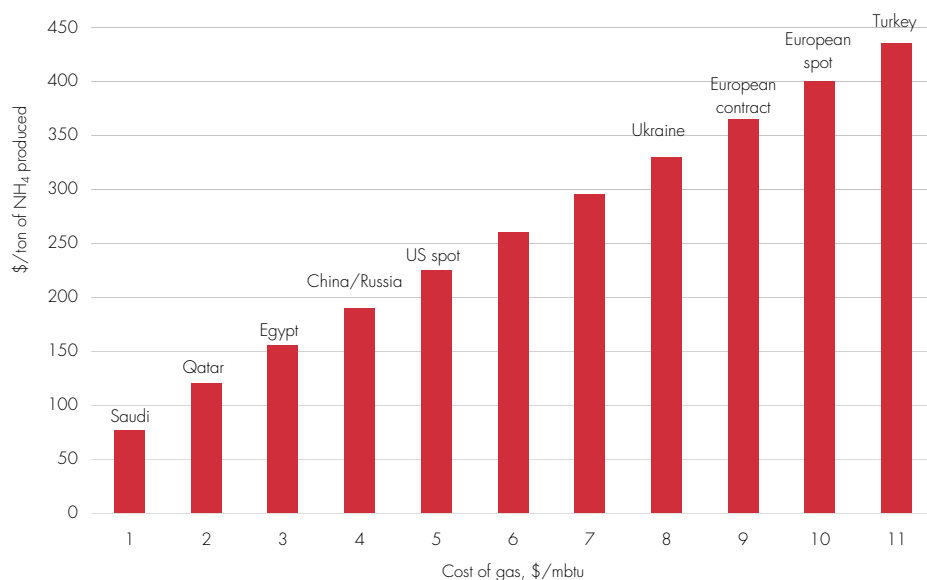
IQ's fertiliser business, QAFCO (25% owned by Yara), contributes ~40% to the group's earnings and has the highest profit margin within the group at ~80% in 2008. The company is the world's largest single-site producer of urea and ammonia.¹⁶ QAFCO's plant was started in 1973 and has since been expanded four times with the fifth expansion;

¹⁶ QAFCO is also constructing a 60ktpa melamine project for start-up in 2Q09 at a cost of QR 1bn.

QAFCO-5 expected to start up in 2011¹⁷, which will result in 5.2mtpa and 7.2mtpa of ammonia and urea capacity, respectively. The relationship between QAFCO and QP means that the company is also able to benefit from low-cost gas close to the production units, while Yara carries out a significant proportion of the product sales into the global fertiliser market. Since the cost of gas represents ~90% of the overall cash cost for Ammonia for many non-GCC producers, it provides QAFCO with a significant cost advantage. Typically, a \$1/mbtu increase in gas adds ~\$35/ton to the price of ammonia produced, according to Potash Corporation. Using this approximation, the chart below shows the cost advantage Qatar has relative to other countries. As a result, the company's profit margin is very competitive compared with other fertiliser producers.

QAFCO's is one of the lowest cost producers globally, although SABIC's fertiliser business, SAFCO (and Al Bayroni), obtains gas at lower costs

Qatar's competitive cost position relative to selected other countries*



*Costs will vary by company and only approximate gas prices are shown based on gas producer data or traded prices

Source: Company data, Nomura estimates

Near-term margin weakness

Ammonia and urea margins have fallen sharply thus far in 2009, which reflects lower global demand for fertilisers and an increase in inventories (other nitrogen-based fertiliser precursors such as potash are showing inventories in January up 39% above the five-year historical average, according to Potash Corp). We do not expect to see a recovery in nitrogen-based fertiliser margins in the coming year, although the closure of higher-cost plants (currently 10% of global urea capacity according to Yara), some increase in de-stocking and recovery or stability in demand may see margins recover early next decade. Since QAFCO is one of the lowest-cost producers owing to its feedstock advantage, we

¹⁷ Start-up is dependent on completion of a gas pipeline from Ras Laffan to Mesaieed in 2009, which will provide the gas feedstock. QAFCO has an agreement with Qatar Petroleum for supplying gas for 25 years from 18 June 1994.

expect the company to continue to run at higher operating rates than non-GCC producers and squeeze out competition from the market.

Ammonia and urea margins in Europe

While ammonia and urea margins peaked in 2008, we expect downward pressure on margins in the coming year



Source: ICIS, Nomura estimates

Earnings and cost assumptions

The nature of IQ's business means we have analysed each segment within the group. QAPCO and QAFCO provide financial statements each year, and we have based our analysis on this reported data. For QAFAC and QASCO, IQ provides revenue and earnings information, which has formed the basis to our forecasts. Our key assumptions are as follows:

- **QAPCO:** We have used the same methodology as SABIC's petrochemicals business and use an ethylene cash margin to generate our forecasts. We include QAPCO's share of ethylene production for Ras Laffan, QATOFIN LLDPE and LDPE-3, and assume 95% utilisation owing to the low-cost nature of the company's operations.
- **QAFCO:** We assume excess Ammonia will be sold to international market while the remaining volumes will go toward urea production. We also inflate natural gas prices by 10% pa from \$1.65/mbtu in 2009 consistent with our view that new production will be at higher prices including escalation factors.
- **QASCO:** Our steel prices are based on international prices with a discount for the local market (20-50%) and have also compared pricing with previous announcements by QASCO. We have included the replacement rebar mill at Jebel Ali Rebar and other capacity expansion projects in Qatar based on company guidance.
- **QAFAC:** We have based our capacity outlook on IQ's guidance and have included QAFAC's Melamine project at full capacity in 2009. We use the same natural gas price forecast as QAFCO.

Our key pricing assumptions are listed in the table below.

Commodity price assumptions

	2009F	2010F	2011F	2012F	2013F
Ammonia price \$/ton	359	333	384	384	384
Urea price \$/ton	440	391	283	283	283
Ethylene margin \$/ton	400	400	400	400	400
Methanol price \$/ton	809	820	1055	1047	1047
MTBE price \$/ton	484	490	658	680	680
Weighted average steel price, QR/ton	961	1,147	1,287	1,223	1,223
Natural gas price, \$/mbtu	1.7	1.8	2.0	2.2	2.4

Source: Nomura estimates

Accounting under IFRS

IQ accounts are reported under International Accounting Standards, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. IQ's main segments (ie, QAPCO) are accounted for on a proportional equity basis and financial performance by these segments is provided on a quarterly and an annual basis.

Below-the-line items relate to income from QAPCO and QAFCO's associates listed in the corporate schematic above and other income is mainly bank deposits. IQ does not have any tax expense, although QAFCO and QAPCO report tax charges owing to Yara and Total's interest in these JVs.

All tables on page 90 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)							
QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Ammonia price \$/ton	271	630	359	333	384	384	384
Urea price \$/ton	308	515	440	391	283	283	283
Ethylene margin \$/ton	994	954	400	400	400	400	400
Methanol price \$/ton	604	755	809	820	1055	1047	1047
MTBE price \$/ton	481	499	484	490	658	680	680
Weighted average Steel price, QR/ton	1400	2813	961	1147	1287	1223	1223
Natural gas price, \$/mbtu	1.1	1.5	1.7	1.8	2.0	2.2	2.4
Exchange rate, QR:\$	3.64	3.64	3.64	3.64	3.64	3.64	3.64
Revenue							
Petrochemicals	2153	3245	1851	2618	3327	3327	3327
Fuel Additives	1004	1411	635	677	869	880	880
Steel	3435	6115	2242	2466	3273	3713	3713
Fertilizers	2734	5048	3978	3558	4745	4792	4839
Gross revenue	9326	15820	8707	9319	12214	12711	12759
Cost of Goods Sold + SG&A	(4451)	(6686)	(3461)	(4083)	(5707)	(6136)	(5923)
DD&A	(399)	(652)	(663)	(854)	(983)	(978)	(960)
Net Operating Profit	4475	8481	4582	4382	5524	5598	5877
Interest Expense	(80)	(96)	(96)	(96)	(96)	(96)	(96)
Interest Income	230	0	0	0	0	0	0
Investment Income	159	0	0	0	0	0	0
Income from Associates	52	279	279	279	279	279	279
Foreign Exchange Gain/Loss	36	0	0	0	0	0	0
Other Income	111	461	461	461	461	461	461
Minority	(1)	(1)	0	0	0	0	0
Pretax profit	4983	9124	5225	5025	6167	6241	6520
Tax charge	0	0	0	0	0	0	0
Tax rate	0	0	0	0	0	0	0
Adjusted net income	4983	9124	5225	5025	6167	6241	6520
% change	38	83	(43)	(4)	23	1	4
Adjusted EPS, QR	10.0	16.6	9.5	9.1	11.2	11.3	11.9
EPS growth, % pa	38	66	(43)	(4)	23	1	4
DPS, QR	4.00	8.00	4.75	4.57	5.61	5.67	5.93
Payout ratio	40	48	50	50	50	50	50
DPS growth	(20)	100	(41)	(4)	23	1	4

Summary balance sheet							
QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	13,667	20,791	21,616	24,028	27,683	30,841	34,240
Minorities	11	0	0	0	0	0	0
Short term debt	1,084	1,084	1,084	1,084	1,084	1,084	1,084
Long term debt	2,358	2,985	747	(379)	127	2,845	5,684
Cash	(6,171)	(6,171)	(6,171)	(6,171)	(6,171)	(6,171)	(6,171)
Net debt	(2,730)	(2,103)	(4,340)	(5,466)	(4,961)	(2,243)	596
Capital employed	10,948	18,688	17,276	18,562	22,722	28,598	34,836
Balance sheet ratios							
Net debt to equity, %	20%	10%	20%	23%	18%	7%	(2%)
Net debt capital, %	25%	11%	25%	29%	22%	8%	(2%)
RoACE, %	52%	62%	30%	29%	30%	25%	21%
RoAE, %	40%	53%	25%	22%	24%	21%	20%

Summary cash flow							
QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Adjusted net income	4983	9124	5225	5025	6167	6241	6520
Minorities	(1)	(1)	0	0	0	0	0
Adjusted DD&A	399	652	663	854	983	978	960
Post tax interest charge on debt	(86)	(96)	(74)	(152)	(191)	(174)	(78)
Cash EBIDA	5295	9679	5815	5727	6959	7045	7401
less: post tax interest charge	86	96	74	152	191	174	78
Adjusted movement in provisions	35	0	0	0	0	0	0
Working capital movement	851	0	0	0	0	0	0
Cash flow from operations	6268	9775	5889	5879	7150	7219	7479
Capex (IQ share)							
QASCO	(865)	(1165)	(1165)	(1165)	(800)	(800)	(800)
QAPCO	(305)	(1320)	(1320)	(320)	(240)	(240)	(240)
QAFAC	(100)	(100)	(100)	(100)	(100)	(100)	(100)
QAFCO	(137)	(2163)	(2929)	(2908)	(2421)	(240)	(242)
Other	(1124)	0	0	0	0	0	0
Total capex	(2531)	(4748)	(5514)	(4493)	(3561)	(1380)	(1382)
Dividends paid	(2000)	(4400)	(2613)	(2512)	(3084)	(3120)	(3260)
Net cash flow from operations	1737	627	(2238)	(1126)	505	2718	2838
Non recurring items							
Acquisitions	(1016)	0	0	0	0	0	0
Divestments	0	0	0	0	0	0	0
Surplus (deficit) from our line items	721	627	(2238)	(1126)	505	2718	2838
Other movements	(184)	0	0	0	0	0	1
Net cash surplus (deficit)	537	627	(2238)	(1126)	505	2718	2839

Ma'aden – Diversifying away from gold

Stock rating	NEUTRAL
Price, 18 Feb	SAR 12.3
Price target	SAR 16
Upside potential, %	30
Market cap, SARbn	11
Market cap, \$bn	3

Valuation	2009F	2010F
EPS	0.35	0.32
P/E	35.4	38.7
P/B	0.7	0.7
EV/EBIDA, x	23.8	25.1

Performance, %	QTD	YTD
Absolute, SAR	15	15
vs. market	16	16

Asset mix by business, %	
Gold	100
Phosphate	0
Other	0
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	10
Asia	90
Total	100

Earnings mix by business, %	
Gold	100
Phosphate	0
Other	0
Total	100

Catalyst dates	
As Suk gold mine start-up	4Q09

Saudi Arabian Mining Company, known as Ma'aden, is Saudi Arabia's state mining and minerals group. With the government's intention to reduce the Kingdom's dependence on oil, Ma'aden is to become the "third pillar" of Saudi's industrialisation alongside Saudi Aramco and SABIC. Ma'aden's strategy is to develop phosphate, aluminium and other mineral resources in Saudi Arabia to diversify away from gold mining. The company's free float is 45%, although this is only available to GCC investors.

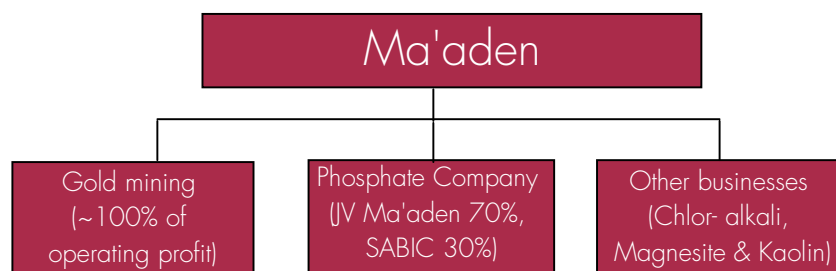
Brief history

1997	Founded as a Saudi joint stock company for the development of Saudi Arabia's mineral resources
1997	Zinc Plant commissioned at Mahd Ad'Dahab
2001	Mining and processing operation commissioned at Al Hajar
2002	Mining and processing operation commissioned at Bulghah
2007	Construction of the Al Amar mining and processing operation
2007	Entered into strategic partnership with SABIC to build one of the largest phosphate mines in the world
2007	Completion of a pre-feasibility study for the Ad-Duwayhi Development Property
2008	IPO on the Saudi Stock Exchange

Source: Company data, Nomura research

Ma'aden's main activity is gold mining and processing in Saudi Arabia, mainly selling gold for both international and GCC markets. However, the decline in gold reserves is leading Ma'aden to diversify into other mineral resources. The company has a JV with SABIC to develop a fully integrated phosphate plant in Saudi Arabia and had planned to develop an Aluminium project with Rio until the firm pulled out of the project. The diagram below shows how Ma'aden is currently structured including key ownership structure.

Corporate structure schematic*



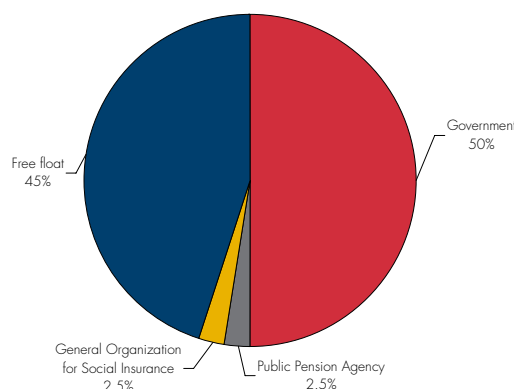
Source: Company data, Nomura estimates. *Based on 2008 data. Aluminium business not shown owing to project uncertainty

The largest division for Ma'aden is its gold business, which accounts for essentially all of the assets and operating profit; however, we expect this segment to represent <5% of operating profit by 2013 with the phosphate business contributing the remaining share.

Shareholder structure

The government of Saudi Arabia owns a 50% stake in Ma'aden with minor interests from the Public Pension Agency and Social Insurance-Saudi Arabia, with the remaining 45% free float, although there is a 100% foreign ownership restriction for non-GCC investors.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Dr Abdullah Issa Al-Dabbagh, President and CEO. Mr Dabbagh is the President and CEO of Ma'aden since its inception in 1997 and is a leading figure in administration, education, research and technological development in the Kingdom for over 20 years. He served as a member of the board of directors at Saudi Aramco (1989-96) and has been a member of the Chamber of Commerce and Industry in Riyadh since 2004.

Abdullah S Busfar, VP Aluminium SBU and Project Management. Abdullah Busfar is responsible for a wide range of projects, including the Aluminium Project. Prior to his current role, Mr Busfar served as VP, Industrial Affairs, and subsequently, as VP Corporate Projects, for five years. He is a member of the management committee and chairman of several other committees.

Dr Mohammed Hany Al-Dabbagh, VP Precious & Base Metals SBU and Exploration. Dr Hany Al-Dabbagh is responsible for precious and base metals mining operations of Ma'aden, including six gold mines and various exploration activities. Dr Al-Dabbagh has over 20 years of experience in the mining industry. Prior to joining Ma'aden, he had an active career in the oil industry and is a civil engineer.

Khalid S Al-Mudaifer - VP Phosphate and New Business Development & Marketing. Mudaifer joined Ma'aden in March 2006 as VP, Industrial Affairs. Prior to joining Ma'aden, he served as the General Manager and Board Secretary of Qassim Cement Company, where he oversaw a period of growth and efficiency gains. He spent the early years of his career with SHARQ where he held a number of roles culminating in his appointment as VP Finance. He continues to hold a number of public and board positions.

Sum-of-the-parts NAV – Phosphate project main value driver

We initiate with a Neutral rating and a price target of SAR 16/share

Our primary valuation approach for Ma'aden is our sum-of-the-parts net asset value, whereby we calculate a DCF-based value for each main business segment – gold and phosphate – although we have not included Ma'aden's aluminium project in our valuation. A detailed explanation of our valuation methodology is highlighted in Appendix 2 and is consistent with our valuation methodology for other chemicals and metal producers. Using this approach, we derive a share price target of SAR 16/share, which indicates to us that Ma'aden's shares provide 30% potential upside. The key assumptions employed within our NAV analysis are detailed below.

Key NAV assumptions

Assumptions		Notes
Gold price, \$/ton	650	Nomura's long-run assumption
Cash cost for phosphate, \$/ton	98	
Fees and other costs	10%	Additional 10% of the cost of operation
Marketing costs	4%	Additional 4% of the cost of sales
DAP production, mtpa	2.8	Company guidance
DAP price, \$/ton	369	Nomura's long-run assumption
Discount rate	10.1%	Discount rate assumption
Exchange rate, SAR/\$	3.75	

Source: Nomura estimates

Net asset value

	\$m	\$ per share
Gold		
Developed gold reserves	167	0.2
Undeveloped mineral reserves	593	0.6
Gold total	760	0.8
Phosphate		
Developed phosphate reserves	2,709	2.9
Phosphate total	2,709	2.9
Gross asset value	3,468	3.7
Net debt	475	0.5
Net Asset value	3,944	4.3
Total value	3,944	4.3
shares outstanding		925
NAV/share, SAR	16	

Source: Nomura estimates

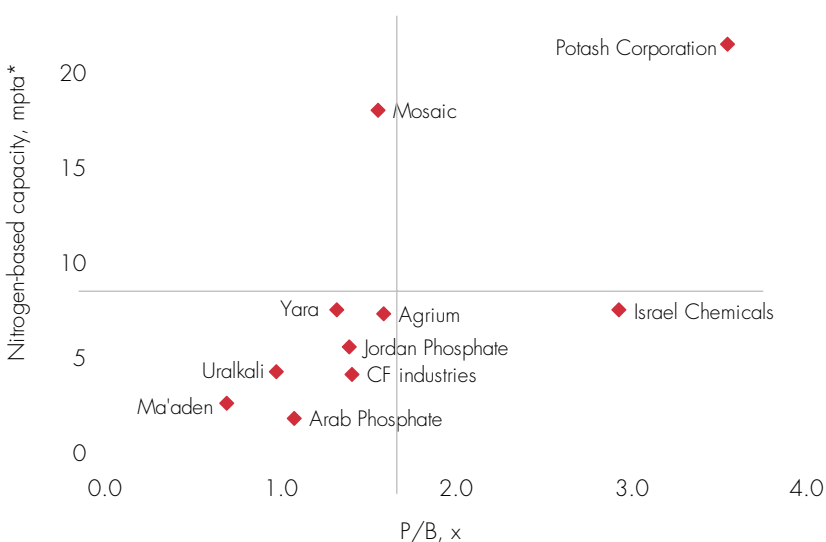
Valuation multiples reflect project visibility

In addition to our NAV valuation, we have compared Ma'aden with both emerging market and global petrochemical companies with most exposure to phosphate on a variety of valuation multiples, which we consider an appropriate peer group for benchmarking Ma'aden on an international basis. Since Ma'aden's profitability will be determined by phosphate, we do not believe comparables with other gold producers reflect a fair benchmark for the company. Our conclusions:

- Ma'aden trades on 23.8x EV:EBITDA 2009F relative to the average of 3.1x for the phosphate group, its closest peer group¹⁸ with respect to phosphate exposure, as shown in the chart below. A similar premium is observed on a P/E basis. While such earnings and cash flow multiples would suggest high expectations for the company's phosphate project, we see the quality of earnings and visibility over Ma'aden's gold declines and phosphate start-up distorting earnings. As such, price-to-book seems to us a more appropriate valuation multiple measure rather than earnings multiples.
- On price-to-book 2009F, Ma'aden trades at 0.5x, a significant discount to the peer group at 1.8x, as shown below relative to nitrogen-based producers.
- EPS CAGR 2009-13F is 71%, mainly owing to the start-up of the phosphate project, which we assume to ramp up from 2011.

Price-to-book versus phosphate exposure for selected nitrogen-based producers

We believe Ma'aden's price-to-book valuation is attractive relative to other major nitrogen-based producers, although risks remain over project start-up



Source: Potash Corp, Nomura estimates. *Capacity based on 2007 data for total nitrogen-based capacity. Data for Ma'aden includes expected phosphate capacity

¹⁸ Phosphate peer group includes Yara, Mosaic, Arab Potash, Jordan Phosphate, Israel Chemicals, Agrium, CF Industries and Uralkali from Bloomberg data

Key positives

- **Cost advantage and customer access:** Ma'aden's phosphate project relies on a reliable supply of sulphur and natural gas, which is provided by Aramco at competitive prices. As a result, Ma'aden's cash costs are ~\$100/ton for the project, significantly lower than other phosphate projects.
- **Experienced partner:** SABIC has a 30% stake in Ma'aden's phosphate company. The inclusion of SABIC in the project also provides Ma'aden will an experienced marketer of fertiliser products with access to end-users customers.
- **Value at higher DAP prices:** Since Ma'aden's main product in the medium term will be diammonium phosphate, DAP, the company is reliant on essentially a single product for its business in the long term. However, we do not believe the company will hedge its new production and our analysis suggests that the project is worth SAR 11/share on our long-run DAP price assumption of \$369/ton with significant upside should prices return to 2008 levels.
- **Sufficient funding:** Ma'aden capital structure (net cash SAR 1,783m) gives the company flexibility to raise debt to fund future projects, especially at competitive rates owing to its government ownership.¹⁹ The company's IPO has partly funded the company's phosphate project, a key driver to future earnings, and we would expect capital raising in the medium term should Ma'aden expand existing phosphate operations or develop other mining deposits in Saudi Arabia.
- **Integrated plant:** Ma'aden's phosphate operations mean the plant is integrated, mining phosphate rock and then producing phosphoric acid to DAP. The company expects to market any excess phosphoric acid locally, although it does have the flexibility to swing production from DAP to phosphoric acid to improve margins.

¹⁹ The company also signed a ~\$1bn loan agreement with the Saudi Arabian Public Investment Fund with no repayment for 4 years in July 2008

Key negatives

- **High multiples:** The change in Ma'aden's business mean the company trades on high earnings and cash flow multiples which fall toward 2011 owing to the contribution from its phosphate project. However, the quality and visibility of earnings mean price-to-book multiples provides a better measure of Ma'aden's value relative to its phosphate peer group. On this basis, Ma'aden trades at a 33% discount to the phosphate peer group on 2.1x price-to-book.

- **Execution risks:** Ma'aden expects to start up its Al Jamamid phosphate mine in 2011. While the project is 50% complete, the sharp fall in contractor costs are making some Middle East producers re-evaluate project economics and re-tender contractor fees, hence, delaying start-ups. We have assumed a delay to the project and include a conservative ramp-up period to full capacity in our forecast. In addition, Ma'aden's experience of phosphate mining is limited as the company historically has been associated with gold mining.

- **Government ownership:** The government owns 45% in Ma'aden, which supported the company's IPO in 2007 as a mechanism indirectly to spread the resource wealth of the Kingdom to its citizens; hence, the objectives of the government holding in Ma'aden may differ from those of minority shareholders. For example, the government may still want to preserve Ma'aden's resources for a long period as opposed to minority shareholders who would want to see more resources exploited sooner to maximise the project NPV.

- **Weaker phosphate market:** We expect the phosphate market to weaken in the medium term as new supply for phosphoric acid and DAP outstrips demand growth for phosphate-based fertilisers. We believe this will put downward pressure on DAP prices, which may limit a recovery to the levels observed in 2008.

- **Aluminium project unlikely in the medium term:** Ma'aden had entered into a \$10.5bn aluminium project joint venture with Rio Tinto to start up in 2012. However, Rio has decided not to proceed with the project, presumably owing to deterioration in project economics as a result of the weakness in metal prices. Abdullah Dabbagh, Ma'aden's CEO, has said the project will be executed in phases, but we believe a revised start-up date is likely to be closer to 2015. With no visibility on project financing and without a new partner, we do not include this project within our valuation.

A call on DAP prices?

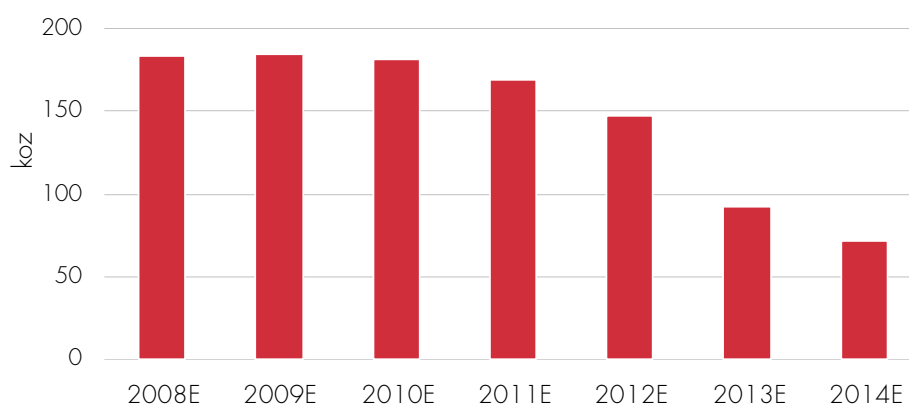
Ma'aden has historically been a gold mining company in Saudi Arabia, but the decline in gold deposits has led the company to diversify into phosphate mining for the production of diammonium phosphate to be sold into the fertiliser market. On our estimates, phosphate mining will contribute ~70% of Ma'aden's value.

Declining gold production

Ma'aden's gold business is involved in exploration of gold and base metals within Saudi Arabia. The company currently operates five gold mines in Saudi Arabia: Mahd Ad Dahab, Al Hajar, Sukhaybarat, Bulghah and Al Amar, and has a gold reserve life of only seven years.²⁰ The company accounts for 100% of gold produced in Saudi Arabia and <5% globally. The gold is mainly exported to international markets. Ma'aden's gold output is currently in decline, as shown in the chart below, with the last gold mine having started up in 2008 (Al Amar) and Bulghah expected to deplete fully in 2010, although it will continue processing until 2011. As a result, Ma'aden is developing a new mine at Ad Duwayhi with further exploration projects possible in coming years, such as As Suk gold mine, which is scheduled to startup in 4Q09. However, since we have limited visibility on some of Ma'aden's expansion projects, which are only in the exploration phase, we have not included these developments in our valuation.

Ma'aden's gold production outlook

Ma'aden's gold production is expected to decline. As a result, the company is developing alternative mining deposits in Saudi Arabia, such as phosphate



Source: Company data, Nomura estimates

Overall, we estimate Ma'aden's gold business accounts for 19% of our NAV and therefore any weakening fundamental in the macro environment for gold has a limited effect on our price target.

²⁰ This is based on gold reserves at 1.3m oz. The global average reserve life is ~15-20 years.

Phosphate project worth SAR 11/sh

The inclusion of SABIC in Ma'aden's phosphate project provides a strong partner to market DAP in the fertiliser market, while Aramco provides low-cost feed stocks such as gas and sulphur

Ma'aden will account for 20% of the global DAP fertiliser market on ramp up to full capacity of Al Jalamid phosphate mine

The declining nature of Ma'aden's gold business has led to the company expanding its operations into alternative deposits such as phosphate. Ma'aden's phosphate project is being developed as a joint venture with SABIC (30% stake) and is a fully integrated project. The company plans to exploit phosphate deposits located in Al Jalamid and utilise local natural gas and sulphur resources to manufacture Diammonium Phosphate (DAP, see below for a map of site and a description on the processing procedure) at the processing facilities located in Ras Az Zawr, both sites will be supported by industrial and social infrastructure.²¹ Aramco provides the natural gas via pipeline at \$0.75/mbtu and sulphur at below SAR300/ton, which allows Ma'aden to exploit its cost advantage relative to other phosphate miners. It is expected to be operational by 2011 at an estimated cost of \$5.6bn, although we believe a more realistic ramp-up to full capacity is closer to 2012, which we assume in our analysis. Ma'aden's phosphate resources at Al Jalamid are estimated at 534mt (net) and the company plans to mine 223mt (net) with expected mine production averaging approximately 12mtpa, ~6% of global production. It is estimated that the fertiliser production facility at Ras Az Zawr will produce just under 3mtpa of granular DAP, 0.4mtpa of excess ammonia and 0.2mtpa of excess phosphoric acid for sales to the international markets and domestic market. The project does represent a change in mining operations from the traditional gold mining to phosphate. However, the company has employed a number of experienced contractors to assist with the construction of the project such as WorleyParsons, Litwin and Outotec.

Ma'aden's phosphate project

Ma'aden's phosphate project allows easy access to export markets in Asia. The project has been delayed from original 2010 start-up and is expected to come onstream in 2011

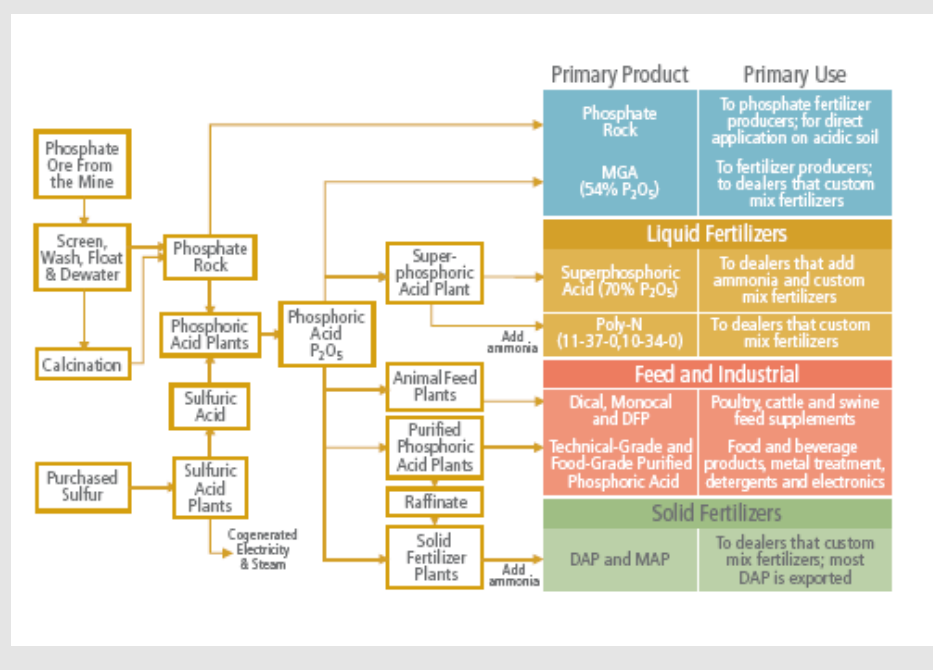


Source: Company data

²¹ Ma'aden's phosphate project's location means there is no availability of water and power for the production process. The company has determined that water can be sourced locally at the Tawil aquifer, but this requires a water extraction unit to supply the mine. Also, an IPP has been set up for power supply.

Diammonium phosphate conversion process

The mined ore is processed using a reagent, which converts the ore into a concentrate containing a high proportion of phosphorus pentoxide. This phosphate concentrate is transported to Jubail via rail to Ras Az Zawr, where the concentrate will be processed into DAP. This is done by the phosphate concentrate being dissolved in sulphuric acid to produce phosphoric acid (H_3PO_4). A sulphuric acid plant with capacity of ~4.7mtpa will handle the concentrate and will be supplied with ~1.5mtpa of sulphur by Aramco. The sulphur from the acid combines with the calcium phosphate concentrate to form a solid waste product, gypsum ($CaSO_4$), which is separated by filters. Ammonia from natural gas is added to the phosphoric acid, which produces DAP. This reaction produces a solid that is dried and granulated to about 3mm to form an easily handled product. The typical DAP fertiliser is adjusted with a filler to meet industry specifications. A schematic of the phosphate value chain is highlighted below:



Source: Materials World, Potash Corp

We estimate Ma'aden's phosphate project is worth SAR11/sh, approximately 70% of our price target

Since Ma'aden phosphate project is an important driver for the company's valuation, we have prepared a detailed analysis for Ma'aden's phosphate project, as shown below. We have included this analysis in our overall valuation for the company. Our analysis shows that this project is worth SAR 11/sh and will contribute 96% to Ma'aden's EBITDA in 2013 based on our long-run DAP price assumption of \$369/ton.

Ma'aden's phosphate project cash flow analysis

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	...	2032E
DAP capacity (mt)			1.5	2.9	2.9	2.9	2.9	2.9	2.9		2.9
Ammonia capacity (mt)			0.2	0.4	0.4	0.4	0.4	0.4	0.4		0.4
Phosphoric acid capacity (mt)			0.1	0.2	0.2	0.2	0.2	0.2	0.2		0.2
Capacity utilisation			95%	95%	95%	95%	95%	95%	95%		95%
Production (mt)											
DAP production (mt)			1.39	2.78	2.78	2.78	2.78	2.78	2.78		2.78
Ammonia production (mt)			0.21	0.42	0.42	0.42	0.42	0.42	0.42		0.42
Phosphoric acid production (mt)			0.08	0.15	0.15	0.15	0.15	0.15	0.15		0.15
Price assumptions											
DAP (\$/ton)			358	369	369	369	369	369	369		369
Ammonia (\$/ton)			429	479	479	479	479	479	479		479
Phosphoric acid (\$/ton)			700	700	700	700	700	700	700		700
Total revenue (\$m)			640	1,331	1,331	1,331	1,331	1,331	1,331		1,331
Operating costs (\$m)			136	272	272	272	272	272	272		183
Other fees and marketing costs (\$m)			39	80	80	80	80	80	80		72
EBITDA (\$m)			504	978	978	978	978	978	978		1,076
Capex (\$m)			(1,175)	(1,175)	(1,175)	(10)	(10)	(10)	(10)		(10)
Free cash flow (\$m)			(1,175)	(1,175)	(671)	968	968	968	968	968	1,066
PV			(1,067)	(969)	(503)	659	598	543	493	448	407
NPV total project (\$m)	3,797										
NPV to Ma'aden (\$m)	2,658										
NPV/sh to Ma'aden (SAR/sh)	10.8										

Source: Company data, Nomura estimates. Other assumptions for the model are highlighted in the NAV table above

Since the phosphate project and hence the DAP price is a key factor for Ma'aden's profitability, we provide a sensitivity analysis of the medium-term DAP price relative to the risk profile for Ma'aden in the table below. Our sensitivity is based on our modelling assumptions that use \$369/ton as our long-run DAP price.

Sensitivity analysis with DAP prices and discount rate for Ma'aden, SAR/sh

Ma'aden's NAV offers significant upside potential at higher DAP prices	Discount rate	Medium-term DAP price, \$/ton								
		250	300	350	400	450	500	550	600	650
8.0%	13	16	19	22	25	28	31	33	36	
8.5%	13	15	18	21	23	26	29	31	34	
9.0%	12	15	17	20	22	25	27	30	32	
9.5%	11	14	16	19	21	23	26	28	31	
10.0%	11	13	15	18	20	22	24	27	29	
10.5%	10	12	15	17	19	21	23	25	28	
11.0%	10	12	14	16	18	20	22	24	26	
11.5%	9	11	13	15	17	19	21	23	25	
12.0%	9	11	12	14	16	18	20	22	24	
12.5%	8	10	12	14	15	17	19	20	22	
13.0%	8	9	11	13	15	16	18	20	21	
13.5%	7	9	11	12	14	15	17	19	20	

Source: Nomura estimates

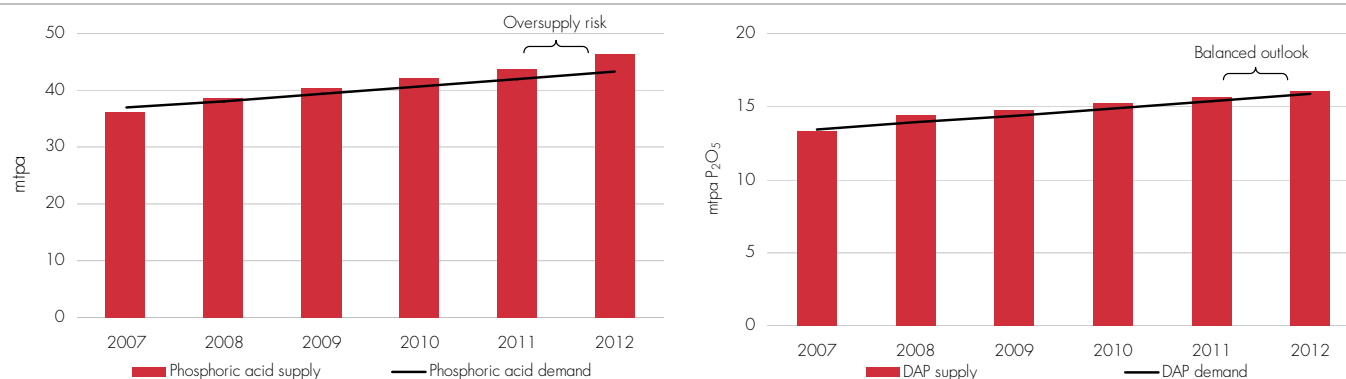
Phosphate expansions may dampen DAP prices

New capacity coming onstream from 2011 may put downward pressure on DAP prices in the next decade

Ma'aden's phosphate project may contribute to downward pressure on DAP on project start-up, although the low-cost nature of the project means less competitive producers will be squeezed out of the market

The Middle East accounts for ~9% of the global phosphate market in terms of reserves, with China and Morocco contributing 79%. Most phosphates, the finished fertiliser grade being DAP for example, are used as an ingredient in the production of fertilisers for use in agriculture. DAP prices have fallen sharply in 1Q09 to \$355/ton, relative to \$1005/ton in 2008 and \$295/ton, the five-year historical average, which we see partly owing to demand weakness rather than significant additions of new phosphate fertiliser supply. While there are a series of moving parts in the production of phosphate fertilisers, the outlook for phosphoric acid and DAP are particularly important. The IFA (International Fertilizer Industry Association) expects phosphoric acid supply growth at 5% pa, outstripping demand growth at 3% pa assuming operating rates at 87%. For DAP, the IFA show a more balanced outlook with demand expected to grow at 3% pa, only just matched by supply to 2012. However, with some exporters having the ability switch production away from other forms of phosphate, we believe there is potential for additional DAP onto the market. While demand estimates may be optimistic considering the worsening global economic outlook, the medium-term outlook for both products seems to indicate greater risk of oversupply rather than a tightening market. Ironically, Ma'aden's phosphate project contributes to the oversupply, and although the low-cost nature of the development may squeeze non-integrated competitors from the market, we see greater downside risk to DAP prices in the medium term. The chart below shows the supply and demand analysis for the global phosphoric acid and DAP.

Medium-term outlook for phosphoric acid and DAP



Source: IFA

Earnings and cost assumptions

Our commodity price assumptions are highlighted in the chart below. We forecast a long-run DAP price of \$369/ton consistent with our European Chemicals team (*Yara: No longer a value investment, Nomura research, 30 January 2009*). We have assumed that the realised gold prices for Ma'aden's will be at 10% discount to the LME gold price as forecast by Nomura's precious metals team (*Gold is losing investment appeal, Nomura research, 3 September 2008*).

Commodity price assumptions

	2009E	2010E	2011E	2012E	2013E
Gold price (\$/oz)	800	820	800	750	700
Phosphoric acid (\$/ton)	1048	1000	700	700	700
Ammonia (\$/ton)	323	364	429	479	479
DAP (\$/ton)	494	481	358	369	369

Source: Reuters, Nomura estimates

For Ma'aden's phosphate project, we assume production cash costs at \$98/ton and include an extra 10% of the cost of operations and 4% to the cost of sales for fees and marketing expenses respectively, in line with company guidance. We decline costs at 3% pa from 2020 to reflect cost benefits gained owing to efficiencies and our expectation of lower contractors' costs in response to our flat DAP price assumption. For Ma'aden's gold business, we assume cash costs at ~\$400/oz from 2009. For Ma'aden's phosphate project, we forecast capex at \$1.2bn pa 2009-12 since we assume capex at \$2bn in 2008 with overall project capex at \$5.6bn. For Ma'aden's gold project, we assume capex on average at ~\$10m pa from 2009 and do not assume increases owing to Ma'aden's expansion project at Ad-Duwahi.

Production outlook

For Ma'aden's Phosphate project, we have assumed start-up mid-2011 with the plant ramping up to 1.39mtpa, then full capacity at 2.78mtpa from 2012 onwards. We assume excess ammonia and phosphoric acid produced during the DAP production process is sold domestically. For gold production, we assume a gradual decline in output at 17% pa on average and do not include the new developments at Ad-Duwahi, although we have included known production start-ups. We have assumed the Bulghah mine is gradually depleted in 2011. A summary of our production profile is listed below.

Ma'aden's production outlook

Gold production by mine, koz	2008	2009E	2010E	2011E	2012E	2013E
Mahd Ad'Dahab	60	60	58	58	54	0
Al Amar	39	53	62	65	61	60
Bulghah	51	42	42	14	0	0
Sukhaybarat	18	14	12	12	12	12
Al Hazar	15	15	7	0	0	0
As Suk				20	20	20
Total	183	184	181	169	147	92
Phosphate production, (mtpa)						
DAP				1.39	2.78	2.78
Ammonia				0.21	0.42	0.42
Phosphoric Acid				0.08	0.08	0.16

Source: Nomura estimates

Accounting under Saudi GAAP

Ma'aden accounts are reported under Saudi GAAP, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. Below the line, we assume finance costs at 6% for Ma'aden's SAR 800m debt from 2009. We have also assumed that Ma'aden's joint venture phosphate project is accounted for under the proportional equity method since the company has not provided any guidance.

All tables on page 104 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)

	SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Summary income statement (IFRS)								
SAR, m								
Diammonium Phosphate, Attributable Prodn (mt)		0.00	0.00	0.00	0.00	0.97	1.94	1.94
Gold, Attributable Prodn (koz)		145.0	183.0	184.0	181.0	169.0	147.0	92.0
Exchange rate, SAR:\$		3.75	3.75	3.75	3.75	3.75	3.75	3.75
Gold Price (\$/oz)		697	873	800	820	800	750	700
DAP (\$/tonne)		438	1030	494	481	358	369	369
Phosphoric acid (\$/tonne)		501	1777	1048	1000	700	700	700
Ammonia (\$/tonne)		271	540	323	364	429	479	479
Phosphate-Attributable Revenue		0	0	0	0	1679	3494	3494
Gold-Attributable Revenue		244	460	497	501	456	372	217
Revenue		244	460	497	501	2136	3866	3711
COGS Ex Depreciation		129	149	162	176	176	927	823
Depreciation and Amortization		41	101	105	109	113	123	133
Gross Profit		74	210	230	216	1847	2816	2754
Administrative expense		129	305	161	174	189	205	223
Operating Profit		(54)	(95)	69	42	1658	2611	2532
Other Income		28	0	0	0	0	0	0
Investment income		226	294	300	300	300	300	300
Finance costs		0	0	48	48	48	48	48
Profit before tax		199	199	321	294	1910	2863	2784
Unusual Items		446	0	0	0	0	0	0
Profit after tax		(247)	199	321	294	1910	2863	2784
Minority interest		0	0	0	0	0	0	0
Net profit		(247)	199	321	294	1910	2863	2784
% change		n/a	n/a	62%	(9%)	550%	50%	(3%)
Adjusted EPS, SAR		(0.16)	0.21	0.35	0.32	2.06	3.10	3.01
EPS growth, % pa		n/a	n/a	62%	(9%)	550%	50%	(3%)

Summary balance sheet

	SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Summary balance sheet								
SAR, m								
Shareholders equity		5,484	16,383	16,704	16,998	18,908	21,771	24,555
Minorities		0	534	534	534	534	534	534
Long term debt		0	800	800	800	800	800	800
Cash		(596)	(2,583)	48	2,763	4,305	1,590	(1,298)
Net debt		(596)	(1,783)	848	3,563	5,105	2,390	(498)
Capital employed from debt		4,888	15,134	18,086	21,095	24,547	24,694	24,591
Net debt to equity, %		(11%)	(11%)	5%	21%	27%	11%	(2%)
Net debt to capital, %		(12%)	(12%)	5%	17%	21%	10%	(2%)
RoACE, %		(5%)	2%	2%	1%	8%	11%	11%
RoAE, %		(4%)	2%	2%	2%	11%	14%	12%

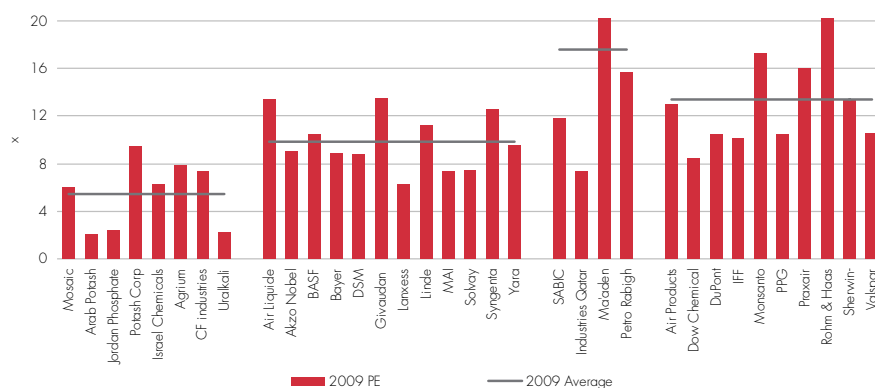
Summary cash flow

	SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Summary cash flow								
SAR, m								
Adjusted net income		(247)	199	321	294	1910	2863	2784
Minorities		0	0	0	0	0	0	0
Adjusted DD&A		41	101	105	109	113	123	133
Cash EBITDA		(206)	299	426	403	2023	2986	2917
EBITDA per share		(0.1)	0.3	0.5	0.4	2.2	3.2	3.2
less: post tax interest charge		0	0	0	0	0	0	0
Adjusted movement in provisions		235	(34)	0	0	0	0	0
Working capital movement		(675)	2706	70	4	(448)	(217)	7
Cash flow from operations		(647)	2971	496	406	1575	2769	2924
Capex		(142)	(5481)	(3127)	(3122)	(3117)	(53)	(37)
Dividends paid		0	0	0	0	0	0	0
Net cash flow from operations		(789)	(2510)	(2631)	(2716)	(1542)	2716	2887
per share		(0.5)	(2.7)	(2.8)	(2.9)	(1.7)	2.9	3.1
Non recurring items								
Acquisitions		0	0	0	0	0	0	0
Divestments		0	0	0	0	0	0	0
Share issuance (repurchase)		0	10462	0	0	0	0	0
Surplus (deficit) from our line items		(789)	7952	(2631)	(2716)	(1542)	2716	2887
Other movements		0	0	0	0	0	0	0
Net cash surplus (deficit)		(2052)	1399	(2631)	(2716)	(1542)	2716	2887

Selected relative valuation analysis – Petrochemicals

SABIC and IQ's average P/E valuation is a premium to the European peer group, although a discount to the US average. This may reflect the lower-cost advantage for these producers particularly when competing with naphtha crackers in Europe. We have included Petro Rabigh as a chemical company, which trades at a premium to SABIC in 2009F, but a 50% discount in 2010F. This reflects the company's lower cash costs relative to SABIC in Saudi Arabia.

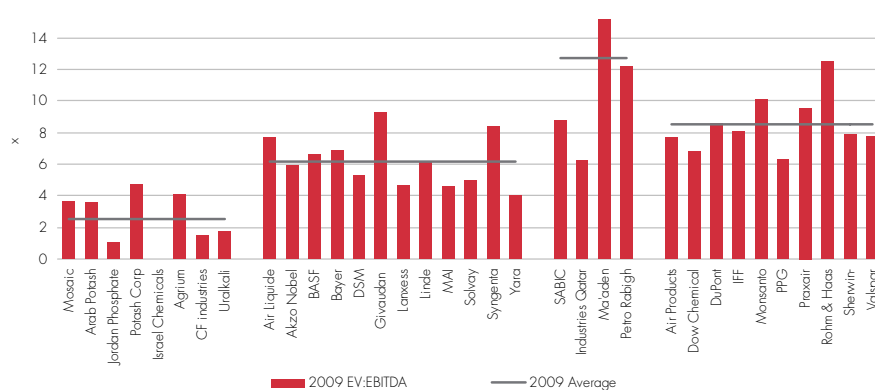
2009F P/E ratio



Source: Bloomberg, Nomura estimates.

EV/EBITDA for IQ is at a discount to SABIC, which reflects its lower exposure to Europe and new capacity starting up in 2009/10 relative to SABIC's additions in early next decade.

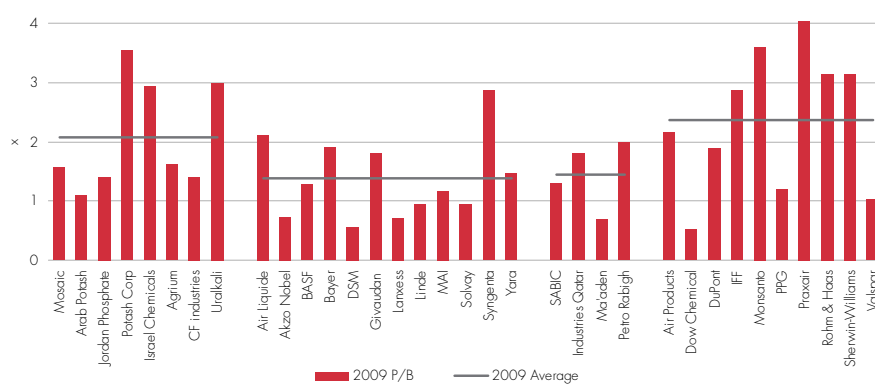
2009F EV/EBITDA



Source: Bloomberg, Nomura estimates.

On price-to-book both SABIC and IQ trade in line with the European average. Ma'aden looks most attractive on this measure partly owing to its recent IPO.

2009F P/B



Source: Bloomberg, Nomura estimates.

Power & utilities

Tabreed – Good value despite restructuring risks

Stock rating	BUY
Price, 19 Feb	AED 0.54
Price target	AED 0.8
Upside potential, %	48
Market cap, \$bn	0.2
Market cap, AEDbn	0.6

Valuation	2009F	2010F
EPS	0.04	0.05
P/E	13.3	10.2
P/B	0.5	0.5
EV/EBITDA, x	17.8	14.1

Performance, %	QTD	YTD
Absolute, AED	4	4
vs. market	10	10

Asset mix by business, %	
Services	2
Chilled water	89
Contracting	6
Manufacturing	3
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	100
Asia	0
Total	100

EBIT mix by business, %	
Services	39
Chilled water	24
Contracting	15
Manufacturing	22
Total	100

Catalyst dates	
Start-up of Dubai metro	Sep 09

Tabreed is one of the Middle East's largest providers of district cooling services. The company's activities are divided into: 1. contracting (technical/consulting); 2. services (converting buildings to district cooling); and 3. manufacturing district cooling, mainly in the UAE, although the company has several joint ventures in the GCC. The company's free float is 70%, although there is a foreign ownership restriction of 49%.

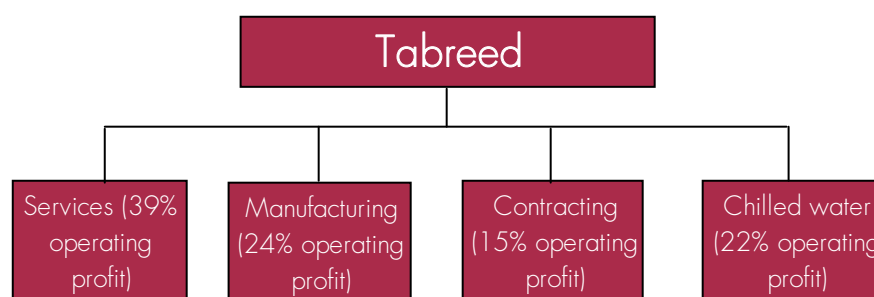
Brief history

1998	IPO on Abu Dhabi Stock Exchange
2000	Acquired Gulf Energy Systems
2006	Tabreed Bahrain established for cooling Bahrain Financial Harbour
2006	Tabreed Jordan established with 50:50 JV with Jordan District Energy
2007	Tabreed Captive Insurance Co. established
2007	JV with Aldar (A&T Cool) with equity capital at \$0.8bn established
2008	JV with Sorouh (S&T Cool District Cooling Co.) established
2008	Issues AED1.5bn (+AED200m) first ever convertible Sukuk
2008	Announces restructuring plan to sell assets and reorganize business. CEO replaced

Source: Company data, Nomura research

Tabreed's chilled water and manufacturing business represents the main part of the company's activities, accounting for 92% assets and 46% operating profit. While the contracting business has grown significantly, parts of the business may be non-core. In the medium term, Tabreed's strategy is to expand capacity in the GCC, while maintaining its leading position within the UAE. The diagram below shows how Tabreed is currently structured.

Corporate structure schematic

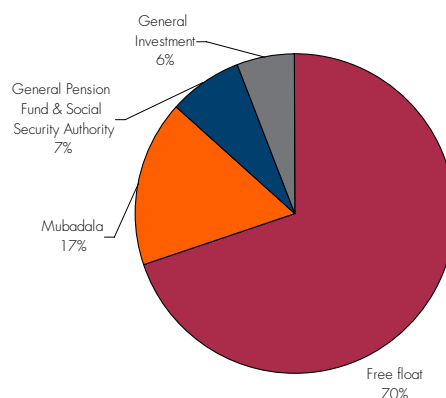


Source: Company data, Only the main functions are shown for simplicity, although the company is likely to change post restructuring. Tabreed's JVs not shown.

Shareholder structure

Tabreed's free float is ~70%, although there is a foreign ownership restriction of 49% for non-GCC investors with the remainder held by strategic investors.

Shareholders as at end 2008



Source: Company data, Nomura research. Chart does not include other strategic investors

Key senior management

Karl Marietta, CEO. Mr Marietta took over from Danny Safi as CEO in September 2008 having been Deputy CEO. Mr Marietta joined Tabreed in 1998 as Director of Finance and was CFO until 2008. Prior to joining Tabreed, Mr Marietta held senior management positions at leading international organisations including FVB District Energy Inc, District Energy St. Paul, Inc and Hibbing Public Utilities.

Abdulla Matar Al Muhairi, CFO. Mr Al Muhairi was appointed to CFO in 2007. Prior to his current position, Mr Al Muhairi started his career in the Central Bank of UAE in 1999 holding a variety banking activities before joining Tabreed. He is a UAE national and graduated in business and finance.

Khaled Salmeen Al Kawari, COO. Mr Al Kawari Tabreed's UAE operations, which includes business development for new plant schemes, customers and plant expansions. Prior to joining Tabreed, Mr Al Kawari held different positions at the Abu Dhabi Polymers Company and Borouge, part of the ADNOC Group as well as having managed energy investment projects in Masdar (Abu Dhabi Future Energy Company), part of Mubadala Development group.

Maged Fahmy, Projects Director. Prior to joining Tabreed, he held senior design and executive positions in both the Egyptian and UAE Armed Forces Engineering Corps.

James Kassim, Operations & Maintenance Director: Mr Kassim oversees Tabreed's operations and has more than 20 years in various manufacturing industries.

DCF valuation – Upside even at lower capacity

We initiate with a Buy rating and a price target of AED 0.8/share

The nature of Tabreed's restructuring means we have employed a DCF valuation owing to the integrated nature of the business which is consistent with our valuation methodology for other utility companies (see Appendix 2). The uncertainty around Tabreed's restructuring and the projects already under construction means that we have preferred to forecast cash flows to 2020 and then apply a growth rate to our terminal value. Using this approach, we derive a share price target of AED 0.8/share, which indicates to us that Tabreed's shares provide 48% potential upside.

DCF valuation for Tabreed

		2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
EBIT	AEDm	202	257	306	358	413	472	642	712	786	865	952	1048
Tax Rate		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NOPAT	AEDm	202	257	306	358	413	472	642	712	786	865	952	1048
Depreciation	AEDm	(11)	(12)	(13)	(15)	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(19)
Gross Cash Flow	AEDm	213	269	319	373	429	490	662	731	805	885	971	1067
Capex	AEDm	(1,000)	(750)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)
FCF	AEDm	(787)	(481)	269	323	379	440	612	681	755	835	921	1017
Discount rate		12%											
Terminal growth rate		2.5%											
NPV 2009-2020	AEDm	1,409											
PV at Terminal Value	AEDm	2,977											
Total Value	AEDm	4,386											
- Net Debt	AEDm	(3,629)											
+ Investments	AEDm	268											
- Minorities	AEDm	(162)											
Equity Value	AEDm	863											
Number of shares	m	1,124											
Share Price	AED/sh	0.8											

Source: Nomura estimates

Low valuation multiples reflect restructuring concerns

We have compared Tabreed with both emerging market and European utility companies on a variety of valuation multiples.²² While there are limited publicly listed district cooling firms in the Middle East and globally, we believe this is the most appropriate benchmark since the tariff structure and service of Tabreed's businesses are similar to a utility-style sector rather than the diversified nature of construction companies in the region. Our conclusions:

- Tabreed trades on 17.8x EV:EBITDA 2009F a significant premium to the average for European and Asian utility companies on 8.4x. Similar to SEC, the limited visibility (from restructuring) and seasonal nature of Tabreed's business mean that price-to-book multiples provide an alternative way to benchmark the business. On this basis, Tabreed trades at 0.5x P/B relative to 1.6x and 1.3x P/B, the average for the European and Asian utility group respectively.
- Average EPS CAGR is 39% 2009-13F, which reflects the company's new refrigeration capacity coming onstream and our expectation of slightly higher margins in the medium term.
- Tabreed's high gearing (net debt to capital 64% including convertible Sukuk equity proportion as debt) is reflected in its low returns (RoE was 6% in 2008), which the company is aiming to address via its restructuring plan.

²² Data is based on average multiples for Nomura's coverage for utility companies in Europe and Asia. This benchmark applies for comparing valuation multiples for QEWC and SEC. All prices at close 19 February.

Key positives

- **Beneficial contract structure:** Tabreed's contract and tariff structure is inflation indexed and allows all electricity and gas consumed in the district cooling to be passed-on directly to the customer, thus mitigating fluctuations in feedstock costs. Tabreed's cooling tariffs are also indexed to inflation.
- **Management changes:** Tabreed recently replaced its long-standing CEO, Dany Safi with Karl Marietta who was CFO and has been with the company since inception. We see this as a prudent move considering the company's financial restructuring.
- **JV to minimise risks:** Tabreed has been successful in entering into joint ventures with typically real estate developers in other GCC countries outside Abu Dhabi. This allows the company to minimise risks and test its business model in other countries.
- **Low valuation:** Tabreed trades on 0.5x price-to-book 2009F, a discount to our utilities coverage (SEC and GEWC); however, we believe this discount reflects the liquidity issues within the company and slower growth outlook in the real estate sector. Nonetheless, with the shares trading near absolute and relative to the UAE market lows on our lower capacity growth outlook, we still see the current valuation as a good entry for long-term investors.
- **Integrated business model:** The business model for Tabreed means the company manufactures, services and contracts for district cooling services so is able to capture margins for a specific segment rather than having leverage to one part of the value chain thereby limiting optimisation opportunities. In addition, lower contractor and materials prices in Abu Dhabi may also allow the company to reduce costs of manufacturing and hence increase margins in this segment.

Key negatives

- **Real estate slowdown:** Tabreed's district cooling capacity growth has averaged 38% pa over the 2003-08 period. However, we believe this is likely to slow to 20% owing to the company's selective allocation of capital and the overall slowdown in construction projects in the GCC. Nonetheless, not all of Tabreed's projects are linked to commercial real estate, 55% of the company's revenues come from the military.
- **Sell down of strategic shareholders:** The shareholder structure means that Tabreed is more exposed to strategic shareholders reducing positions to fund alternatives investments relative to most of our Middle East coverage, which has high government ownership. We believe many of Tabreed's shareholders are invested for the long term, and we see a significant sell-down of these owners as unlikely especially at the current valuation.²³
- **Highly geared:** Tabreed's gearing is 64%, and we estimate there is \$300m to be refinanced in 2009-11. With the current liquidity environment, we see a difficult period for Tabreed to maintain its future capex schedule as well as refinance existing debt obligations. We do not expect the company to pay a dividend in the medium term, although we see the company as well positioned to meet its refinancing obligations.
- **Increased competition:** We estimate Tabreed's market share in the cooling sector is ~20% in the GCC. There are ~7 new entrants into the market that provide cooling services, although not all district cooling. These may slowly erode Tabreed's market share and lower margins in the medium term.
- **Discounted asset sales:** The decision for Tabreed to sell operating and non-core assets to restructure its balance sheet in the current financial markets will be a challenge. The company is a distressed seller and may need to discount assets to attract buyers.

²³ The liquidity crisis has made some governments in the GCC ask local and sovereign wealth funds to invest in local businesses. The Qatar Investment Authority, QIA, is to buy 10-20% in local listed banks to boost confidence and liquidity and has bought into such as First Finance Co. The Kuwait Investment Authority, KIA, has bought a 16% stake in Gulf Bank.

Leader in district cooling

Tabreed is one of the largest district cooling providers in the Middle East, providing ~0.4m tonnes of refrigeration capacity in 2008 with projects concentrated in the UAE. The company originally provided cooling services for the UAE military, which account for 55% of total revenues and are typically at higher margins relative to other projects. However, Tabreed has expanded into the commercial real estate over the last few years, particularly in Abu Dhabi. In this section, we highlight some of the key points that support our investment case for Tabreed.

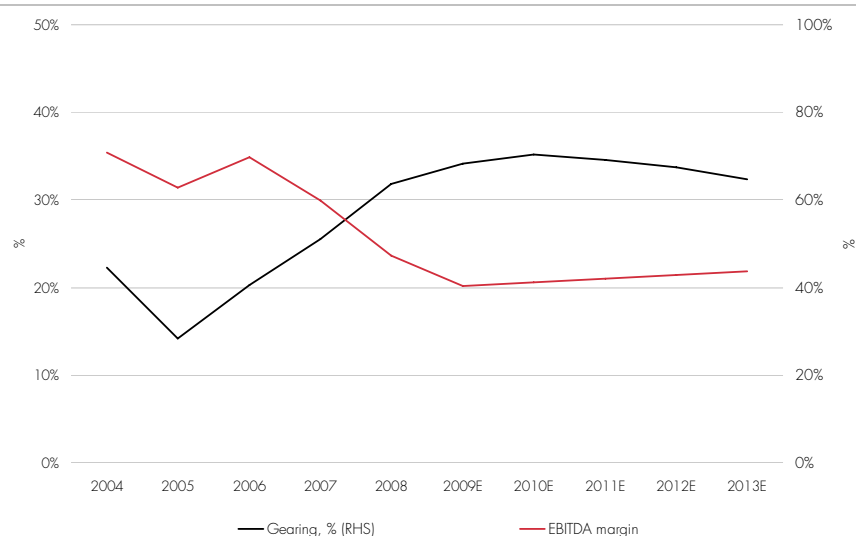
Restructuring may take time

Tabreed's increased gearing has led to a restructuring plan and asset sales

Tabreed plans to restructure its business in 2009 by initially selling currently operating district cooling and non-core assets possibly to GCC infrastructure funds and reduce its gearing. The company will also group all non-UAE investments under Tabreed Holdings and may reduce its share ownership in some businesses. Tabreed's board of directors also approved a plan to improve the organisational structure of the company. While Tabreed is the world's leader in district cooling, these measures suggest to us that the company has grown too quickly and lacked financial discipline. Tabreed has relied on Sukuk and other debt issues to help finance its capacity expansion and capital schedule. The company issued an AED 1.5bn (plus an option to increase to AED 200m) convertible bond in 2008 and currently has \$100m and \$200m Sukuk to refinance in 2009 and 2011, with limited refinancing in 2010. The company suggests that a short-term bridge credit facility is in place to meet these financing obligations and construction projects for the next years. The company's net debt to capital was 64% at end 2008²⁴, which has led the company to restructure the business and sell non-core assets. We believe the company's restructuring plans will be a challenge in the current market environment and especially with limited visibility on the buyers of non-core asset. The chart shows the increase Tabreed's leverage.

²⁴ We include AED1.3m equity component as debt in our calculation as Tabreed's convertible bonds are unlikely to be converted.

Tabreed's gearing



Source: Company data, Nomura estimates

Attractive tariff structure and customer base

Tabreed provides ~55% of its services to military and government entities, which we see as positive in the current liquidity environment

Tabreed's business historically was developed by providing district cooling services to the UAE military and other government agencies. These entities contribute ~55% of Tabreed's revenue base, and although the company has gradually diversified into non-military clients, as shown below, we see the relatively high proportion of secure military customers²⁵ as an important factor for the company in the medium term. In addition, Tabreed's contract structure allows the company to pass on energy costs to the consumer as well as being inflation linked. The manufacturing of the cooling units also protects Tabreed from the higher materials costs as the company can pass through these costs to the customer. These costs account for ~30% of the overall cost of construction (the remaining costs include piping and equipment such as cooling tower and chilling units). In addition, lower costs and availability for contractors owing to the collapse of the Dubai real estate sector may help the company to reduce its overall costs per tonne of installed capacity from AED10k per TR (tonnes of refrigeration capacity) to AED 9.5-9.0k per TR. If Tabreed was able to reduce its construction costs to AED 9k pr TR on an average 30k TR project, we estimate the company could improve project value by AED 25m,

Lower capacity growth, but...

We expect Tabreed's capacity growth to slow in the medium term owing to the slowdown of some projects in the UAE

Tabreed provides 20% of the total cooling sector in the Middle East²⁶ with its main developments in the UAE. The company is differentiated from other cooling companies in that it uses district cooling as opposed to traditional cooling services (see below for background to district cooling). Tabreed's district cooling capacity is ~400kTR and growth

²⁵ Military customers and government entities typically provide Tabreed with higher returns than the company's 13% IRR hurdle rate

²⁶ Based on GCC refrigeration capacity of 1.8mTR according to MEED

has been impressive at on average 38% pa between 2003-08, which is mainly driven by the increase in both government and commercial real estate construction.

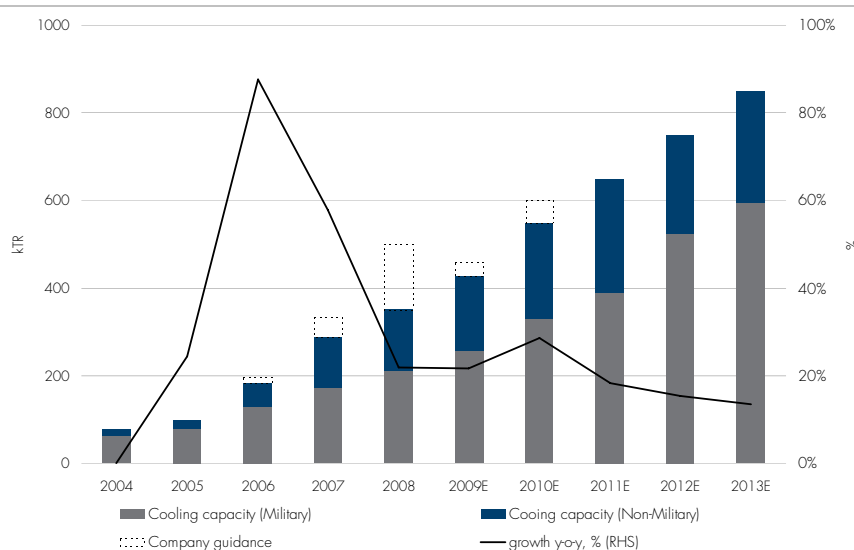
... limited exposure to Dubai commercial real estate

Tabreed has limited exposure to Dubai real estate, which has experienced a significant slowdown recently

Although we believe there are many real estate or other construction developments that may be delayed or cancelled, many of these tend to be in Dubai, where the real estate slowdown is particularly severe. Tabreed's projects are mainly based in Abu Dhabi, which does not seem to be experiencing such a slowdown in projects. In addition, Tabreed's projects in Dubai (Sheik Zayed road unit is sold out) are mainly related to the Dubai Metro, which is likely to start up in September 2009. With such a landmark project for the Emirate, we believe the first part of the metro line will be fully operational (ie, the red line from Jebel Ali to Dubai airport), which is the only part of the metro system whereby Tabreed is providing cooling services.²⁷

Tabreed's district cooling capacity outlook

We forecast 20% pa average capacity growth 2008-13



Source: Company data, Nomura estimates

However, we have taken a conservative view on Tabreed's capacity outlook in our assumptions relative to company guidance (see chart above). We forecast on average 20% pa capacity growth between 2008-13 based on Tabreed's proposed projects reaching 848kTR of cooling capacity by 2013. Since Tabreed's contract structure effectively minimises the input cost risk providing relatively fixed profit margins, the driver for profitability is through capacity expansion. Hence, we do not expect a repeat of the company's high profit margins over the last few years, as shown below.

²⁷ Tabreed expects 40kTR from June 2009 to ramp up to 62kTR from September 2009

Underperformance overdone

Tabreed's share price has fallen by 85% in absolute terms and 40% relative to the UAE markets since February 2008. This is similar to the absolute fall in the UAE real estate index over the same period. The company does have exposure to UAE real estate, although many of its projects are linked to more secure government entities such as Dubai Metro and military projects, which are financially supported. This is acknowledged by Tabreed's relative outperformance to the Abu Dhabi real estate sector recently, as shown in the chart below, a trend we expect to continue as the UAE real estate continues to deteriorate. While we still see risks with Tabreed's restructuring, we believe the current valuation represents a good entry point or buying opportunity to increase long-term holdings.

Tabreed's share price performance relative to the Abu Dhabi real estate sector



Source: Datastream

District cooling process

District cooling is the production and distribution of chilled water via an underground pipeline to buildings within a district. Specially designed units in each building then use the cooled water to cool air passing through the building's air conditioning system. District cooling energy can also be delivered for the cooling of industrial processes or manufacturing and storage facilities in the food industry. District cooling can be run on electricity or gas, and can use either regular water or seawater. District cooling is measured in refrigeration ton (TR), which is the unit measure for the amount of heat removed.

District cooling systems can replace any type of air conditioning system, but primarily compete with air-cooled reciprocating chiller systems serving large buildings that consume large amounts of electricity. Buildings using district cooling gain a number of benefits:

- Improves efficiency and reduces costs. Each ton of cooling consumes 1 kwh of electricity relative to 1.7 kwh for normal air conditioning;
- Environmentally friendly as warmer water is returned to be re-chilled;
- Reduces construction costs by 10% owing to economies of scale from greater unit sizes;
- Lowers maintenance costs as only a central unit may need to be maintained rather than many smaller units; and
- Limits noise pollution and is more aesthetic.

Source: Company data

Earnings and cost assumptions

The main driver for our forecast is Tabreed's capacity expansion. We have assumed Tabreed's installed capacity was 342k TR (and 308k TR operated capacity) at end 2008 and based our outlook on a project-by-project based on the following:

- We have assumed some contribution from Dubai Metro in 2009 (36k TR) with a ramp-up in 2010 and full contribution from Marina Mall (10k TR) and ramp-up of existing projects (30k TR).
- For 2010 onwards, we include a gradual ramp-up of Yas Island and Raha beach, although only include an incremental 50k TR each for these projects.

We model revenue per TR based on a discount to 2008, which gradually recovers to the same level observed in 2007 (AED1.91 per TR), while we keep the costs per TR at AED 1.5 per TR the same level as 2008. We assume capex at AED 1bn in 2009, AED 0.75bn in 2010, in line with company guidance and AED 50m from 2011 onwards since we do not forecast any new projects relative to those previously announced by Tabreed.

Capacity outlook and revenue/cost assumptions

	2009E	2010E	2011E	2012E	2013E
Refrigeration installed capacity	426	548	648	748	848
<i>growth, y-o-y %</i>	22%	29%	18%	15%	13%
Revenue, AED per TR	1.88	1.89	1.90	1.91	1.92
Cost AED per TR	1.5	1.5	1.5	1.5	1.5

Source: Nomura estimates

Accounting under IFRS

Tabreed accounts are reported under International Accounting Standards, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. Tabreed does provide segmental financial information, which we have used in our analysis. However, the restructuring of the company may see some segments being divested. Below the line, Tabreed's net financing items relate to its Sukuk issues. We have assumed Tabreed's convertible Sukuk will not be converted and treat as debt. Tabreed does not consolidate its JVs.

All tables on page 119 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)							
AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Operating revenues	549	735	801	1036	1231	1429	1628
Operating expenses	(385)	(517)	(639)	(822)	(972)	(1,122)	(1,272)
EBITDA	165	217	162	214	259	307	356
Depreciation	(44)	(44)	(11)	(12)	(13)	(15)	(16)
Amortisation	0	0	0	0	0	0	0
Profit / (loss) from operation	121	174	151	202	246	292	340
Exceptional items	0	0	0	0	0	0	0
Financial income + Change in fair value of investme	19	(4)	(4)	(4)	(4)	(4)	(4)
Financial expenses	(69)	(81)	(145)	(182)	(209)	(207)	(202)
Financial items	18	4	35	35	35	35	35
Associate Income	12	17	20	24	29	35	42
Impact from FX hedging instruments	0	0	0	0	0	0	0
Profit / (loss) before income tax	101	110	57	75	97	152	211
Tax expense	0	0	0	0	0	0	0
Profit / (loss) after tax	101	110	57	75	97	152	211
Discontinued ops./gains on sale	0	0	0	0	0	0	0
Net income reported	101	110	57	75	97	152	211
% change	(29%)	(33%)	(20%)	(20%)	(20%)	(20%)	(20%)
Minority interests	(29)	(37)	(12)	(15)	(20)	(31)	(43)
Adjusted Net income	72	73	46	59	77	121	169
growth, %	14%	1%	(37%)	30%	30%	56%	40%
EPS	0.06	0.06	0.04	0.05	0.07	0.11	0.15
growth, %	14%	1%	(37%)	30%	30%	56%	40%
DPS	0.07	0.07	0.00	0.00	0.00	0.00	0.00
Payout ratio (%)	0%	35%	0%	0%	0%	0%	0%
Summary balance sheet							
AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	1,242	1,211	1,268	1,342	1,440	1,591	1,802
Minorities	133	162	162	162	162	162	162
Short term debt	128	913	913	913	913	913	913
Long term debt	2,193	3,413	4,345	5,009	4,949	4,833	4,655
Cash	(430)	(697)	(697)	(697)	(697)	(697)	(697)
Net debt	1,890	3,629	4,562	5,225	5,166	5,049	4,872
Capital employed from debt	3,265	5,002	5,991	6,729	6,767	6,802	6,836
Balance sheet ratios							
Net debt to equity, %	152%	300%	360%	389%	359%	317%	270%
Net debt capital, %	51%	64%	68%	70%	69%	67%	65%
RoACE, %	3%	3%	1%	1%	1%	2%	3%
RoAE, %	6%	6%	4%	5%	6%	8%	10%
Summary cash flow							
AED, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Adjusted net income	72	73	46	59	77	121	169
DD&A	44	44	11	12	13	15	16
Minorities	29	37	12	15	20	31	43
Deferred tax	0	0	0	0	0	0	0
Post tax interest charge on debt	69	81	145	182	209	207	202
Cash EBIDA	214	234	213	269	319	373	429
less: post tax interest charge	(69)	(81)	(145)	(182)	(209)	(207)	(202)
Adjusted movement in provisions	(17)	0	0	0	0	0	0
Working capital movement	172	0	0	0	0	0	0
Cash flow from operations	300	153	68	87	110	166	228
Capex	(1072)	(1500)	(1000)	(750)	(50)	(50)	(50)
Capex Growth	18%	40%	(33%)	(25%)	(93%)	0%	0%
Dividends paid	(84)	(84)	0	0	0	0	0
Net cash flow from operations	(856)	(1430)	(932)	(664)	59	116	178
Non recurring items							
Acquisitions	0	0	0	0	0	0	0
Divestments	502	0	0	0	0	0	0
Other movements	(125)	0	0	0	0	0	0
Net cash surplus (deficit)	(479)	(1430)	(932)	(664)	59	116	178

Increase in finance expense relates to Sukuk issues

Lower earnings in 2009 owing to projects back-end loaded in 2009 and higher finance expense

We do not expect Tabreed to pay a dividend (cash or stock) in the medium-term

We include convertible Sukuk as debt

Tabreed's high gearing has led to restructuring for the group

Tabreed's focus is to improve equity returns and we do not see any improvement until 2011

We expect capex at AED1.8bn in 2009-2010 as per company guidance

We do not include any asset sales from restructuring

Qatar Electricity & Water – Value in Qatar’s industrialisation

Stock rating	BUY
Price, 19 Feb	QR 78.8
Price target	QR 125
Upside potential, %	59
Market cap, QRbn	8
Market cap, \$bn	2

Valuation	2009F	2010F
EPS	8.8	10.4
P/E	9.0	7.6
P/B	1.7	1.5
Div. Yield, %	6.4	7.2
EV/EBITDA, x	9.5	7.9

Performance, %	QTD	YTD
Absolute, QR	(30%)	(30%)
vs market	(1%)	(1%)

Asset mix by business, %	
E&P	0
R&M	0
Chems	0
Power	100
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	100
Asia	0
Total	100

Revenue by business, %	
Power	60
Water	40
Total	100

Catalyst dates	
AGM	Mar 09
Strategy update	July 09

Qatar Electricity and Water Company (QEWC) primarily operates integrated plants for the generation of electricity and desalination of water in Qatar, and is the largest power generation and desalination company in the country accounting for ~70% of generation and desalination capacity, respectively.

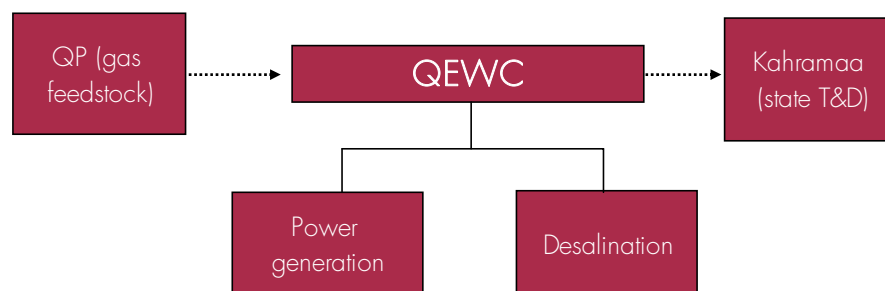
Brief history

1992	Established as a new company
1998	Listed on Doha Securities Market
1998	Purchased power plant at Ras Abu Fontas 'B' (RAF B) from the government
2001	Entered into a 'Power Purchase Agreement' with Kahramaa for supply of power from Ras Abu Fontas 'B1' station
2003	Acquired Ras Abu Fontas 'A' (RAF A), Al Wajbah, Al Saliyah and Doha South Super from Kahramaa for QR600m
2003	Acquired Qatar Petroleum's Dukhan desalination Plant for QR71.66m
2004	Entered into a JV with International Power and Chubu Electric Power for the Ras Laffan B IWPP for \$900m
2005	Entered into a 'Power and Water Purchase Agreement' with Kahramaa for the supply of power and water from Ras Abu Fontas (RAF B 2) station
2006	Entered into a JV with Marubeni Corporation and Qatar Petroleum for the Mesaieed power project
2007	Incorporated a jointly controlled entity - Mesaieed Power for executing Mesaieed power project for \$2.3bn
2007	Entered into an agreement with Kahramaa for supply of water from RAF A1
2008	Start-up of Ras Laffan B Power & Water (QPower)

Source: Company data, Nomura research

QEWC's businesses are split into water desalination and power generation accounting for 40% and 60% revenues, respectively. In the medium term, QEWC's strategy is to increase its power generation capacity to 5,453MW and desalination capacity 251MIGD by 2012 to provide utilities for the country's industrialisation.

Corporate structure schematic and supply chain

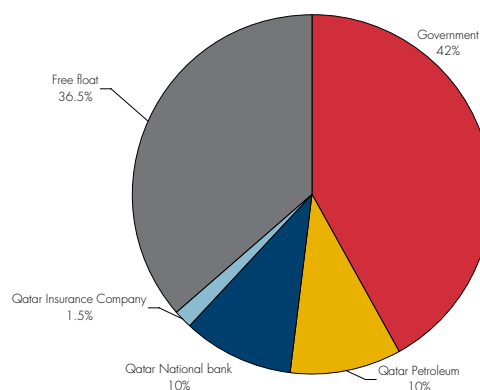


Source: Company data, Only the main functions are shown for simplicity together with supply chain for QEWC

Shareholder structure

QEWC's free float is 36.5%, although there is a foreign ownership restriction of 25% for non-GCC investors with the government owning 42% and the remainder held by strategic investors.²⁸

Shareholders as at end 2008



Source: Company data, Nomura research

We have not included details of QEWC management on request from the company.

²⁸ The Qatari government's purpose has been to ensure there are sufficient utilities to promote diversification and industrialisation of the country. As such we do not believe the government will sell down its current stake.

DCF valuation – Upside potential from capacity expansion

We initiate with a Buy rating and a price target of QR 125/share

Our valuation approach for QEWC is a DCF-based methodology. We believe this is more appropriate valuation compared to our NAV approach since QEWC's power and desalination businesses are essentially integrated, ie, water desalination is essentially a by-product of the electricity generation process and the company provides a direct link between QP and Kahramaa. We have also included QEWC's share of its investments within our valuation. A detailed explanation of our valuation methodology is highlighted in Appendix 2 and is consistent with our valuation methodology for our European Utility company valuation. Using this approach, we derive a rounded share price target of QR 125/share, which indicates to us that QEWC's shares provide 59% potential upside.

DCF valuation for QEWC

		2009E	2010E	2011E	2012E	2013E	2014E
EBIT	QRm	1,004	1,245	1,567	1,798	1,870	1,944
Tax Rate	QRm	0	0	0	0	0	0
NOPAT	QRm	1,004	1,245	1,567	1,798	1,870	1,944
Depreciation	QRm	460	515	576	646	723	810
Gross Cash Flow	QRm	1,463	1,760	2,144	2,443	2,593	2,754
Capex	QRm	(3,000)	(3,000)	(3,000)	(295)	(308)	(322)
Working capital	QRm	(684)	(70)	(94)	(67)	(19)	(18)
Free cash flow	QRm	(2,220)	(1,310)	(950)	2,081	2,266	2,414
Discount rate	%	10.5%					
Terminal growth rate	%	3.0%					
Terminal Value	QRm	18,082					
NPV 09-13	QRm	307					
Total Value	QRm	18,406					
+ Cash	QRm	1,615					
+ Avail for Sale instruments	QRm	232					
+Investments	QRm	205					
- Debt	QRm	(8,290)					
Equity Value	QRm	12,151					
Number of shares	m shares	100					
Share Price	QRm	122					

Source: Nomura estimates

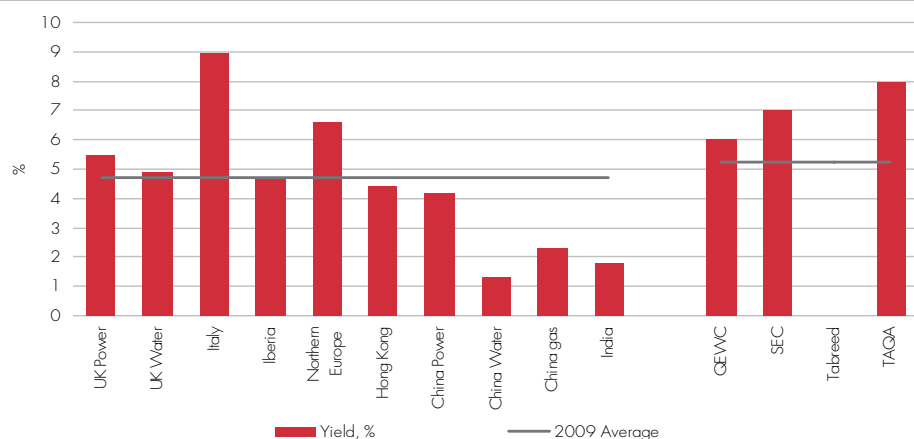
Valuation multiples reflect growth potential

In addition to our DCF valuation, we have compared QEWC with both European and Asian utility companies on a variety of valuation multiples. While there are a range of tariff and regulatory regimes within the power and water markets these companies operate within, we believe this provides a valuation benchmark to QEWC on a global basis. However, we have included selected companies operating within partly liberalised markets in the GCC. Our conclusions:

- QEWC shares have fallen by almost 30% on an absolute basis, although ~1% relative to the Doha market since the start of 2009, which may reflect the movement of funds into stable cash flow generating companies such as utilities. The tariff system between QEWC and Kahramaa means that it is appropriate to compare QEWC cash flow multiples relative with SEC since there is certainty around the tariff system unlike in Saudi Arabia. On this measure, QEWC trades at 9.5x EV:EBITDA 2009F, a 13% premium to European and Asian utilities, although this falls to 7.9x in 2010 owing capacity expansion projects commencing.
- On a P/B 09F, QEWC trades at 1.7x relative to 1.6x and 1.3x average for European and emerging Asia utilities, and SEC on 0.8x. QEWC's lower equity in 2008 arises from the company taking marks to market for its interest rate hedge transactions (floating to fixed) mainly from its JVs. Hence, when comparing multiples on this basis we have not included this change in fair value liability. Since the company does not intend to cancel its swap agreement, the liability will not have a cash flow or earnings effect.
- EPS CAGR 2009-13F is 16% for QEWC. This reflects the higher capacity growth contribution from the company's projects such as Maesaieed and Ras Laffan as observed from the increase in the company's RoE from 20% in 2009 to 22% in 2013.
- QEWC has an attractive dividend yield at 6%, as shown below. The company does not have a specific dividend payout policy, instead it ensures stable dividend growth in line with inflation. We forecast QR5.0/sh in 2009.

QEWC dividend yield

QEWC has an attractive dividend yield relative to other utility sectors



Source: Nomura estimates. Data based on average from Nomura's European and Asian utilities teams.

Key positives

- **Limited competition from IPP/IWPPs:** QEWC market share for power and water production is ~70%. Recently there has been the introduction of a series of private projects partly linked to the country's industrialisation. However, while this new competition would seem a threat to QEWCs market share, it is implicit (although not required by law) that all new entrants form JVs with QEWC, otherwise it is unlikely independent projects will obtain a licence to supply Kahramaa.
- **Adequate funding:** QEWC has funded its capacity expansion through a series of loans and has no outstanding funding requirements for announced projects.²⁹ The company will service bridge loans from internal cash flow or using existing bank facilities.
- **Attractive tariff structure:** QEWC sells its power and water under a 100% take-or-pay contract at a fixed margin with Kahramaa, whereby the company is able to pass on any increase in feedstock costs to the customer. The tariff is also inflation linked, which is a benefit to the company considering Qatari inflation has been ~14% over the last two years.
- **Low valuation:** QEWC trades at 9.5x EV:EBITDA in 2009F, a premium to Saudi Electric on 5.4x EV:EBITDA, its closest Middle East peer mainly owing to SEC's high depreciation charge. Relative to the European and Asian utilities companies' average on 7.9x and 8.9x, respectively, QWEC trades at a premium. We feel this does not fully reflect the growth prospects and advantaged feedstock and tariff position QEWC has relative to this peer group.
- **High dividend yield:** QEWC does not have a dividend policy, but the company suggests the dividend will increase by inflation each year. With the dividend yield at 6% similar to many other utility companies in liberalised markets, we see QEWC as a good proxy to investing in Qatar with upside from higher capacity and earnings growth.

²⁹ The company has relied on its government holding and tariff agreements which provide visibility on cash flows for the lender.

Key negatives

- **Lower demand:** We estimate power demand growth in Qatar at 9% in the medium term. There are risks that demand may slow down, although this will not affect QEWC's existing offtake agreements. However, it may limit further capacity expansion by the company as Kahramaa is unlikely to enter into new purchase agreements if the outlook for demand slows.
- **Operational delivery:** QEWC operates many of its facilities to ensure sufficient and reliable power and water supply. However, any operational problems where output cannot be delivered may result in compensation to Kahramaa, although the company is insured and any major operational disruption may invoke force majeure clauses.
- **Contractor risks:** There are three major projects coming onstream for QEWC (Mesaieed, Ras Laffan C and RAF-A1 Water project), which account for essentially all of the company's power generation and desalination capacity growth by 2013. With some construction projects being delayed QEWC's projects may not startup as scheduled. However, the company does have protection for reimbursement for delays in its EPC contracts.³⁰
- **Customer concentration:** Kahramaa, Qatar's state-owned transmission and distribution company is QEWC's only customer that has an off-take agreement for power and water volumes. There have been disputes between QEWC and Kahramaa, which are mainly related differences in contract interpretation or charges for late delivery.

³⁰ There have been timing issues for QEWC compensation whereby a delay in RAF B2 in 2007 meant the company was required to reimburse Kahramaa QR110m, before receiving payment from the contractor.

Low-cost leverage to Middle East power

QEWC is Qatar's partly privatised state-power and water company with ~3GW of power generation capacity and ~150MIGD desalination. The company's operations are protected on both supply of gas feedstock from Qatar Petroleum, the state-run oil company and consumption from Kahramaa, the state-run transmission and distribution company. Since QEWC's is able to pass-through any increase in costs and receives a specific margin from Kahramaa, so earnings growth partly relies on the ability for the company to expand its capacity in the medium term.

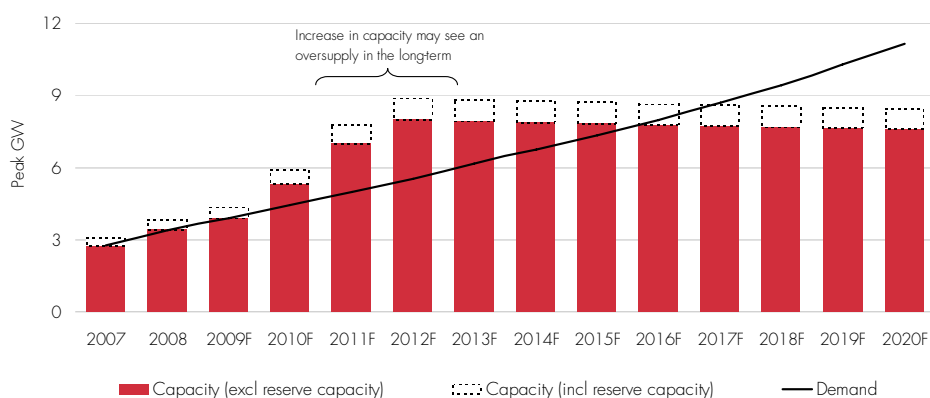
High capacity growth from industrialisation

Qatar's industrialisation partly has been a catalyst to the country's 10% pa historical average power demand growth as well as the affluence in society

We do not believe that Qatar's expansion plans for its energy sector will be significantly affected by the recent fall in oil and gas prices. The Qatari Deputy Premier and Ministry of Energy has already said that "2009-2010 [budget to be published in April 2009] will be the largest in Qatar's history because our country is committed to the implementation of infrastructure projects", which will be based on \$35/bl. The country is expected to spend up to \$119bn on infrastructure and industry projects in the medium-term (MEED 8 February 2009), and we believe core developments are unlikely to be stopped.³¹ Since QEWC is the main provider of power and desalination within the country, growth in utility intensive industry and infrastructure, as a consequence of Qatar's investment programme, is an important driver for QEWC capacity expansion plans and hence earnings in the medium term. Qatar's power demand growth has averaged 10% pa between 1999-2008, which has been driven by the country's industrialisation, population growth (6% pa between 1999 and 2008) and overall affluence in society demanding more energy-intensive consumer products. The chart below shows the country's power supply/demand outlook.

Qatar's power supply/demand outlook

In the near-term, we see a tight power market in Qatar during the summer months, while QEWC's new capacity will be able to manage any long term shortfall



Source: Nomura estimates

³¹ Mohammad Bin Al Sada, Qatar's Minister of State Energy and Industrial Affairs said "The global economic crisis is still a passing cloud for Persian Gulf country's long-term strategic plans...Qatar's economy is expected to grow 10% this year." according to local newspaper reports

We expect QEWC's power and desalination capacity growth at 19% pa and 11% pa over the 2008-13 period

QEWC has installed power generation capacity of ~3.0GW in 2008, which is expected to remain flat thereafter; however, the company's strategy has relied on the formation of JVs with private companies, which will produce an additional 5755MW (2592MW net to QEWC) according to the company. The company has installed water desalination capacity of ~135MIGD in 2008, which is expected to increase to 180MIGD by 2011 owing to the start-up of RAF A1 which will add 45 MIGD. QEWC's JVs will also add a further 123 MIGD (61 MIGD net to QEWC) to the start-up of RAS Girtas, which will add 63 MIGD. Overall, we have taken a conservative view on the ramp-up of this new capacity, and we forecast QEWC's capacity growth 2008-13F at 19% pa and 11% pa for power and desalination. A list of QEWC's desalination and power projects is highlighted below. The increase in generation and desalination capacity reflects the development of Qatar's industrial and manufacturing base, which the government continues to allocate spending to with the aim to diversify the country's economy.

QEWC's power and water projects

Project	Start-up*	Capacity		Interest	Other stakeholders	Cost	Comments
		MW	MIGD				
Ras Laffan C plant (Ras Girtas Power Company)	2010	1,600	20	45%	Qatar Petroleum (QP)15%	\$3.9bn for phase I & II	First stage for the largest power and water plant in Qatar
Ras Laffan C plant (Ras Girtas Power Company)	April 2011	1,130	43	45%	GDF Suez International, Mitsui, Chubu and Yonden-40%	-	Second phase startup.
Mesaieed Industrial City	2009	1,000		40%	QP-20%	\$2.3bn for all phases	The work of 2,000 MW Mesaieed A power station is in progress.
Mesaieed Industrial City	2010	650			Japan's Marubeni-40%	-	
Mesaieed Industrial City	2011	350				-	
Ras Laffan Plant (B) (Q Power)	2008	1,025	60	55%	International Power-40%, Japan's Chubu Electric Power Company- 5%.	\$900m	Operational
Ras Abu Fontas station expansion Project (RAF B2)	2008	567	30	100%	-	~\$600m	Operational
RAF-A1 Water Project	2010		45	100%	-	\$577m	Operational

Source: Company data. *Announced start-up by company

Advantaged tariff position – upside at higher-margin growth

QEWC is protected on both supply and demand side of the value chain since its generation tariffs allow the company to pass-through any increase in feedstock costs and its power/water sales are at a specific margin from Kahramaa

Qatar's power and water sector essentially use natural gas feedstock owing to the abundance of the hydrocarbon in the country owing to the North Field. Qatar Petroleum (QP) has an 11% stake in QEWC, which relies on regular and low cost of gas (\$1-2/mbtu) to supply its plants and provide new investment opportunities from QP's downstream and petrochemicals projects. As a result, QEWC production cost for power is one of the most competitive in the world below \$0.05/kwh relative to \$0.1/kwh in Europe (CCGT) for example. Likewise, QEWC's relationship with Kahramaa, a government entity, ensures power and water output is sold under a specified margin agreement, which allows QEWC to recoup its capacity investment. This means QEWC is

essentially protected on both the supply and demand side of the value chain. QEWC's tariff structure means the driver for earnings is the ability for the company to expand power and desalination capacity either organically or via joint ventures. We model this tariff structure on the basis of the company's operating profit margin per MW of generation capacity (based on power capacity). In 2008, we estimate the operating profit margin per MW to reflect QEWC's specific margin it receives from Kahramaa was QR0.28/MW. We assume a medium-term growth rate in this margin at 4.0% pa is based on a conservative view on long-term demand growth in the country since QEWC will not develop any further capacity unless there is demand from Kahramaa. In addition, the company has been able to increase its margin per MW on average by 22% pa for the last three years. We have included a sensitivity for the company's medium-term margin growth and discount rate as detailed in the table below. This shows that even at lower-margin growth, there is still upside potential relative to our price target of QR 125/sh. Only in an extreme case whereby there is no margin growth, which we see as unlikely since QEWC would not have invested in new capacity without the development providing incremental value, would we see the company trading around fair value.

Sensitivity with margin growth and discount rate for QEWC's price target, QR/sh

We see significant upside to our price target for QEWC at higher-margin growth in the medium term

Discount rate	Medium-term margin growth % pa								
	0%	1%	2%	3%	4%	5%	6%	7%	8%
8.0%	184	201	219	238	258	279	301	324	349
8.5%	155	170	186	203	221	240	260	281	303
9.0%	130	144	158	174	190	207	225	244	264
9.5%	109	122	135	149	164	180	196	214	232
10.0%	92	103	115	128	142	156	172	188	204
10.5%	76	87	98	110	123	136	150	165	181
11.0%	63	73	84	95	106	119	132	145	160
11.5%	51	61	71	81	92	103	115	128	142
12.0%	41	50	59	69	79	90	101	113	125
12.5%	32	40	49	58	67	78	88	99	111
13.0%	24	32	40	48	57	67	77	87	98
13.5%	17	24	32	40	48	57	66	76	87

Source: Nomura estimates

Earnings and cost assumptions

For QEWC's power and water projects, we have conducted a project-by-project analysis and highlight our assumptions below. We assume a power load factor of 56% based on the historical trend.

- We have assumed Mesaieed Industrial City project starts up in 2010 at 1650MW rather than 2009. Ras Laffan C plant, we assume start-up in 2011 at 1600MW, although the company suggests operations will start up in 2010. We have used a similar profile for desalination.

We assume capex to increase on average by ~QR 3bn pa to 2011 based on the projects announced then ~QR300m from 2012 onwards. We increase DD&A by 12% pa in line with inflation. Our assumption of generation and desalination capacity as well as operating profit margin per MW drive our earnings forecast. We have assumed QEWC's operating profit margin grows at 4.0% pa from QR0.28/MW in 2008 and apportion the costs based on the historical split and the revenues based on a per unit basis. The cost of gas consumed is the main cost for the company and typically equates to 44% of the overall costs.

QEWC capacity and revenue assumptions

All capacity data net QEWC	2009E	2010E	2011E	2012E	2013E
Power generation capacity, MW	3,425	4,085	4,945	5,453	5,453
growth y-o-y, %	14	19	21	10	0
Water capacity, MIGD	178	223	232	251	251
growth y-o-y, %	15	25	4	8	0
EBIT margin, QR/MW	0.29	0.30	0.32	0.33	0.34
growth y-o-y, %	4.0	4.0	4.0	4.0	4.0

Source: Company data, Nomura estimates

Accounting under IFRS

QEWC accounts are reported under International Accounting Standards, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. QEWC does not provide segmental financial information for power generation and desalination.

Below the line, QEWC main item is the finance charge and net other income relates to the share of associates such as Ras Laffan A. We assume the company will account for its new joint ventures on a proportional consolidation method and associates on the equity method.

All tables on page 130 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (IFRS)

Revenues from JVs increase significantly between 2009 to 2012 owing to QEWC's stake in Mesaieed and Ras Laffan C

QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Operating Revenue							
Revenue from sale of electricity	1150	1361	1281	1281	1281	1281	1281
Revenue from sale of water	688	788	766	766	766	766	766
Revenue from sale of electricity (Joint Ventures)	0	0	270	586	999	1242	1242
Revenue from sale of water (Joint Ventures)	0	0	108	90	107	137	137
Lease income from plant leases	89	124	124	124	124	124	124
Other Operating Income	11	0	0	0	0	0	0
Total Operating Revenue	1938	2273	2549	2848	3277	3550	3550
Operating expenses							
Depreciation of PPE	(366)	(371)	(460)	(515)	(576)	(646)	(723)
Cost of Gas consumed	(552)	(655)	(680)	(705)	(752)	(771)	(739)
Employee Cost	(171)	(219)	(210)	(217)	(232)	(238)	(228)
Stores and spares consumed	(48)	(73)	(59)	(61)	(65)	(67)	(64)
General & Administration expenses	(63)	(95)	(97)	(100)	(107)	(110)	(105)
Other Expenses	(59)	(102)	(40)	(4)	23	79	179
Total Operating Expense	(1259)	(1515)	(1545)	(1603)	(1709)	(1752)	(1681)

Interest costs increase since QEWC's expansions are mainly financed with debt

Operating Income	679	758	1004	1245	1567	1798	1870
Net other Income	96	114	69	69	69	69	69
Retirement of Assets	(2)	(2)	0	0	0	0	0
Deferred income	26	26	7	7	7	7	7
Liquidated damages to Kahramaa	(110)	(11)	0	0	0	0	0
Finance Costs	(76)	(138)	(200)	(286)	(349)	(404)	(373)
Adjusted Net income	614	757	880	1035	1295	1470	1573
% change	(20%)	23%	16%	18%	25%	13%	7%

QEWC do not have a specific payout target instead increase the dividend by inflation each year

EPS	6.1	7.6	8.8	10.4	12.9	14.7	15.7
% change	(20%)	23%	16%	18%	25%	13%	7%
DPS	4.0	4.5	5.0	5.6	6.3	7.1	7.9
Payout	65%	59%	57%	55%	49%	48%	50%
% change	14%	13%	12%	12%	12%	12%	12%

Summary balance sheet

QEWC's gearing guidance is 40% and 80%. We expect QEWC to reduce its gearing gradually to 2013

QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	3,709	1,308	1,603	2,016	2,627	3,346	4,098
Minorities	0	0	0	0	0	0	0
Short term debt	24	805	795	795	795	795	790
Long term debt	4,502	7,484	10,349	12,441	14,294	13,240	12,045
Cash	(654)	(1,615)	(1,615)	(1,615)	(1,615)	(1,615)	(1,615)
Net debt	3,872	6,675	9,530	11,622	13,475	12,420	11,220
Capital employed from debt	7,581	7,983	11,133	13,637	16,102	15,766	15,318
Balance sheet ratios							
Net debt to equity, %	104%	510%	594%	577%	513%	371%	274%
Net debt to capital, %	51%	84%	86%	85%	84%	79%	73%
RoACE, %	10%	11%	11%	11%	11%	12%	13%
RoAE (ex Cum Change), %	16%	19%	20%	21%	23%	23%	22%

Higher returns than SEC partly owing to tariff structure

Summary cash flow

D,D&A gradually increases owing to QEWC's capacity expansion

QR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Adjusted net income	614	757	880	1,035	1,295	1,470	1,573
DD&A	366	371	460	515	576	646	723
Minorities	0	0	0	0	0	0	0
Deferred tax	0	0	0	0	0	0	0
Post tax interest charge on debt	76	138	200	286	349	404	373
Cash EBIDA	1056	1266	1540	1836	2220	2520	2669
Less Post tax interest charge on debt	(76)	(138)	(200)	(286)	(349)	(404)	(373)
Other non-cash items	50	109	197	284	348	404	371
Changes in working capital	(331)	354	(684)	(70)	(94)	(67)	(19)
Cash flow from operations	699	1,591	853	1,764	2,125	2,452	2,649
Capex	(1,747)	(3,864)	(3,000)	(3,000)	(3,000)	(295)	(308)
Capex Growth	65%	121%	(22%)	0%	0%	(90%)	5%
Dividend Paid	(353)	(400)	(453)	(504)	(564)	(632)	(708)
Dividend received from associate	25	27	30	30	30	30	30
Net Cash Flow from operations	(1,401)	(2,673)	(2,599)	(1,740)	(1,439)	1,525	1,633

We expect QEWC net cash position to improve post start-up of expansion projects

Non-recurring items							
Acquisitions	(2)	(8)	(8)	(8)	(8)	(8)	(8)
Divestments	0	0	0	0	0	0	0
Surplus (deficit) from our line items	(2,805)	(5,354)	(5,206)	(3,488)	(2,886)	3,041	3,257
Other movements	2,960	6,315	0	0	0	0	0
Net cash surplus (deficit)	155	961	(5206)	(3488)	(2886)	3041	3257

Saudi Electric – Benefits to unbundling

Stock rating	BUY
Price, 18 Feb	SAR 9.5
Price target	SAR 14
Upside potential, %	48
Market cap, SARbn	39
Market cap, \$bn	10

Valuation	2009F	2010F
EPS	0.3	0.4
P/E	28.5	24.5
P/B	0.8	0.8
Div. Yield, %	7.4	7.4
EV/EBIDA, x	5.4	4.8

Performance, %	QTD	YTD
Absolute, SAR	2	2
vs. market	2	2

Asset mix by business, %	
E&P	0
R&M	0
Chems	0
Power	100
Total	100

Sales mix by region, %	
US	0
Europe	0
GCC	100
Asia	0
Total	100

Earnings mix by business, %	
Power	100
Total	100

Catalyst dates	
Approval of new tariffs	1H09

Saudi Electric (SEC) is the power monopoly in Saudi Arabia with 86% market share. It is one of the largest electricity providers in the Middle East and its largest provider of district cooling services. The company's activities include generation, transmission and distribution as well as investment in IPPs and IWPPs. The Electricity and Co-generation Regulatory Authority (ECRA) in Saudi Arabia has proposed a series of steps to unbundle and liberalise, SEC initially by 2010. The company's free float is 19%, although there is a 100% foreign ownership restriction to non-GCC investors.

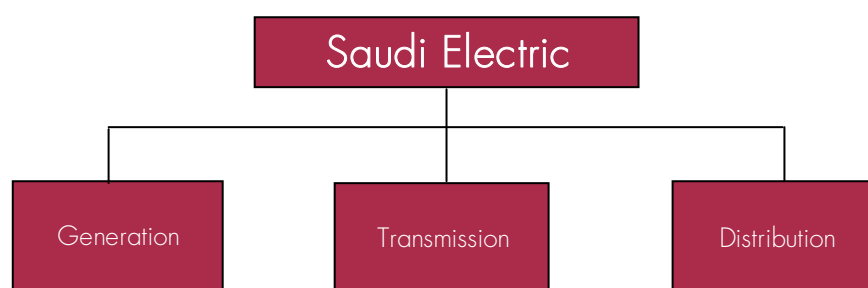
Brief history

1998	Reorganisation of electricity sector established under Royal Decree M/16 by merging 10 former utility companies
2001	Saudi Electricity Regulatory Agency (SERA) established under Resolution No. 169 dated Sha'aban 11, 1419H
2005	Electricity Law established under Royal decree No. M/56
2007	Unbundling and restructuring of SEC proposed by ECRA
2008	SEC Board of Directors approves ECRA's plan to unbundle SEC
2008	New tariff proposed for 2009 by ECRA to the Council of Ministers

Source: Company data, Nomura research

SEC's main function is to generate electricity to be sold to residential, commercial and industrial consumers via the company's Transmission and Distribution businesses within Saudi Arabia. In the medium term, SEC's strategy is to adhere to the restructuring proposals from ECRA gradually to liberalise the country's power sector. The diagram below shows a brief outline of SEC's structure. Since SEC does not provide a segmental split by activity, we assume all segments are integrated.

Corporate structure schematic

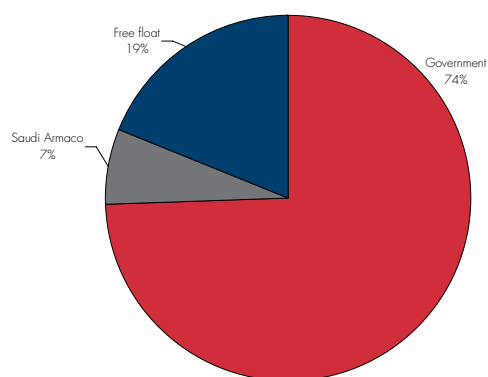


Source: Company data, Only the main functions are shown for simplicity

Shareholder structure

SEC's free float is 19%, although there is a foreign ownership restriction of 100% for non-GCC investors with the remainder held directly and indirectly by the government.

Shareholders as at end 2008



Source: Company data, Nomura research

Key senior management

Ali Bin Saleh Al-Barrak, CEO. Mr. Al-Barrak joined SEC as a Senior Engineer in 1980 and has held various positions in SEC including Director General, Al-Qassim Electricity Area; Acting Director General, Central Region Branch; member of the executive committee and EVP. Prior to joining SEC, he worked in The Research Centre and Industrial Development and in consulting services for Al-Saudiyyah. He is a Saudi national and an electrical engineer.

Yousif Bin Sulaiman Balghunaim, Executive VP – Generation. He joined SEC as Assistant Chief Engineer in 1977 and has held various positions in SEC including: Manager, Jeddah Distribution Network; Manager, Rabigh Expansion Project and Deputy Director General for Operations Affairs. He is a Saudi national and an electrical engineer.

Saleh Bin Mohammed Al-Onaizan, Executive Vice President – Transmission. He joined SEC as an Al-Rus Services Division Manager in 1981 and has held various positions in SEC including: VP Engineering and Projects Affairs and SVP Central Operating Area. Prior to joining SEC, he worked as Projects Manager at Saudi Industrial Development Fund. He is a Saudi national and an electrical engineer.

Sa'ad Bin Hamad Al-Mansour, Executive VP – Distribution & Customer Services. He joined SEC as a Manager, Customer Affairs, Alhasa Operating Area in 1985 and has held various positions in SEC including: Operating Area VP; General Manager for the Eastern Region and Senior Vice President Eastern Region. Before joining SEC, he has worked as an Assistant Manager, Municipality Affairs; as a Supervisor at Al-Oyoon Municipality and at the Engineering Consulting Office. He is a Saudi national and a civil engineer.

Mr. Ali Bin Sulaiman Al-Ayed, Executive VP – Finance. He joined SEC as Executive VP and Chief Finance Officer in 2006. Before joining SEC Mr. Al-Ayed was an Internal Auditor for SABIC from 1980 to 1984 and has held various other finance positions. He is a Saudi national and an accountant.

DCF valuation – Upside on tariff growth

We initiate with a Buy rating and a price target of SAR 14/share

Our valuation approach for SEC is a DCF-based valuation methodology. We believe this is more appropriate valuation compared with our NAV approach since SEC's power and desalination businesses is integrated between generation, transmission and distribution. A detailed explanation of our valuation methodology is highlighted in Appendix 2 and is consistent with our valuation methodology for our European utility company valuation. Using this approach, we derive a share price target of SAR 14/share, which indicates to us that SEC's shares provide 48% potential upside.

DCF valuation for SEC

		2009E	2010E	2011E	2012E	2013E	2014E
EBIT	SARm	1,380	1,605	2,098	2,642	3,243	3,905
Tax Rate	SARm	-	-	-	-	-	-
NOPAT	SARm	1,380	1,605	2,098	2,642	3,243	3,905
Depreciation	SARm	7,674	8,560	9,446	10,332	10,452	10,572
Gross Cash Flow	SARm	9,053	10,165	11,544	12,974	13,695	14,477
Capex	SARm	(22,154)	(22,154)	(22,154)	(22,154)	(3,000)	(3,000)
Working capital	SARm	614	1,665	1,283	1,329	1,377	1,427
Free cash flow	SARm	(12,487)	(10,324)	(9,328)	(7,850)	12,073	12,903
Discount rate	%	11.0%					
Terminal growth rate	%	2.5%					
Terminal Value	SARm	83,470					
NPV 2009-2014	SARm	(17,556)					
Total Value	SARm	65,914					
+ Cash	SARm	800					
+ Investments	SARm	2,160					
- Debt	SARm	(10,204)					
Equity Value	SARm	58,670					
Number of shares	m shares	4,167					
Share Price	SARm	14.1					

Source: Nomura estimates

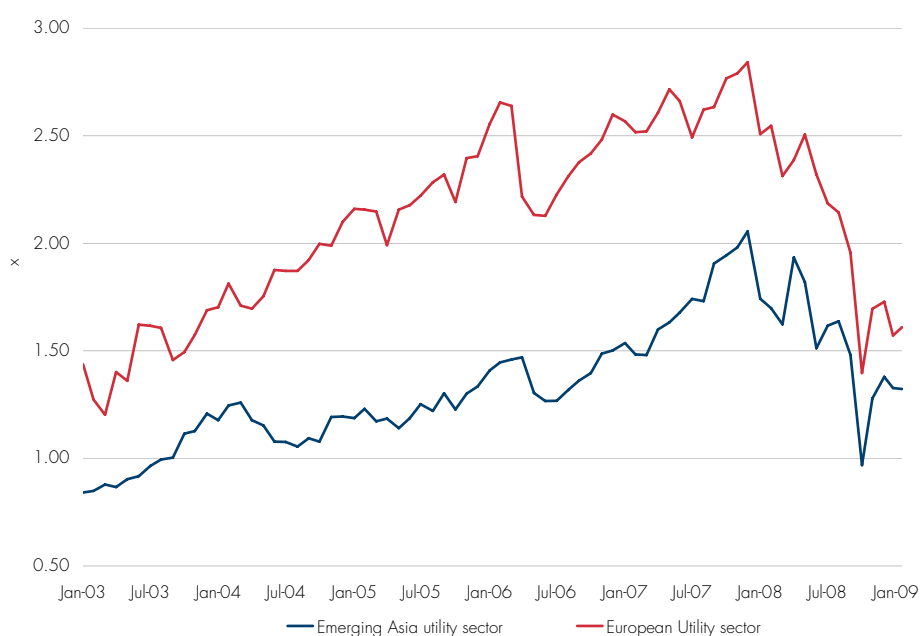
Valuation multiples – seasonality distorts picture

In addition to our DCF-based valuation, we have compared SEC with other emerging market and European utility companies, which represent valuations for firms in more liberalised electricity markets on a variety of valuation multiples. Our conclusions:

- SEC's P/E 2009F is 28.5x, a significant premium to the average for emerging market and European utility companies on 10.7x. However, the seasonality in SEC's earnings (and quality) may distort earnings and cash flow multiples. This factor as well as the relative differences in feedstock pricing and tariffs when benchmarking to other companies, mean that price-to-book multiples are a more appropriate valuation matrix relative to P/E or EV:EBITDA in our view. Also SEC's high depreciation as a result of the formation of the company (ie, from merging 10 companies) also distorts P/E and EV:EBITDA multiples. SEC is trading at 0.8x P/B 2009F, relative to 1.6x and 1.3x average for European and emerging Asia utilities, as shown in the chart below.

Price-to-book ratios for European and emerging Asia utilities sector

SEC is trading on 0.8x P/B relative to the average of 1.6x and 1.3x for Europe and emerging Asia



Source: Nomura Strategy team

- SEC's dividend policy means it selectively pays dividends to non-government shareholders. The Saudi government does not receive dividends for ten years since SEC's inception in 1999 provided that dividends do not exceed 10% of the par value of the shares. If dividends exceed 10% of the shares' par value, the government's share shall be treated similar to the share of other shareholders. As such, SEC's dividend yield is 7% higher than QEWC's and in line with other liberalised utility sectors, such as Europe (average 4-5%) as shown previously on page 123.
- SEC's average earnings growth is 24% pa in 2009-13F, which reflects our expectation of higher tariffs in the medium term as discussed below.

Key positives

- **Restructuring benefits:** ECRA has announced a phased liberalisation for the Saudi power market, which initially involves the unbundling of SEC's power generation assets into four separate companies with similar asset characteristics. If we were valuing SEC's generation, transmission and distribution businesses using conservative valuation multiples by generation, transmission and distribution for other liberalised markets such as Europe, we see SEC valuation up to SAR 29/sh.
- **Low P/B multiples:** We see P/B as an appropriate measure to compare SEC's valuation, owing to the seasonality of its earnings may distort earnings multiples, and allows a better comparison with other power companies where differences in feedstock pricing and tariffs do not always provide visibility over earnings. SEC is trading on 0.8x P/B relative to 1.7x for QEWC, its closest peer and 1.6x and 1.3x relative to Europe and emerging Asia.
- **Tight power markets in Saudi Arabia:** We expect the Saudi power market to remain tight in the near-term with supply struggling to meet demand, especially in the peak demand summer months. However, new additions toward early next decade may lead to a more balanced market in the medium-term.
- **Higher power prices:** We expect Saudi power prices to slowly increase from current levels. The ECRA has proposed SEC's weighted average tariff at SAR 0.15/kwh to the Council of Ministers for 2009. We have assumed SAR 0.13/kwh for 2009 rising to SAR 0.15/kwh in 2014 in our forecasts.
- **High dividend yield:** SEC dividend yield is 7%, which is similar to liberalised power sectors such as Europe. The government has waived its right to its dividend share for ten years since company inception in 1999 providing dividends do not exceed 10% of the par value of the shares and hence the yield just reflects payment to minority shareholders. We expect this arrangement to be maintained until SEC is fully liberalised. With the Saudi ten-year bond yield at 5.5%, investors may see SEC's dividend yield as an alternative way to invest in Saudi Arabia with the possibility of restructuring upside.

Key negatives

- **Slow liberalisation:** Between 2000 and 2002, a proposal to unbundle SEC was taken, but the company made little progress to achieve this restructuring. This eventually led to the formation of ECRA in 2002 and a new electricity law and liberalisation schedule. Hence, many investors may see these latest steps as history repeating itself with limited restructuring in the medium term. We have taken a more cautious view but do see significant value should unbundling take place in 2009.
- **Economic benefits taken from SEC by IPPs:** SEC accounts for 86% of Saudi Arabia total generation capacity. However, the liberalisation of the sector means new generation companies are applying for licences in the Kingdom.³² These projects are likely to erode SEC's market share (we estimate this may fall to 80% by 2015 based on those projects proposed) and, hence, economic benefits typically enjoyed by most monopoly positions.
- **Social benefits rather than increased tariffs:** Historically, power supply provided a link between society and the King in the Saudi Arabia, and the low prices provided to society are testament to this view. The Kingdom seems to be caught between providing an attractive environment to harvest new investment and introduce competition required to meet growing demand while maintaining the social right for citizens to share in the Kingdom's cheap and available resources. This may mean the government may not be willing to increase SEC's tariffs in the medium term.
- **Expansion risks:** We expect SEC to increase its capacity from 36GW in 2009 to 45GW in 2014. With challenges over project financing in the GCC for downstream projects, we expect not all the company's expansion projects to go ahead, which we reflect in our assumptions.
- **Low free float & disclosure:** Saudi Electric's free float is only 19%, the lowest for our Middle East coverage. This, together with the foreign ownership restrictions, means that the size of accessible float is too small to invest in for some funds. While the company provides details of its business in its annual reports, quarterly results are in Arabic and there is limited operational information.

³² For an incorporated Saudi company, the time for ECRA to grant, license and approve authorization is 11 days.

Positive on restructuring

Saudi Electric is Saudi Arabia's mostly state-owned power monopoly with currently 33GW of generation capacity. The electricity regulator in Saudi Arabia has proposed a plan to unbundle Saudi Electric into a holding company comprising of four separate generating companies with the eventual liberalisation of the wholesale market. Our investment case highlights the key points to Saudi Arabia's liberalisation and is detailed below.

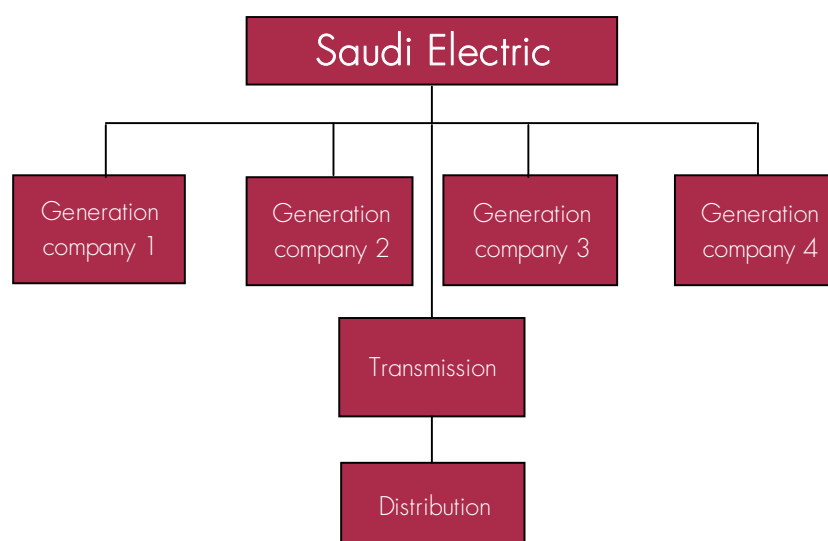
Benefits to unbundling

The Electricity and Co-Generation Regulatory Authority has proposed a series of measures to restructure SEC and introduce competition within the power sector. These involve the following steps:

- **Unbundling:** Restructuring SEC into four generation companies, a transmission company and a distribution company with SEC initially as the holding company. These generation companies must have assets of similar size, production cost, mix of technology and have no dominance in a specific region in the country.
- **Introduction of competition:** Competition for services by large customers, which allows Saudi Arabia's main power users to contract directly with the new generation entities as opposed to competition from existing IPPs.
- **Wholesale competition:** This stage will allow new entrants to compete within the distribution sector and/or separate SEC's existing distribution business into newly competing entities. The transmission company will remain in government ownership.

Proposed schematic restructuring of SEC

Unbundling of SEC will involve the creation of four new generation companies, which may attract foreign investors into the power market



Source: Nomura estimates

SEC's board of directors has approved the restructuring plan, and we believe that the first step will be completed within a year. The new generation companies may be sold, undertake an IPO or allow a strategic partner to provide capital and technology thereby improving efficiencies. With SEC considering raising capital via an IPO to fund its PP11 project (MEED, 1 February 2009), we believe that the latter two options are more likely, which may highlight to investors SEC's value on a sum-of-the-parts basis rather than in its current form.

Break-up value may provide upside

If we assume only 50% of European utility valuations, we see SEC's valuation at SAR 15/sh

SEC, like many other emerging utility firms, does not provide specific financial information on each of its main functions – generation, transmission and distribution. In an assessment of the break-up value for SEC in the context of the unbundling discussed above, we have applied average valuations for other markets where the utility sector function is more transparent, ie, value for km for transmission. While we appreciate there are variances between countries and regulatory regimes, our analysis highlights the possible upside for SEC if the company was fully liberalised. For example, the table below shows average valuation multiples for generation, transmission and distribution for selected European markets taken from our European utilities team. Using these multiples together with the operational data that SEC provides in its annual report and applying discounts to the European valuation multiples, we see higher value in unbundling SEC based on this approach.

SEC sum-of-parts valuation based on discounts to European utility valuations

	SEC Data	Average European multiple	SEC sum-of-parts valuation based on discount applied to European multiples, SAR m						
			90%	80%	70%	60%	50%	40%	
Transmission									
Length of Network, km	37,981	0.996	SAR/km	34,044	30,262	26,479	22,696	18,913	15,131
Electricity vols transported, Kwh	185,471	0.131	SAR/Kwh	21,817	19,393	16,968	14,544	12,120	9,696
a) Average value				27,930	24,827	21,724	18,620	15,517	12,414
Distribution									
Length of Network, km	329,734	0.136	SAR/km	40,253	35,780	31,308	26,835	22,363	17,890
Number of Customer, million	5.18	4702.4	SAR/cust	21,933	19,496	17,059	14,622	12,185	9,748
Electricity vols transported, Kwh	169,750	0.443	SAR/Kwh	67,721	60,196	52,672	45,147	37,623	30,098
b) Average value				43,302	38,491	33,680	28,868	24,057	19,245
Generation									
Generation Capacity, MW	32,603	1.945	SAR/W	57,066	50,726	44,385	38,044	31,703	25,363
c) Average value				57,066	50,726	44,385	38,044	31,703	25,363
Total value (a + b+ c)				128,299	114,044	99,788	85,533	71,277	57,022
Net debt + investments				(7244)	(7244)	(7244)	(7244)	(7244)	(7244)
Equity Value, SARm				121,055	106,799	92,544	78,289	64,033	49,778
Share Price (SAR)				29.1	25.6	22.2	18.8	15.4	11.9

Source: Company data, Nomura estimates

Unbundling reminiscent of other emerging power monopolies

Restructuring in other power markets, such as Russia is expected to increase efficiencies and generation capacity

SEC's proposed restructuring is reminiscent of the unbundling in other power monopolies, for example, the Russian power monopoly, UES. The low price for electricity driven by cheap gas (similar to Saudi Arabia) or coal feedstock and Russia's economic growth led to strong power demand growth within the country. However, the lack of investment within Russia's power sector had resulted in power shortages. As such, the government restructured UES into a series of generation (OGKs and TGKs) and distribution companies with the transmission grid still controlled by the government. This aimed to promote investment and introduce efficiencies within the sector similar to the ECRA's plan. In addition, we see other utilities in Saudi Arabia being liberalized. For example, Saline Water Conversion Company (SWCC), the country's state-owned desalination firm is expected to outline a regulatory regime which will mean SWCC is unbundled into a private sector holding company despite the financial crisis according to Feheid Al Shareef, governor of SWCC (*Al Riyadh*, 2 February 2009).

Higher power prices supportive for margins

Power prices in Saudi Arabia are one of the lowest in the world. We expect liberalisation to slowly increase tariffs in the medium term

Power prices in Saudi Arabia are one of the lowest in the world as shown in Appendix 4. In 2007, the Kingdom's average cost for electricity production was SAR0.149/Kwh (\$0.04/kwh) relative to SEC's average sales price of SAR0.126/Kwh (\$0.03/kwh) according to ECRA. As part of the unbundling process, tariffs are to be increased and will be reviewed each year based on changes to costs of electricity production with a proposal being put forward by ECRA to the Council of Ministers. We have assumed a price for SEC at SAR0.13/kwh for 2009, lower than SAR0.15/kwh which is currently awaiting approval by the Council of Ministers. Any decision by the government to reduce tariffs previously agreed with ECRA within each year means that any losses are absorbed into a Tariff Balancing Fund which is the responsibility of the government to manage and not SEC. This fund will be worth approximately SAR4.4bn³³ and will be replenished. We expect the introduction of competing generation companies to improve efficiencies and higher tariffs to improve SEC's margins in the medium-term.

Since tariffs for SEC are an important driver of the company's earnings, we have conducted a sensitivity based on the outlook for SEC's weighted average tariff and the WACC.

³³ The value of the fund is approximately 2.5 months worth of SEC's revenue and we have assumed average sales price at SAR0.15/kwh

Sensitivity analysis with weighted average tariffs growth and discount rate for SEC's price target, SAR/sh

We forecast 3% pa increase in SEC's tariffs in the medium term

Discount rate	SEC's weighted average tariff growth, %								
	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%
8.0%	25	28	30	33	36	39	42	45	48
8.5%	22	24	27	29	32	34	37	39	42
9.0%	19	21	23	25	28	30	32	35	37
9.5%	16	18	20	22	25	27	29	31	33
10.0%	14	16	18	20	22	24	26	28	30
10.5%	12	14	16	18	19	21	23	25	27
11.0%	11	12	14	16	17	19	21	22	24
11.5%	9	11	12	14	15	17	19	20	22
12.0%	8	10	11	12	14	15	17	18	20
12.5%	7	8	10	11	12	14	15	17	18
13.0%	6	7	9	10	11	12	14	15	16
13.5%	5	6	8	9	10	11	12	14	15

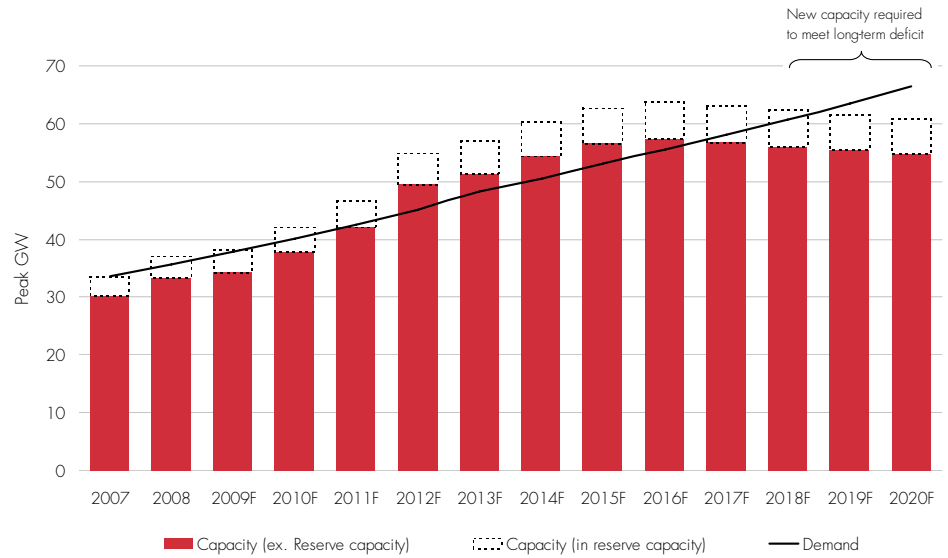
Source: Nomura estimates

Tight power market at peak load

Power demand growth averaged 7% last year with the historical ten year average at 5% pa. This is mainly driven by the low price for electricity (~\$0.03/kwh), population growth (2.5% pa) and industrialisation/desalinisation growth within the country. With the Saudi Arabian budget continuing to spend on infrastructure, industry and agriculture as shown in the chart below, we expect robust power demand for the Kingdom in the medium-term. We forecast demand growth at 6% pa, although we see capacity growth at only 4% pa 2009-2020. In the near-term supply may struggle to meet peak demand, although new additions toward early next decade may lead to a more balanced market.³⁴ The chart below shows that the Saudi Arabian power market will remain tight from 2009 with peak demand summer months where air conditioning demand supports power usage particularly tight (deficits based on our assumption of 10% reserve capacity). As an example of how tight market can get in the summer, 2006 saw Aramco import 160ktonnes of fuel oil into the country for the first time ever to meet the deficit in peak summer demand.

³⁴ The government's stated goal is to add 30GW of new generating capacity by 2020 according to Ali Saleh al-Barrak, SEC's CEO. We take a slightly more cautious view on new additions as shown in the chart above.

Saudi Arabian power supply/demand outlook (peak demand)

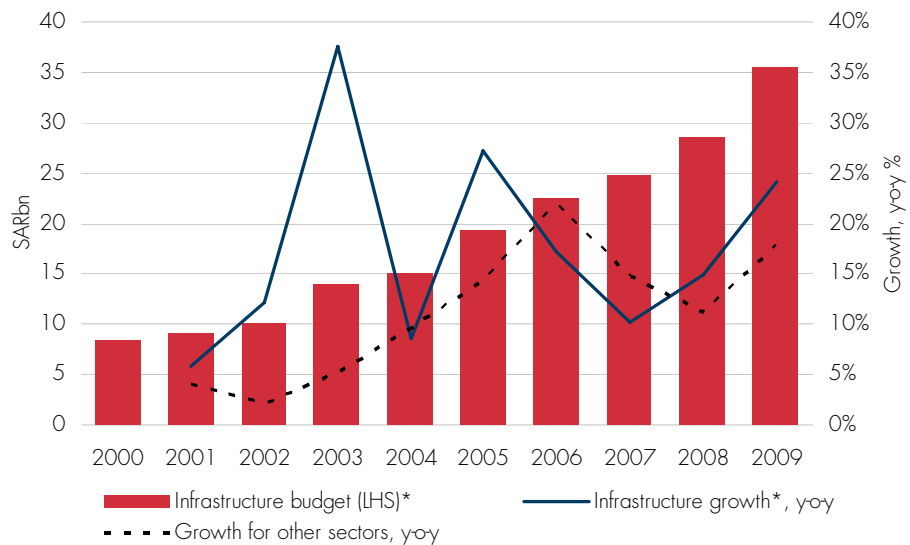


Source: Company data, ECRA, Nomura estimates. We assume reserve capacity at 10%

Saudi Arabian spending for major sectors

Spending on infrastructure, industry, water and agriculture has been one of the highest growth major sectors over the last seven years in the Saudi budget

Saudi Arabia plans to spend \$120bn on roads, railways and new cities in the next five years



Source: Saudi Ministry of Finance. *Includes Industry, water & agriculture

For more background information on the Saudi Arabian power market see Appendix 4.

Earnings and cost assumptions

We have assumed SEC's capacity outlook based on our supply/demand analysis for Saudi Arabia and assumed that SEC runs its plants at 58% implied plant load factor (PLF) based on historical implied PLF. Since SEC is the sole agency responsible for transmission and distribution, we have assumed that it purchases any difference between the units sold by it and the units produced from its plants, from IPPs and SWCC. Consistent with the historical average, we have assumed that transmission and distribution loss is 12% of the total units sold.

We have assumed a gradual rise of 3% pa in weighted-average tariff from SAR 0.13/kwh in 2009, below ECRA's proposal to the Council of Ministers to SAR 0.14/kwh in 2013 in our forecasts. However, for residential consumers, we have kept the tariff flat, consistent with comments from ECRA. We have assumed the customer profile split as 51%, 31% and 18% for "residential", "industrial and commercial" and "others", respectively, in 2009.

We have assumed that the revenue generated through meter reading, maintenance and billing is 3% of the revenues from the sale of electricity, broadly in line with the historical data. The electricity connection tariff is dependent on the number of customers being added each year, and we assume an average growth of 6% pa for the connection tariff. We expect the cost of production (ex-depreciation) will increase by 7% in 2009, 6% in 2010 and 5% pa thereafter. We have assumed the proportion of split of total cost among fuel expense, purchased energy, operations & maintenance and general/admin expenses to remain constant at 37%, 10%, 51% and 2%, respectively.

We have assumed capex at SAR 22bn pa during the period 2009-12 in line with company guidance (~SAR 90bn). For 2013 and beyond, we have assumed capex at SAR 3bn pa. Depreciation schedule is based on asset life of 25 years.

Accounting under Saudi GAAP

SEC accounts are reported under Saudi GAAP, which we have used in our analysis. In presenting the income statements, special items are not always split out. As a result, we make adjustments based on our opinion related to a specific non-recurring item(s) such that our estimates of adjusted net income may differ from reported net income. SEC does not provide segmental financial information based on generation, transmission and distribution.

All tables on page 143 are sourced Company data, Nomura estimates unless otherwise stated.

Forecast

Summary income statement (Saudi GAAP)

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Operating Revenue							
Electricity Sales	19,463	20,683	22,869	24,380	25,990	27,706	29,536
Meter reading, maintenance and bills preparation to	723	768	686	731	780	831	886
Electricity connection tariff	793	843	893	947	1,004	1,064	1,128
Total Operating Revenues	20,979	22,294	24,449	26,058	27,773	29,602	31,550
Operating Expense							
Fuel expenses	(4,938)	(5,462)	(5,693)	(5,877)	(6,001)	(6,148)	(6,602)
Purchased energy	(1,371)	(1,517)	(1,581)	(1,632)	(1,666)	(1,707)	(1,833)
Operations and maintenance	(6,760)	(7,479)	(7,794)	(8,046)	(8,217)	(8,418)	(9,040)
Depreciation	(6,372)	(6,788)	(7,674)	(8,560)	(9,446)	(10,332)	(10,452)
G&A expenses	(284)	(314)	(328)	(338)	(345)	(354)	(380)
Total Operating Expense	(19,725)	(21,560)	(23,069)	(24,453)	(25,676)	(26,960)	(28,308)
Operating Income	1,255	734	1,380	1,605	2,098	2,642	3,243
Other Income	339	341	0	0	0	0	0
Deferred Zakat Expense	(41)	0	0	0	0	0	0
Net Income for the year	1,553	1,075	1,380	1,605	2,098	2,642	3,243
EPS	0.4	0.3	0.3	0.4	0.5	0.6	0.8
growth, %	10%	(31%)	28%	16%	31%	26%	23%
DPS	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Payout	188%	271%	211%	181%	139%	110%	90%
growth, %	0%	0%	0%	0%	0%	0%	0%

Increase in revenue from 2009 relates to capacity expansions and an increase in tariffs

SEC's earnings increase owing to partial liberalisation of the power sector and higher tariffs

We expect SEC to maintain its dividend policy of providing dividends to minority shareholders. Dividend has remained fixed for the last few years

Summary balance sheet

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Shareholders equity	48,134	48,523	49,355	50,413	51,963	54,058	56,754
Minorities	0	0	0	0	0	0	0
Short term debt	979	283	283	283	283	283	283
Long term debt	8,846	9,921	22,455	33,326	43,201	51,599	40,073
Cash	(5,589)	(800)	(800)	(800)	(800)	(800)	(800)
Net debt	4,236	9,404	21,938	32,810	42,685	51,082	39,557
Capital employed from debt	52,371	57,927	71,293	83,222	94,648	105,140	96,310
Balance sheet ratios							
Net debt to equity, %	9%	19%	44%	65%	82%	94%	70%
Net debt capital, %	8%	16%	31%	39%	45%	49%	41%
RoACE, %	3%	1.9%	2.1%	2.1%	2.4%	2.6%	3.2%
RoAE, %	3%	2.2%	2.8%	3.2%	4.1%	5.0%	5.9%

Increased gearing owing to borrowing for expansion projects

Low returns owing to tariff system in Saudi Arabia

Summary cash flow

SAR, m	2007A	2008A	2009F	2010F	2011F	2012F	2013F
Net income	1,594	1,075	1,380	1,605	2,098	2,642	3,243
DD&A	6,372	6,788	7,674	8,560	9,446	10,332	10,452
Minorities	0	0	0	0	0	0	0
Deferred tax	0	0	0	0	0	0	0
Post tax interest charge on debt	0	0	0	0	0	0	0
Cash EBIDA	7,965	7,862	9,053	10,165	11,544	12,974	13,695
EBIDA per share	1.9	1.9	2.2	2.4	2.8	3.1	3.3
Less Post tax interest charge on debt	0	0	0	0	0	0	0
Other non-cash items	935	459	0	0	0	0	0
Changes in working capital	8,545	9,650	614	1,665	1,283	1,329	1,377
Operating cashflow	17,446	17,971	9,667	11,830	12,826	14,304	15,073
Capex	(14,778)	(22,154)	(22,154)	(22,154)	(22,154)	(22,154)	(3,000)
Capex Growth	27%	50%	0%	0%	0%	0%	-86%
Dividend	(595)	(527)	(547)	(547)	(547)	(547)	(547)
Net Cash Flow from operations	2,073	(4,711)	(13,034)	(10,872)	(9,875)	(8,397)	11,525
Non-recurring items							
Acquisitions	0	0	0	0	0	0	0
Divestments	147	0	0	0	0	0	0
Share repurchase	0	0	0	0	0	0	0
Surplus (deficit) from our line items	2,220	(4,711)	(13,034)	(10,872)	(9,875)	(8,397)	11,525
Other movements	(831)	(79)	0	0	0	0	0
Net cash surplus (deficit)	1,389	(4,789)	(13,034)	(10,872)	(9,875)	(8,397)	11,525

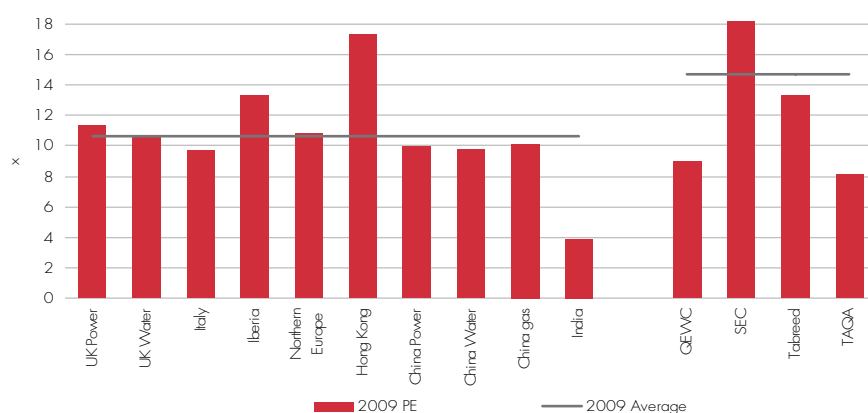
Increase in capex reflects SEC's new generation projects such as Riyadh power plant project. SEC capex guidance is ~SAR90bn 2009-2013

Selected relative valuation analysis – Power & utilities

P/E valuation at 15x 2009F earnings for the Middle East group is a premium relative to Europe and Asia. However, visibility (and quality) of earnings distorts P/Es. On this benchmark, we believe TAQA still offers value relative to the other Middle East utility group.

Data for Europe and Asia is based on the average multiple for Nomura's utilities coverage.

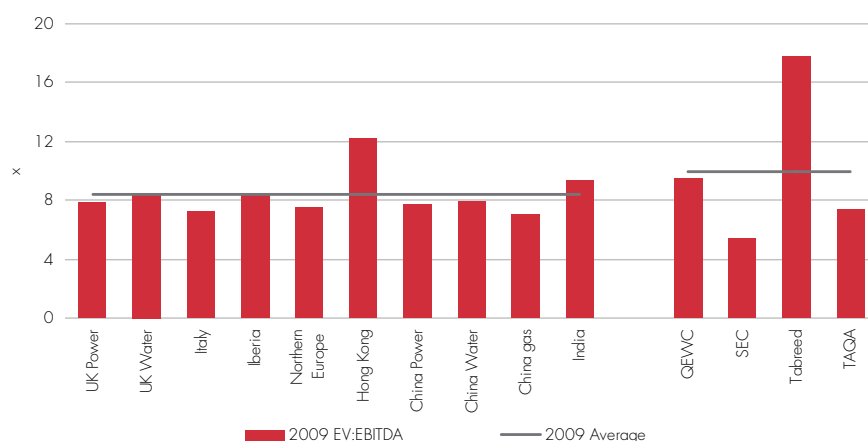
2009F P/E ratio



Source: Bloomberg, Nomura estimates. SEC P/E is 28.5 and not shown fully on chart

EV/EBITDA shows QEWC at a premium relative to the global peer group, while the high depreciation charge for SEC means cash flow multiples look more attractive. Tabreed trades at a premium to the Middle East group in 2009, although this narrows from 2010 owing to better visibility over the company's restructuring plans.

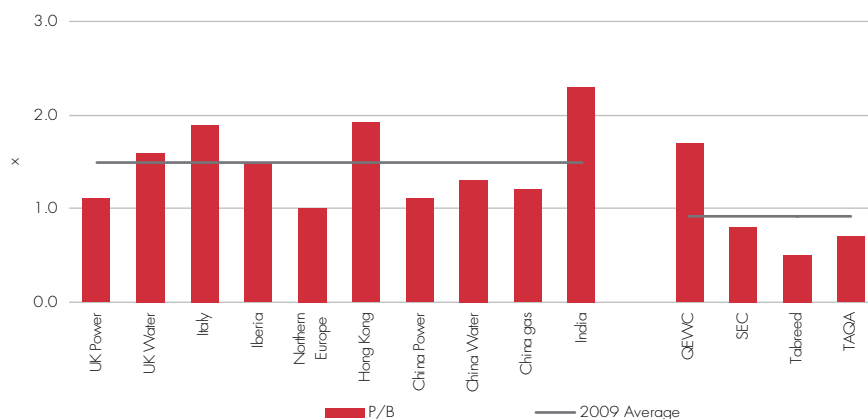
2009F EV/EBITDA



Source: Bloomberg, Nomura estimates.

The seasonality of SEC's business means earnings fluctuate during the year, so we believe price-to-book multiples are an appropriate way to view SEC relative to its peers. On this basis, the company trades at one of the lowest multiples in the group shown. TAQA and Tabreed also look attractive on this measure. For QEWC's, we exclude the mark to market of the interest rate swaps by its JVs.

2009F P/B ratio



Source: Bloomberg, Nomura estimates.

Appendix 1 – Key country characteristics

Country characteristics

	Qatar	Saudi Arabia	UAE
Economics			
Real GDP growth, %	4.2	1.0	(1.0)
Inflation, %	10	6.5	7.4
Exchange rate to \$	3.64	3.75	3.57
Nomura's view	Better positioned than other GCC economies in the current economic environment. Relative size and gas developments are partly able to support higher domestic spending in the medium term.	Wealth cushion erosion and still dependent on petrodollars to support diversification plans.	Slower growth from lower oil price and real estate growth outlook. Spending more on domestic infrastructure and stimulus packages to mitigate downturn partly.
Financial markets			
Market share in MENA by market cap, %	9	34	17
Avg daily traded volumes in market share, %	8	52	15
Approx. no. of domestic conventional/Islamic funds	~10	~30	~15
Open to foreign investors	Typically 25%, but varies by company	0%, access via swap arrangement	Typically 49%
Nomura's view	Less retail driven than Saudi, but smaller market and aiming to establish itself within the GCC.	Retail driven market with ~90% of market volume from Saudi individuals.	More liberalised than Saudi and Qatar, although made up of three main exchanges.
Politics			
Nomura's view	Politically stable from ruling family. Limited pressure for political reform and maintain an independent foreign policy, although align itself with the GCC.	Regime remains stable and the pace of reform measured. No challenges expect to King Abdullah who continues to pursue modernisation and economic diversification actively.	Politically stable and still in the hands of the ruling families. We believe the UAE authorities will continue to pursue liberal economic policies and maintain a pro-Western stance.
Other			
Oil production (% globally)	1.2 mbls/d (1%)	10 mbls/d (13%)	2.9 mbls/d (4%)
Gas production	60 bcm (18%)	76 bcm (3%)	49 bcm (4%)
Oil reserves	27k mboe (2%)	264k mboe (21%)	98k mboe (8%)
Gas reserves	900 tcm (14%)	250 tcm (4%)	215 tcm (3%)

Source: Nomura estimates

Appendix 2 -- Valuation methodology

For our Oil & Gas, Chemicals and Mining coverage, we employ a sum-of-the-parts methodology based on the sum of our separate segment valuations less net balance sheet liabilities. Where segmental information is not provided or a company's operations are highly integrated, we have also used a DCF-based approach. Both these methodologies are similar to those of Nomura's Chemicals, Mining, Utilities and Oil & Gas teams and, hence, provide a consistent approach for investors when comparing companies on a global basis. Our approach to valuing each business segment is as follows:

Upstream – In the upstream, we assume capital continues to be invested for the next five years, after which we decline the production profile over a 30-year period. The associated cash flows drive our segment DCF valuation. Reserves not developed within five years are valued on a dollars per barrel basis. The calculation steps we take are as follows:

- Calculate cash flow for the next five years using our existing earnings models.
- Deduct capex needed to bring this production on stream.
- Assume production declines at constant rate from Year 6 to Year 36.
- Set decline rate to produce all the remaining developed proven and probable reserves over the period.
- Cash flow per barrel is kept flat real with the 2013 figure, which is based on our \$75/bl flat real (2008 money) long-term Brent price forecast.
- Calculate NPV at our estimate of the company's WACC, as shown in the table below.

We add on value for the remaining undeveloped and technical reserves on a dollars-per-barrel basis. 2P reserves, which are not onstream within five years, are valued at 50% of the post-capex NPV of the producing reserves, and 3P (technical) resources are valued at 10% of this amount. These probabilities reflect the P50 and P10 statistical probabilities typically associated with probabilistic modelling of field reserves and resources.

The formal reserve disclosures for oil & gas companies give the estimated proven reserves, which are a conservative (90% confidence level) view of the quantities likely eventually to be produced. In addition, some companies now provide an estimate of probable reserves and their total resource base. This includes resources in fields likely to be commercial, but not yet sanctioned for development, together with volumes expected to be produced from existing proven fields with less than 90%, but more than 50% confidence level.

Our DCF estimates are based on discounting the cash flow from all barrels in fields expected to be onstream by the end of 2013, not just the proven ones. Where companies give estimates for unproven resources, we have used those. Where none is available, we have made our own estimates using the historical revisions ratio and industry averages as a guide.

Downstream (refining), chemicals and power – For these segments or businesses, we forecast free cash flow over a six-year period (2009-14) based on our model assumptions. For free cash flow at our terminal year (typically 2014), we apply a terminal growth based on our conservative view of long-term inflation. The discounted product of these forecasts is our total value. We adopt this methodology to firms that we believe have relatively stable and certain cash flow stream owing to tariff structure or offtake agreement. For chemicals companies, where there are significant capacity additions, high medium-term capex plans and since the industry exhibits a high degree of cyclicality over time, we dispense with only a five-year forecast as this may not reflect the outlook of future cash flows. Instead, we forecast free cash flow to a longer terminal year, typically 2020. We have also adopted this approach for Tabreed since there is uncertainty on restructuring, and the medium-term cash flows may not reflect the outlook for the business in the long term. We also include balance sheet net working capital where provided or make an assumption by segment.

Balance sheet liabilities

We include balance sheet items such as inventories, short-term creditors and debtors in working capital. Net interest-bearing liabilities are included as part of net debt. We also include long-term liabilities and assets. Some of these long-term liabilities may relate to future pension costs or other similar obligations, which were earlier reported on an actuarially smoothed basis. However, IFRS and Saudi GAAP require all assets to be valued at market value. With the recent falls in stock markets, we expect these pension deficits to become larger; hence, we include net pension deficits (where provided) from our net asset value calculation.

Discount rates for Middle East companies

Company	Discount rate
Dana Gas	11.0%
TAQA	10.5%
Petro Rabigh	11.0%
SABIC	9.7%
Industries Qatar	10.0%
Ma'aden	10.1%
QEWG	10.5%
SEC	11.0%
Tabreed	11.7%

Source: Nomura estimates

Appendix 3 – Middle East power market to tighten gradually

As a part of our report, we have conducted a detailed analysis of the Middle East power sector, which mainly includes Saudi Arabia, Iran, United Arab Emirates, Qatar and Kuwait. We analysed the current market scenario of electricity in these countries and forecasted the demand/supply dynamics for the 2009-20E period. While there will undoubtedly be delays or cancellations to some new power generation projects in the region, we believe continued robust demand growth combined with a lack of generation capacity leads to an overall gradually tighter market for the Middle East in the coming years. The table below shows a list of the assumptions used for our analysis. We have taken a conservative view for new projects and employed delays to operational start-up. We expect some moderation in power demand growth; although we still expect growth to be above historical levels.

Power supply/demand analysis assumptions, 2009-20

Assumptions	Comments
Demand	Based on regression analysis with two independent factors GDP (in local currency) and population. Avg growth rates: Saudi 6%, Iran 6%, UAE 7%, Kuwait 5%, Qatar 10%
Population	IMF estimates
Quarterly demand prediction	Based on the guidance given by the Ministry of Power, Iran, QEWC, SEC, ADWEA, DEWA and historical demand patterns
Supply	Includes all the projects confirmed by the ministry of power of different countries and power projects under construction. Only funded projects included
Retirement schedule	2% of the existing capacity each year (similar method used by ECRA for retirement of isolated systems)
Quarterly capacity addition	The capacity addition has been considered on the basis of data provided by the governments of respective countries; however, where no specific quarter is mentioned, we have calculated quarterly capacity additions assuming an equal portion of capacity added each quarter
Delays to supply	We have assumed that 60% of projects fail to meet their deadline and are completed in following calendar year; we have allowed for delays to start-up
GCC interconnection	Savings from GCC interconnect based on the guidance from analysis by ECRA. The savings for other countries is based on the capacity of the transmission network connecting the country
Reserve capacity	Based on the historical data,
Reserve by country	Saudi 10%, Iran 20%, UAE avg 25%, Qatar 10%, Kuwait & others 10%

Source: Nomura estimates

Near-term tightness in Saudi Arabia and Kuwait

We see possible shortfalls in power supply in Saudi Arabia especially in peak demand months in 2009, although we see a more balanced situation early next decade

Our supply/demand analysis for the Middle East power market shows the tightest power markets are Saudi Arabia and Kuwait in the near term. For Saudi Arabia, currently low power prices may still maintain the Kingdom's robust demand growth (6% pa from 2009) despite our expectation for a rise in prices. We still see new generation unable to keep pace with demand in 2009 and perhaps 2010, although we see a more balanced market early next decade. However, if new projects planned for 2015+ do not materialise, the market may well struggle to meet peak load demand. Kuwait shows a peak load deficit for the 2008-10 period, although this improves early next decade. We forecast demand growth on average at 5% pa with peak load availability growth on average at 6% pa to 2015. As a sign of the near-term tightness in the Kuwaiti power sector, the country is likely to start importing LNG this summer. Kuwait Oil Company (KOC) is expecting to complete offshore facilities to receive LNG ships in May and the OPEC production cuts have also affected associated gas volumes for the country (*The National*, 11 January 2008). With LNG prices being sold to Asia over \$10/mbtu (*WGI*, 5 February 2009) and gas prices in the Middle East typically no more than \$2/mbtu, this is a heavy premium to pay for the country.

Industrialisation creates supply surplus in Qatar

We expect a surplus in power generation capacity in Qatar, although in the near term peak periods may be tight

We estimate that Qatar's power generation will grow on average by 14% pa to 2015 partly owing to QEWC's Ras Girtas and Mesaieed projects, which are expected to increase the country's generation capacity from 5.8MW in 2009 to 8.5MW by 2015. We see robust demand at, on average, 10% pa to 2015 owing to continued population and GDP growth and development within the industrial and infrastructure sectors. This creates an overall surplus on a capacity basis (~30% pa) with the country able to meet peak demand in the summer months except 2009, which may be tight as projects gradually ramp up. Qatar's overall surplus may help to assist other Middle East neighbours such as the UAE and Saudi Arabia owing to the GCC interconnection project (see below), although we believe it is unlikely that the country will leverage its position by providing higher-priced power owing to the GCC interconnector agreement (ie, the project is designed as an emergency or balancing facility rather than for commercial gain).

Abu Dhabi demand more robust than Dubai

We expect power demand growth to slow down in the UAE, although some Emirates such as Abu Dhabi and the Northern Emirates may still face shortages

Our analysis shows that the UAE power market is tight in the peak demand summer months in the next two years with only a 6% surplus available in the worst case scenario. On an annual average basis, we see average demand growth at 7% pa with supply growth at 8% pa to 2015; however, this does not highlight the relative tightness between each Emirate. For example, we expect average supply growth in Abu Dhabi and the Northern Emirates at 5% pa, while Dubai generation is likely to grow on average at 7% pa. In contrast, we expect demand growth in Dubai to moderate while Abu Dhabi and the Northern Emirates may remain more resilient to the UAE slowdown at 6% pa. This partly reflects Dubai's higher exposure to commercial real estate relative to the Abu Dhabi and the Northern Emirates. The latter also suffers from the lack of gas feedstock capacity for power generation, which is the main reason for the UAE gas project to be completed.

Middle East power supply/demand outlook for selected countries

	2008F	2009F	2010F	2011F	2012F	2013F	2014F	2015F
Saudi Arabia								
Electricity demand TWh	202	214	228	241	256	274	287	301
change, yoy	6%	6%	6%	6%	6%	7%	5%	5%
Peak demand GW	36	38	40	43	45	48	51	53
Peak load available based on present and fully funded projects, GW	37	38	42	47	55	57	60	63
Maximum units (TWh) generation capacity	211	214	230	254	293	319	335	351
change, yoy	0%	2%	7%	11%	15%	9%	5%	5%
Surplus / (deficit) summer peak load - worst case	(6%)	(9%)	(7%)	(1%)	8%	10%	11%	11%
Average surplus/ (deficit) summer peak load	11%	7%	8%	15%	25%	29%	31%	30%
Energy units surplus/(deficit)	4%	(0%)	1%	6%	14%	17%	17%	17%
UAE								
Electricity demand TWh	76	82	88	95	102	110	117	125
change, yoy	8%	7%	8%	8%	8%	8%	7%	7%
Peak demand GW	14	15	16	17	18	20	21	22
Peak load available based on present and fully funded projects, GW	20	20	23	26	28	28	28	28
Maximum units (TWh) generation capacity	106	112	123	139	151	156	156	156
change, yoy	13%	6%	9%	13%	9%	3%	(0%)	0%
Surplus / (deficit) summer peak load - worst case	6%	4%	7%	15%	16%	12%	6%	0%
Average surplus/ (deficit) summer peak load	21%	21%	23%	31%	34%	30%	24%	17%
Energy units surplus/(deficit)	39%	37%	40%	47%	48%	42%	33%	25%
Qatar								
Electricity demand TWh	20.1	22.9	26.2	29.3	32.7	36.3	39.7	43.3
change, yoy	23%	14%	14%	12%	11%	11%	9%	9%
Peak demand GW	3	4	4	5	6	6	7	7
Peak load available based on present and fully funded projects, GW	4	4	6	8	9	9	9	9
Maximum units (TWh) generation capacity	21.0	24.4	31.1	41.6	49.9	52.3	51.9	51.6
change, yoy	16%	16%	28%	34%	20%	5%	(1%)	(1%)
Surplus / (deficit) summer peak load - worst case	(4%)	(2%)	8%	35%	50%	43%	34%	23%
Average surplus/ (deficit) summer peak load	11%	15%	29%	60%	74%	69%	59%	46%
Energy units surplus/(deficit)	4%	6%	19%	42%	53%	44%	31%	19%

Source: Company data, DEWA, ADWEA, SEWA, ECRA, IMF, Nomura estimates

Appendix 4 – Brief background to the Middle East power market

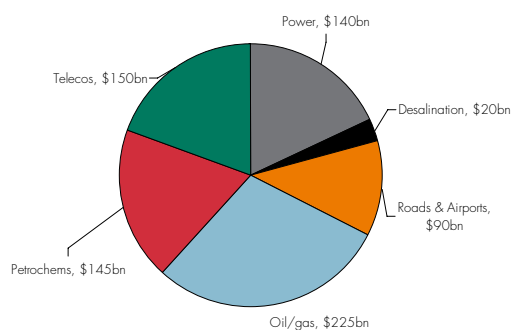
The Middle East power market is one of the fastest growing sectors in the region. Saudi Arabia and Iran are the largest markets, accounting for >55% of Middle East power generation in 2007 according to BP Statistical Review of World Energy June 2008. With installed capacity of 152 GW, the Middle East represents 3.5% of global electricity generation with 97% thermal generation. Power demand growth for the region has been ~6% y-o-y for the last decade relative to ~2% pa for the US and Europe. Indeed, consumption of electricity per capita in the UAE, Qatar and Kuwait is similar to that in the US, whereas it is relatively low in Iran, as shown in the chart below. This reflects the higher demand in peak summer periods as well as low electricity pricing limiting power demand efficiencies in the region. Despite the high power demand growth, the sector still faces many challenges namely:

- Inefficient use of energy;
- Substantial investment needs;
- Limited experience in engaging with the private sector owing to monopoly structure; and
- Peak load management and limited inter-regional connectivity.

We present an overview to the important power markets in the Middle East in the table below and a description of each of the major markets.

Middle East energy/infrastructure investments

We see continued spending in key projects in the Middle East



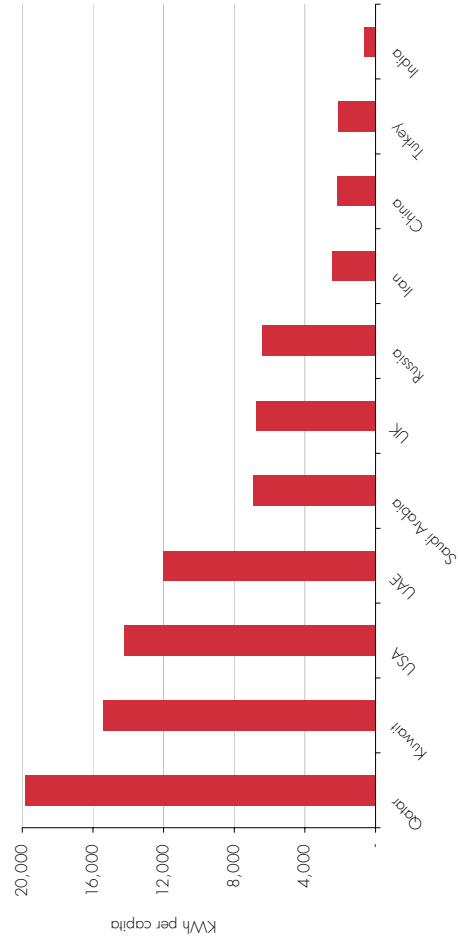
Source: MEED, IEA, Nomura estimates

Middle East power market summary

Country	Peak demand growth, GW	Installed capacity, GW	Demand growth, est.	Capacity growth, est.	Feedstock split, %				Installed capacity split				Electricity use split, %			Key participants
					Oil	Gas	Diesel	Others	Thermal	Hydro	Others	Residential	Commercial	Industrial	Other	
Saudi Arabia	34	37	6%	4%	30%	52%	18%	0%	100%	0%	0%	53%	11%	18%	14%	Ministry of Water & Electricity, ECRA, Saudi Electric
Iran	35	47	7%	8%	10%	73%	17%	0%	85%	15%	0%	33%	13%	32%	22%	Ministry of Energy, Tavanir
UAE	13	17	8%	10%	2%	98%	0%	0%	100%	0%	0%	31%	43%	11%	16%	FEWA, DEWA, ADWEC, SEWA
Kuwait	10	11	7%	9%	80%	20%	0%	0%	100%	0%	0%	86%	11%	1%	3%	Ministry of Energy
Qatar	3	3	15%	21%	20%	80%	0%	0%	100%	0%	0%	0%	0%	0%	0%	QEWC

Source: ECRA, FEWA, DEWA, ADWEA, SEWA, Saudi Electric, Tavanir, GEWC, Kuwait Ministry of Energy

Power consumption per capita by selected country



Source: UNDP 2007/2008 report

Iran – largest power market

Iran is the largest power market in the Middle East with 28% (193.3 TWh) of Middle East power market demand and installed capacity at 47,300 MW, according to Tavanir. The Iran power sector has the following key participants:

- Ministry of Energy (MoE) is responsible for development and maintenance of power system along with control on power trades. MoE delegates its responsibilities to Tavanir and the Market and Trading Regulatory Board;
- Tavanir (generation, transmission and distribution management company) is a holding company with the following subsidiaries: 1. Iran Grid Management Co. (IGMC) - the system operator & power pool operator; 2. regional electric companies (16) - transmission network owners; 3. organisations and companies responsible for management of electric power system development; 4. organisation for new sources of energy; and 5. organisation for energy productivity
- Market & trading regulatory board, is responsible for the development of standards and framework for regulation and monitoring activities of traders in the electricity market, operation and maintenance companies and distribution companies typically from the private sector.

Electricity demand growth in Iran has averaged 6-7% pa for the past five years. We expect the demand growth to continue at this historical average level owing to an increase in Iran's population growth, which declined in the mid-1990s to average 1.5% pa this decade. The sanctions imposed in the country mean private investment is a challenge and we see supply growth at only 2-3% pa. Thermal power is the main source of generation in Iran, accounting for 85% of total electricity supplied in the country with the remaining source hydroelectric. The primary fuel used for electricity generation is natural gas (>70% of electricity supplied uses natural gas) with only a few plants using oil and diesel as their primary fuel.

Iran has good interconnectivity both within the country as well as with neighbouring countries. The country has existing interconnections with Armenia, Azerbaijan, Turkey, Turkmenistan, Afghanistan, Pakistan and Iraq. The government of Iran has initiated de-bundling of the power sector into generation, transmission and distribution in order to attract private operators to make investments in the sector. However, private participation in the sector has been limited mainly because of the sanctions imposed on the country by the international community; 98% of the country's annual electric power is generated by Ministry of Energy and only 2% by private business.

Saudi Arabia – regulatory changes may improve supply tightness

Saudi Arabia is the second-largest power market in the Middle East with 27.5% (190.5 TWh) market share (*BP Statistical Review of World Energy June 2008*) and installed capacity at 37.1 GW (*Electricity & Cogeneration Regulatory Authority, ECRA*). The industry comprises the following participants:

- The Ministry of Water and Electricity is responsible for establishing overall policies, plans and strategies for the industry;
- ECRA is responsible for regulating the industry and issuing licences to any person engaged in any of the activities of the electricity industry;
- Saudi Electricity Company (SEC) owns 86% of Saudi's installed capacity; and
- Private and government companies such as Saudi Aramco, Tihamah Power Generation, Marafiq (Yanbu), Jubail Power typically have invested in the sector as part of downstream or chemicals projects.

Electricity demand growth in Saudi Arabia has averaged 6% y-o-y for the last five years, which is mainly supported by new industrial infrastructure and water projects; with the Saudi budget indicating a higher growth of spending for these sectors. We forecast 6% pa average demand growth to 2020 with supply growth at 4% pa over the same period, although new capacity early next decade may ease peak demand tightness. The primary fuel used for electricity generation is natural gas (>50% of installed capacity) with oil and oil products such, as diesel and heavy fuel oil (HFO), helping to manage the peak demand in summer months. Natural gas is likely to continue as the main fuel used for generation owing to its low cost (\$0.75/mbtu) and availability of supply in the region.

Regional distribution

The operating areas in Saudi for SEC are divided into Eastern, Western, Central and Southern Region with installed capacity split of 38%, 33%, 21% and 8%, respectively. Northern area is mainly comprised isolated systems with no presence of SEC. In the Southern Region, there are four autonomous systems that are not currently interconnected with each other. In each of the Eastern, Central, and Western regions, there is an interconnected grid that feeds the major load centres of the region. More than 50% of the electricity generated is supplied to residential consumers while industrial users, commercial users and government account for 18%, 11% and 14%, respectively; however industrial consumption is likely to go up in the next few years owing to the demand created by new industrial cities. The transmission and distribution (T&D) loss in Saudi has been in the range of 10% to 12%, whereas the T&D losses for the USA and UK have been at around 7.5% and 6.5%, respectively.³⁵ Saudi Arabia may benefit from the GCC interconnection project

³⁵ Source: ECRA Saudi Arabia, Energy Information Administration USA, Department for Business Enterprise and Regulatory Reform UK

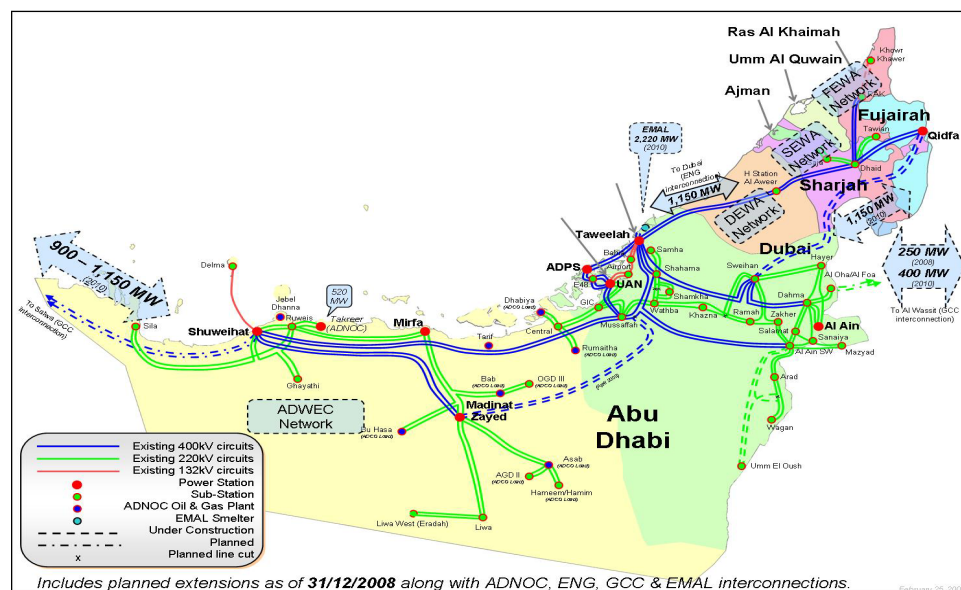
that will allow the country (in particular the Eastern operating area) to import or export a maximum of 1,800 MW under emergency conditions (see below for a brief outline of the project). The Saudi power market is regulated by the ECRA with emphasis given on private participation in generation, transmission and distribution. ECRA has taken a number of steps to encourage private participation in the sector. Activities like generation, transmission, distribution, trading, retail, export or import of electricity, cogeneration or trading in cogeneration products require licence from the regulatory authority in Saudi Arabia.

United Arab Emirates – slowdown in some Emirates

UAE accounts for 10% (70.8 TWh) of the total Middle East market and has installed capacity at 15GW. The UAE power sector has the following key participants, which are typically split by each Emirate:

- Abu Dhabi Water and Electricity Authority (ADWEA) generates, transmits and distributes electricity to Emirate of Abu Dhabi;
- Dubai Electricity and Water Authority (DEWA) generates, transmits and distributes electricity to Dubai region;
- Sharjah Electricity and Water Authority (SEWA) is responsible for planning and implementing expansions and future projects to develop the services of electricity in Sharjah; and
- Federal Electricity and Water Authority (FEWA) is responsible for producing and distributing electricity in the Northern Emirates.

UAE electricity network



Source: ADWEC

Electricity demand growth in the UAE has averaged ~9% pa for the last five years, and we expect this demand to slow down to 7% pa in the medium term as much of the high demand growth has been driven by real estate and robust population growth, particularly in Dubai. In 2020, we expect the demand (pre-losses) to be 172TWh with a peak demand of 31GW with thermal power the only source of generation in UAE. The primary fuel used for electricity generation was natural gas (98% of electricity supplied) with the remaining source, oil. Natural gas is likely to continue as the main fuel used for generation because of the relatively low cost and imports from abroad (for example, the Dolphin projects imports gas from Qatar at ~\$1.50/mbtu into the UAE).

The UAE government is gradually reducing the restrictions on private investments in the power sector. Abu Dhabi and the Northern Emirates opened their power sectors to private investments in 1997 and 1999, respectively. Since then, seven privately run power plants have been established in the Abu Dhabi region, but FEWA has not been able to attract private investors owing to its low power tariffs (tariff is at 30% of the cost of production according to FEWA). As a result, a severe shortage of power is forecasted in the region operated by FEWA.

The operating area in UAE is divided into regions managed by ADWEA, DEWA, SEWA and FEWA, with the installed capacity split of 48%, 32%, 13% and 7%, respectively. Emirates National Grid has been constructed to interconnect the four operating regions in 2006. Further GCC interconnection grid will allow the region to import or export a maximum of 1300 MW (900 MW to/from Kuwait, Bahrain, Qatar and Saudi Arabia and 400 MW to/from Oman) under emergency conditions.

Kuwait – no liberalisation

Kuwait accounts for 6.5% (45.1 TWh) of the total Middle East power market and installed capacity stands at 11GW, according to the Ministry of Electricity and Water). The regulatory power environment of Kuwait is controlled by the Ministry of Electricity and Water (MEW) with no appreciable progress made towards privatising the sector.

Electricity demand growth has averaged 4% y-o-y for the past five years, and we expect a similar level based on the high population growth, which has averaged 6% pa for the past five years with having struggled to maintain the same levels; however, with the Al-Zour and North Shuaiba power stations coming onstream, we see a more balanced market post 2010. Kuwait is being interconnected with Saudi Arabia, Bahrain and Qatar in the first phase of GCC interconnect project, which will allow the region to import or export a maximum of 1200 MW under emergency conditions.

Qatar – high demand growth, no supply shortage

We expect a balanced power market in Qatar in the medium term

Qatar accounts for 2.4% (16.3 TWh) of the total Middle East power market with installed capacity at 3.3GW, according to Qatar Electricity and Water Company. As discussed previously, the main participant key in the Qatar power market is QEWC, and Qatar General Electricity and Water Company (Kahramaa) is the sole transmission and distribution company for Qatar. The power market in Qatar has minimal regulations with private participation in major downstream projects, such as Ras Girtas Power Company and Ras Laffan Plant (B) projects.

Electricity demand growth in Qatar has averaged 8% pa for the last five years. We expect long-term demand growth at 10% pa driven by new liquefied natural gas and petrochemicals projects as well as industrialisation in the country (Qatar plans to invest \$29bn in petrochemical projects during 2005-10, which we still believe is on track despite the recent liquidity crisis). Thermal power is the only source of generation in Qatar and the primary fuels used for electricity generation are natural gas (80%) and oil (20%). Since Qatar is being interconnected with Saudi Arabia, Bahrain and Kuwait in the first phase of GCC interconnect project, we see this as a key benefit for the country. Under the project terms, Qatar may import or more likely export a maximum of 750 MW under emergency conditions.

Saudi Arabia, Iran and Bahrain have one of the lowest electricity tariffs in the world. Overall in the Middle East, the tariffs have been on the lower side owing to cheap availability of fuel and government subsidies (in case of Iran the electricity is heavily subsidised)

Electricity tariffs by country, \$cents/Kwh

Country	Residential tariffs	Industrial tariff
Dubai	7.1	7.1
Oman	5.3	4.8
Bahrain	2.1	4.3
Malaysia	6.7	7.7
France	13.6	8
US	11.1	6.7
Spain	14.9	12
Italy	24.5	15.2
Norway	20.1	10.7
Saudi Arabia	2.2	3.2
Iran	2.2	2.2

Source: ECRA

GCC interconnection may improve efficiency

The six GCC countries – Saudi Arabia, Qatar, Bahrain, Oman, Kuwait and UAE – are to be electrically interconnected by GCC interconnection grid. The grid is being built with the objective of supplying electricity during emergencies, reducing generation reserves for the countries, improve efficiency and provide a basis for electrical power exchange. The first phase of the grid, which begins operations at the end of 2009, is approximately 80% complete and will supply 1.5GW to the region at a cost of \$1.2bn with Saudi Arabia funding 40% of the cost for phase I of the grid. Phase II will connect the UAE to Oman and the third phase will link the first two sections of the grid. The map shows the phases of implementation along with the route.

GCC electricity interconnection development

GCC interconnection may limit power shortages, particularly in the summer months within the GCC



Source: GCC Interconnection Authority

Appendix 5 – Hydrocarbon pricing in Saudi Arabia

The pricing for hydrocarbons and minerals is governed by the Ministry of Petroleum and Mineral Resources. The pricing of hydrocarbons is based on a fixed price or under a mechanism linked to international prices. A summary is listed below:

Ethane: Ethane price is fixed at \$0.75/mbtu until 2011, which is currently being reviewed after which we expect prices to be increased to \$1.25-1.50/mbtu. For some proposed petrochemical projects with existing contracts with Aramco, ethane prices will remain fixed at \$0.75/mbtu even if the Ministry increases prices.

Unlike Qatar, Saudi Arabia's propane, butane and naphtha pricing is typically at a 30% discount to international prices

Propane, Butane and Naphtha: The gas liquids pricing mechanism is set under a directive of The Supreme Council for Petrol and Minerals, and is adjusted to reflect a price as a function of Arabian Gulf naphtha multiplied by a conversion factor. The naphtha price is calculated based on published naphtha prices (average of Platt's and Argus) for product delivered to Japan less current freight rates published by the London Tanker Broker panel, as shown in the formula below. The conversion factor increases each year until 2011. The conversion factor versus time is shown in the table below.

Domestic (NGL) feedstock price = product factor x (naphtha C&F Japan – freight)

Propane, butane and naphtha product factors

Year Beginning	Propane factor	Butane factor	Naphtha factor
01-Jan-02	0.621	0.655	0.658
01-Jan-03	0.632	0.660	0.666
01-Jan-04	0.643	0.665	0.674
01-Jan-05	0.654	0.670	0.682
01-Jan-06	0.665	0.675	0.690
01-Jan-07	0.676	0.680	0.698
01-Jan-08	0.687	0.685	0.706
01-Jan-09	0.698	0.690	0.714
01-Jan-10	0.709	0.695	0.722
01-Jan-11	0.720	0.700	0.730

Source: CMAI

It is not clear how the pricing will change from 2011, although the possible scenarios according to CMAI are detailed below:

- The conversion factor will be held constant, equivalent to that of 2011;
- The conversion factor will be removed and propane price will increase to full export parity; and
- The conversion factor will continue to rise modestly in line with the increases seen between 2002 and 2011.

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Mentioned Company	Ticker	Price	Price Date	Stock / Sector Rating
Dana Gas	DANA.AD	AED 0.59	18 Feb 2009	Buy / Not Rated
Industries Qatar	IQCD.QA	QR 69.5	18 Feb 2009	Neutral / Not Rated
Ma'aden	1211.SE	SAR 12.3	18 Feb 2009	Neutral / Not Rated
Petro Rabigh	2380.SE	SAR 21.0	18 Feb 2009	Neutral / Not Rated
QEWC	QEWC.QA	QR 78.8	18 Feb 2009	Buy / Not Rated
SABIC	2010.SE	SAR 45.9	18 Feb 2009	Neutral / Not Rated
Saudi Electricity Company	5110.SE	SAR 9.5	18 Feb 2009	Buy / Not Rated
TABREED	TABR.DU	AED 0.54	18 Feb 2009	Buy / Not Rated
TAQA	TAQA.AD	AED 1.12	18 Feb 2009	Buy / Not Rated

All share prices mentioned are closing prices unless otherwise stated.

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As at 06 January 2009.

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The rating system is a relative system indicating expected performance against a specific benchmark identified for each individual stock. Analysts may also indicate absolute upside to price target defined as (fair value - current price)/current price, subject to limited management discretion. In most cases, the fair value will equal the analyst's assessment of the current intrinsic fair value of the stock using an appropriate valuation methodology such as discounted cash flow or multiple analysis, etc.

Stocks:

- A rating of "1", or "**Buy**", indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months.
- A rating of "2", or "**Neutral**", indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months.
- A rating of "3", or "**Reduce**", indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months.
- A rating of "**RS-Rating Suspended**" indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the company.

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A "**Bearish**" stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months.

Benchmarks are as follows: **United States:** S&P 500; **Europe:** Dow Jones STOXX® 600; **Global Emerging Markets (ex-Asia):** MSCI Emerging Markets ex-Asia.

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Stocks:

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- A rating of "1", or "**Buy**" recommendation indicates that potential upside is 15% or more.
- A rating of "2", or "**Neutral**" recommendation indicates that potential upside is less than 15% or downside is less than 5%.
- A rating of "3", or "**Reduce**" recommendation indicates that potential downside is 5% or more.
- A rating of "RS" or "**Rating Suspended**" indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the subject company.
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Stocks:

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- A rating of "2", or "**Buy**", indicates that the analyst expects the stock to outperform the Benchmark by 5% or more but less than 15% over the next six months.
- A rating of "3", or "**Neutral**", indicates that the analyst expects the stock to either outperform or underperform the Benchmark by less than 5% over the next six months.
- A rating of "4", or "**Reduce**", indicates that the analyst expects the stock to underperform the Benchmark by 5% or more but less than 15% over the next six months.
- A rating of "5", or "**Sell**", indicates that the analyst expects the stock to underperform the Benchmark by 15% or more over the next six months.
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A "**Neutral**" stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next six months.

A "**Bearish**" stance, indicates that the analyst expects the sector to underperform the Benchmark during the next six months.

Benchmarks are as follows: **Japan**: TOPIX; **United States**: S&P 500, MSCI World Technology Hardware & Equipment; **Europe**, by sector — *Hardware/Semiconductors*: FTSE W Europe IT Hardware; *Telecoms*: FTSE W Europe Business Services; *Business Services*: FTSE W Europe; *Auto & Components*: FTSE W Europe Auto & Parts; *Communications equipment*: FTSE W Europe IT Hardware; **Ecology Focus**: Bloomberg World Energy Alternate Sources; **Global Emerging Markets**: MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published prior to 30 October 2008:

Stocks:

Stock recommendations are based on absolute valuation upside (downside), which is defined as $(\text{Fair Value} - \text{Current Price}) / \text{Current Price}$, subject to limited management discretion. In most cases, the Fair Value will equal the analyst's assessment of the current intrinsic fair value of the stock using an appropriate valuation methodology such as Discounted Cash Flow or Multiple analysis etc. However, if the analyst doesn't think the market will revalue the stock over the specified time horizon due to a lack of events or catalysts, then the fair value may differ from the intrinsic fair value. In most cases, therefore, our recommendation is an assessment of the difference between current market price and our estimate of current intrinsic fair value. Recommendations are set with a 6-12 month horizon unless specified otherwise. Accordingly, within this horizon, price volatility may cause the actual upside or downside based on the prevailing market price to differ from the upside or downside implied by the recommendation.

- A rating of "1", or "**Strong buy**" recommendation indicates that upside is more than 20%.
- A rating of "2", or "**Buy**" recommendation indicates that upside is between 10% and 20%.
- A rating of "3", or "**Neutral**" recommendation indicates that upside or downside is less than 10%.
- A rating of "4", or "**Reduce**" recommendation indicates that downside is between 10% and 20%.
- A rating of "5", or "**Sell**" recommendation indicates that downside is more than 20%.

Sectors:

A "**Bullish**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a positive absolute recommendation.

A "**Neutral**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a neutral absolute recommendation.

A "**Bearish**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

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Price targets, if discussed, reflect in part the analyst's estimates for the company's earnings. The achievement of any price target may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimate

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