

SAFCO

Impressive fundamentals, shame about the valuation;
initiating at Neutral

Neutral

Target price (SAR)	230.00
Share price (SAR)	213.50
Potential total return (%)	7.7

Dec	2007a	2008e	2009e
HSBC EPS	11.04	19.60	25.40
HSBC PE	19.3	10.9	8.4
Performance	1M	3M	12M
Absolute (%)	-16.3	-8.9	94.8
Relative ^a (%)	-7.0	8.9	88.2

- ▶ **Virtual pure-play, urea-based fertilizer company. We expect fundamentals to remain strong over the medium to long term**
- ▶ **At the current price, SAFCO shares are fair to overvalued on a variety of different valuation metrics**
- ▶ **We are initiating coverage of SAFCO shares with a 12-month target price of SAR230 and a Neutral rating**

SAFCO is primarily a producer of nitrogenous fertilizers, generating around 97% of its revenues from ammonia and urea. While the company also produces melamine and sulphuric acid and, for an interim period commencing in 2009, will produce methanol, the main driver of profitability is urea. While the drivers of robust demand growth in each of its product areas are different – ranging from biofuels and grain shortages to domestic construction (in the steel business, which should come onstream in 2013) – we believe that each of the product areas that SAFCO operates in is facing peak or near-peak conditions through 2008-2009.

We believe fertilizer fundamentals will remain very healthy in the medium to longer term but view SAFCO's current share price as being fairly valued. For clients looking for exposure to Middle Eastern fertilizer names, we would recommend Overweight-rated Industries Qatar as our preferred name; for those looking for chemical exposure in the region, we would point to Overweight-rated SABIC.

Urea prices are now linked to crude oil prices, as India, a naphtha-based urea producer at current energy prices, is the marginal producer and hence the price-setter. High energy prices bode well for low-cost urea producers like SAFCO that have fixed-cost economics, sourcing their natural gas at USD0.75/mmBtu. Regardless of one's view of long-term energy prices, both SABIC and IQ shares are far cheaper than SAFCO. Even if we were to assume USD100 per bbl in long-term crude oil prices, SAFCO would still be fairly valued at current levels. When comparing SAFCO to its peer group, the stock looks fair to overvalued on both price to earnings and EV to EBITDA. SAFCO currently trades at a 34% premium to its peer group's mean 2010e price-to-earnings and a 94% premium to its peer group's mean EV to EBITDA, which we believe is excessive.

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(USA) IncDisclaimer &
Disclosures

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, which forms part of it

Index ^a	SASEIDX
Index level	8,188
RIC	2020.SE
Bloomberg	SAFCO AB

Source: HSBC

Free float (%)	100
Market cap (USDm)	14,232
Market cap (SARm)	53,375

Source: HSBC

Global chemicals valuation summary

	AL ¹	APD	BRKM5 ²	CE	DD	DOW	GGC	HUN	IQCD ³	LIN ¹	MEOH	NCX	PX	SAFCO ⁴	SABIC ⁴	WLK
Current price (as of 8/14/08)	82	90	13	39	45	35	3	14	180	86	27	27	89	214	119	21
Ratings: (V) = Volatile	N	N	O (V)	O	O	O	U (V)	U	O	O	O	N	N	N	O	U
Target price	100	110	23	55	55	55	2	9	210	120	35	25	100	230	210	11
Target price set on	6/2/08	6/2/08	9/17/07	5/12/08	11/27/06	3/20/07	7/14/08	7/14/08	4/28/08	6/2/08	10/15/07	4/14/08	12/10/07	8/18/08	4/14/08	7/14/08
Upside/(down) to target price	21%	22%	75%	42%	22%	58%	-41%	-38%	17%	40%	32%	-7%	12%	8%	77%	-47%
HSBC normal valuation																
Trend EPS	NA	4.90	1.45	1.75	2.89	2.59	1.74	0.93	NA	NA	2.41	2.25	4.25	NA	NA	1.53
Trend relative PE	NA	1.21	0.90	1.05	0.98	1.11	0.81	0.90	NA	NA	0.81	0.81	1.31	NA	NA	0.81
Normal S&P 500 PE	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
Normal value	NA	105	23	33	50	51	25	15	NA	NA	35	32	99	NA	NA	22
Upside/(downside)	NA	17%	77%	-16%	11%	47%	636%	3%	NA	NA	31%	21%	11%	NA	NA	6%
1 standard deviation	NA	NA	41%	45%	17%	40%	50%	41%	NA	NA	50%	50%	NA	NA	NA	50%
Peak PE (1 year prior to 88 peak)	NA	NA	NA	NA	8.4	7.1	4.1	4.8	NA	NA	NA	4.1	NA	NA	NA	4.1
Peak PE (1 year prior to 95 peak)	NA	NA	NA	8.0	24.1	7.9	8.2	5.3	NA	NA	5.9	8.2	NA	NA	NA	8.2
HSBC floor valuation																
Floor valuation	NA	NA	14	18	42	31	13	9	NA	NA	17	16	NA	NA	NA	11
Upside/(downside) to floor	NA	NA	4%	-54%	-8%	-12%	268%	-39%	NA	NA	-35%	-40%	NA	NA	NA	-47%
Recent low	NA	NA	10.01	14	36	25	11	17	NA	NA	1	16	NA	NA	NA	15
Timing of recent low	NA	NA	Jul-07	Apr-05	Sep-02	Sep-00	Oct-07	Jun-06	NA	NA	Apr-00	Oct-01	NA	NA	NA	Aug-04
HSBC peak valuation																
HSBC EPS 2008	4.75	5.05	1.00	4.00	3.50	3.15	(3.00)	0.45	13.50	5.50	2.70	2.85	4.25	19.6	9.70	0.90
Implied peak valuation - 87 PE	NA	NA	NA	NA	29	22	NA	2	NA	NA	NA	12	NA	NA	NA	4
Implied peak valuation - 94 PE	NA	NA	NA	32	84	25	NA	2	NA	NA	16	23	NA	NA	NA	7
Upside/(down) to 88 peak val	NA	NA	NA	NA	-35%	-36%	NA	-85%	NA	NA	NA	-56%	NA	NA	NA	-82%
Upside/(down) to 95 peak val	NA	NA	NA	-17%	86%	-29%	NA	-83%	NA	NA	-40%	-13%	NA	NA	NA	-65%
Consensus implied peak val																
Consensus EPS 2008	4.74	5.12	0.97	3.93	3.53	3.10	(2.73)	0.44	13.46	5.44	2.53	3.04	4.29	14.47	9.72	1.02
Implied peak valuation - 87 PE		NA	NA	NA	30	22	NA	2	NA		NA	12	NA	NA	NA	4
Implied peak valuation - 94 PE		NA	NA	31	85	24	NA	2	NA		15	25	NA	NA	NA	8
Upside/(down) to 88 peak val		NA	NA	NA	-34%	-37%	NA	-85%	NA		NA	-54%	NA	NA	NA	-80%
Upside/(down) to 95 peak val		NA	NA	-19%	88%	-30%	NA	-84%	NA		-44%	-7%	NA	NA	NA	-60%
HSBC DCF valuation																
DCF	100	110	24	29	51	44	18	22	190	120	35	34	100	204	225	20
Upside/(downside)	21%	22%	84%	-25%	12%	25%	416%	53%	6%	40%	30%	28%	12%	-4%	89%	-5%

Source: HSBC, Factset
¹ In EUR, ² In BRL, ³ In QAR, ⁴ In SAR

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Investment thesis

SAFCO: A pure play on nitrogenous fertilizers

Saudi Arabian Fertilizer Company (SAFCO) is primarily a producer of nitrogenous fertilizers, generating around 97% of its revenues from ammonia and urea. While the company also produces melamine and sulphuric acid and for an interim period commencing in 2009 will produce methanol, the main driver of profitability is urea – see chart at the bottom of the page.

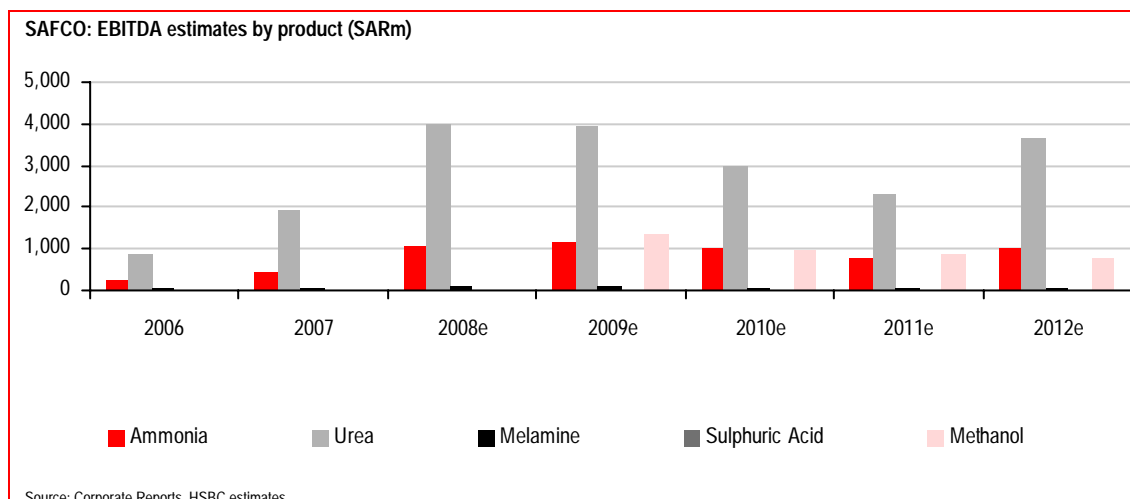
While the drivers of robust demand growth in each of its product areas are different – ranging from biofuels and grain shortages to domestic construction (in the steel business, which should come onstream in 2013) – we believe that each of the product areas that SAFCO operates in is facing peak or near-peak conditions through 2008-2009. We do, however, see a cyclical dip over the next five years. As the chart at the bottom of the page

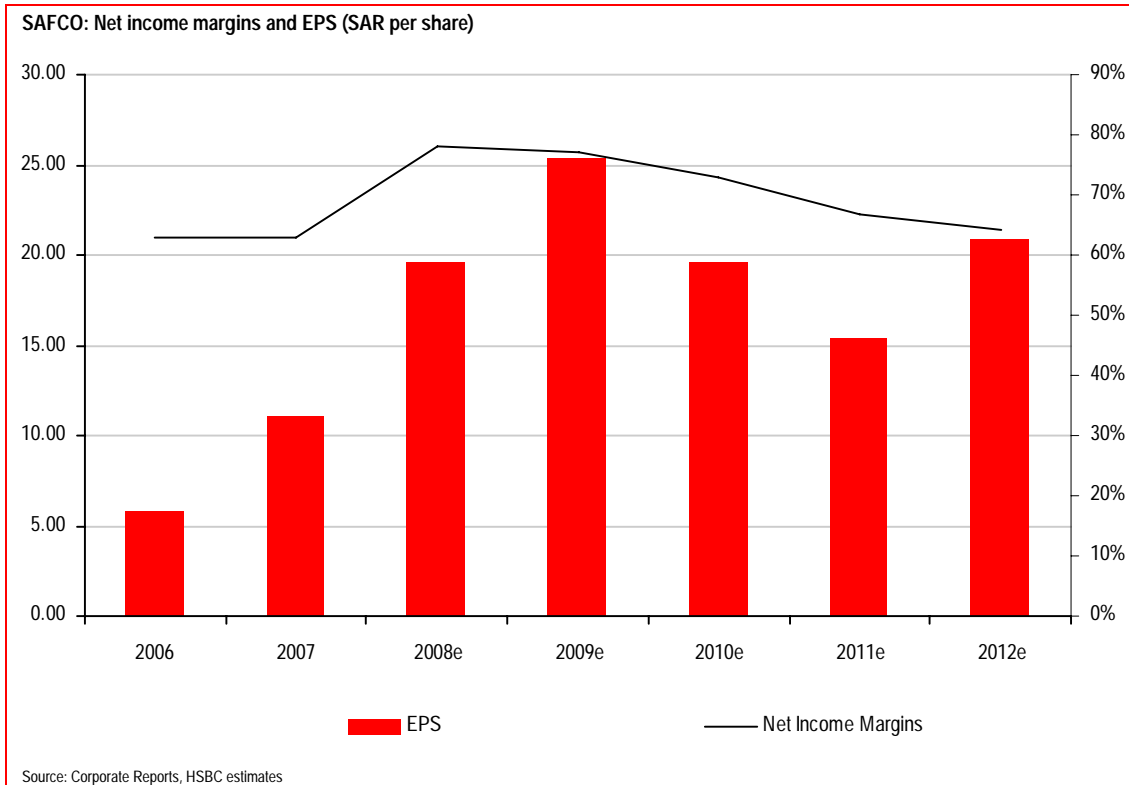
shows, we are forecasting declining EBITDA for SAFCO over the period 2009-2011, primarily driven by easing energy prices.

While we believe fertilizer fundamentals will remain very healthy in the medium to longer term, we view the current share price as being fairly valued. For clients looking for exposure to Middle Eastern fertilizer names, we would recommend Overweight-rated Industries Qatar (IQ) as our preferred name, and for those looking for chemical exposure in the region we would point to Overweight-rated SABIC.

Profitability profile driven by sustainable cost advantage

SAFCO has averaged net income margins of 62.9% over the last two years. While some of this is undoubtedly due to the tax structure, the fact remains that this profitability profile is unmatched in most industries, let alone the chemical sector,





where 10-12% margins are considered healthy. SAFCO's profitability profile is even superior to that of Industries Qatar – a company with a similar cost advantage – the reason being that SAFCO is a pure play on fertilizers.

The driver of this profitability profile for the company is its cost-advantaged feedstock supply arrangements, where the company procures its natural gas for around USD0.75 per mmBtu versus current global natural gas prices in the USD12-13 per mmBtu range.

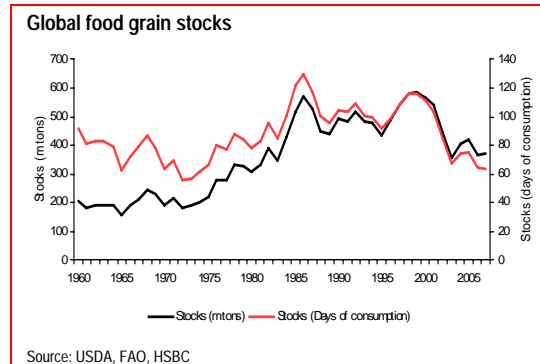
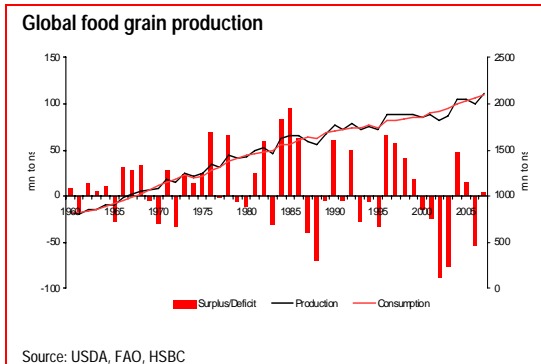
Strong global fertilizer outlook

Among SAFCO's product areas, we are most bullish on the medium- to longer-term demand outlook for nitrogenous fertilizers – ammonia and urea.

The global demand picture for food grains looks especially strong, with the United Nations expecting demand to grow at 1.6% through 2020, on the back of a growing global population and

increased urbanization. With the supply of arable land for cultivation expected to remain broadly fixed, the growth in demand needs to be met by increased agricultural productivity – better farming methods and enhanced use of agricultural inputs such as seeds, crop protection chemicals, and most important, fertilizers. While 2007 global food grain production at 2.1bn tons was the third-highest production volume ever recorded, it still only just equalled consumption and left food grain stocks unchanged.

With food grain deficits in six of the last eight years, grain stocks as a percentage of consumption are currently at their lowest level in 30 years. The outlook for food grains is also influenced by strong consumption from rapidly developing countries such as China and India, with steady increases in population and continued strong economic growth contributing to increased demand for food grains and a rapid increase in grain prices. The rule of thumb, per the Earth



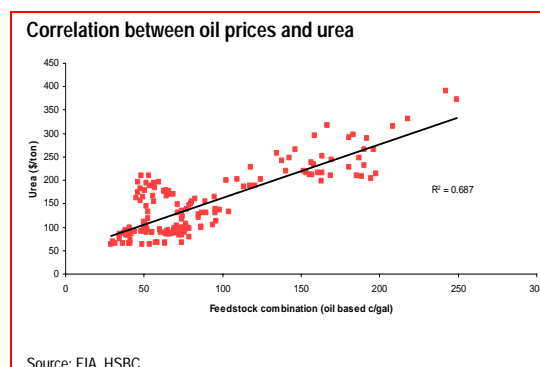
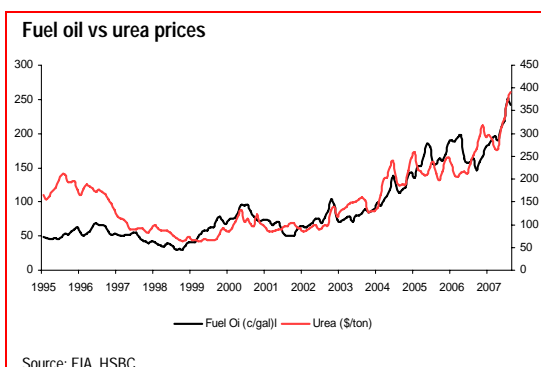
Policy Institute, is that grain stocks levels at less than 60 days of consumption are a signal for an increase in food grain prices.

The combination of demographic-driven strong global consumption demand, low food stocks, and constraints on arable land is likely to place pressure on food resources and increase demand for yield-enhancing measures. The pressure that food grain production constraints will place on prices should incentivize farmers to increase their spending on better seeds and fertilizers.

We believe that global population growth demographics point to a multi-year cyclical peak in terms of food grain demand, which cannot be met by increasing cultivation alone given the finite amount of arable land. With low levels of global food grain stocks underpinning growth in food grain prices, the use of fertilizers to supplement grain production is likely to see a sustained period of growth, in our opinion.

The surge in US ethanol demand is another factor driving global fertilizer demand. The effects of corn being diverted to ethanol production in the US are not limited to that country alone, with the ripple effects influencing grain consumption and trade patterns across the world. The US is the largest producer of corn in the world – accounting for about 45% of global production and over 70% of global exports – and a diversion in the corn crop to ethanol impacts planting patterns and grain prices and, consequently, fertilizer demand globally.

The main driver of global urea prices over the last couple of years has not been natural gas, but crude oil. This linkage of feedstock costs and crude oil prices – illustrated in the charts below – is the primary reason why the marginal ton of production has moved away from the US and to Western Europe and India. While average natural gas prices have actually declined 15% since 2005, crude oil prices, on the other hand, have jumped



over 60% in the same period, dramatically changing the picture in terms of production costs, and driving urea prices higher in a bid to support the cost of production for the marginal producers.

Given the backdrop of strong demand growth underpinned by low grain stocks, higher food demand, and biofuels, we believe that low cost producers such as SAFCO will continue to generate very strong earnings over the next few years.

The inevitable question: Invest in SAFCO, SABIC, or IQ?

When considering an investment decision in SAFCO, SABIC, or IQ, three factors need to be considered, in our opinion:

(1) Natural gas supply. Both Qatar and Saudi Arabia have abundant supply of natural gas. Qatar has the third-largest proven natural gas reserves in the world, estimated at 911 tcf, while Saudi Arabia has the fourth largest, estimated at 240 tcf. However, 57% of Saudi Arabia's proven natural gas reserves are associated natural gas, which is reliant on oil drilling. According to industry sources, once the current wave of chemical capacity additions in Saudi Arabia reaches completion in 2012, there should be just enough gas to support, at most, two new greenfield ethylene crackers. With that in mind, there are valid concerns around the sustainability of the current low natural gas price regime in the Kingdom.

While we do not expect natural gas prices in Saudi Arabia to approach parity with global prices any time soon, we also do not expect longer-term natural gas prices to stay at current USD0.75 per mmBtu levels. This creates some uncertainty regarding the longer-term cost structure for both SAFCO and SABIC. That said, IQ has a 25-year contract in place with Qatar Petroleum (QP), which expires in 2019 and which guarantees

natural gas supply at USD1.25 per mmBtu to IQ. From an investment perspective, IQ's contract with QP provides a degree of comfort around the sustainability of IQ's attractive cost structure.

(2) Product diversification. SAFCO generates around 97% of its revenues from nitrogenous fertilizers compared to around 37% for IQ and less than 5% for SABIC. Both SABIC and IQ are far more diversified companies from a revenue perspective. As stated earlier, while we expect the fertilizer industry to show strong growth in the medium to longer term, any downside in the market place would leave SAFCO far more exposed to the downside than both IQ and SABIC.

(3) Valuation. We have consistently made the case that when investing in Middle Eastern chemical companies, one is essentially investing in energy derivatives. Said differently, we believe if one invests in Middle Eastern chemical companies, one is investing in companies that procure their natural gas at USD0.75-1.25 per mmBtu, process that gas into chemicals, and sell those chemicals at global market prices, which are set in line with global energy prices (currently USD9 per mmBtu for natural gas). In doing so, the Middle Eastern chemical companies capture the spread between ambient global natural gas prices and those prevailing in the Middle East.

Based on this dynamic, our preferred valuation methodology for Middle Eastern chemical companies is a two-step process, where we evaluate the replacement value of a company and layer on a feedstock cost advantage DCF valuation. Thus, our valuation for these companies becomes sensitive to long-term energy price forecasts.

In the chart at the bottom of the next page, we provide upside/downside to valuation generated by this methodology using two different long-

term energy price forecasts – USD90 per bbl and USD120 per bbl. As is clear from the chart, regardless of one’s view of long-term energy prices, both SABIC and IQ are far cheaper than SAFCO. Even if we were to assume USD100 per bbl in long-term crude oil prices, SAFCO would still be fairly valued at current levels.

Valuation summary

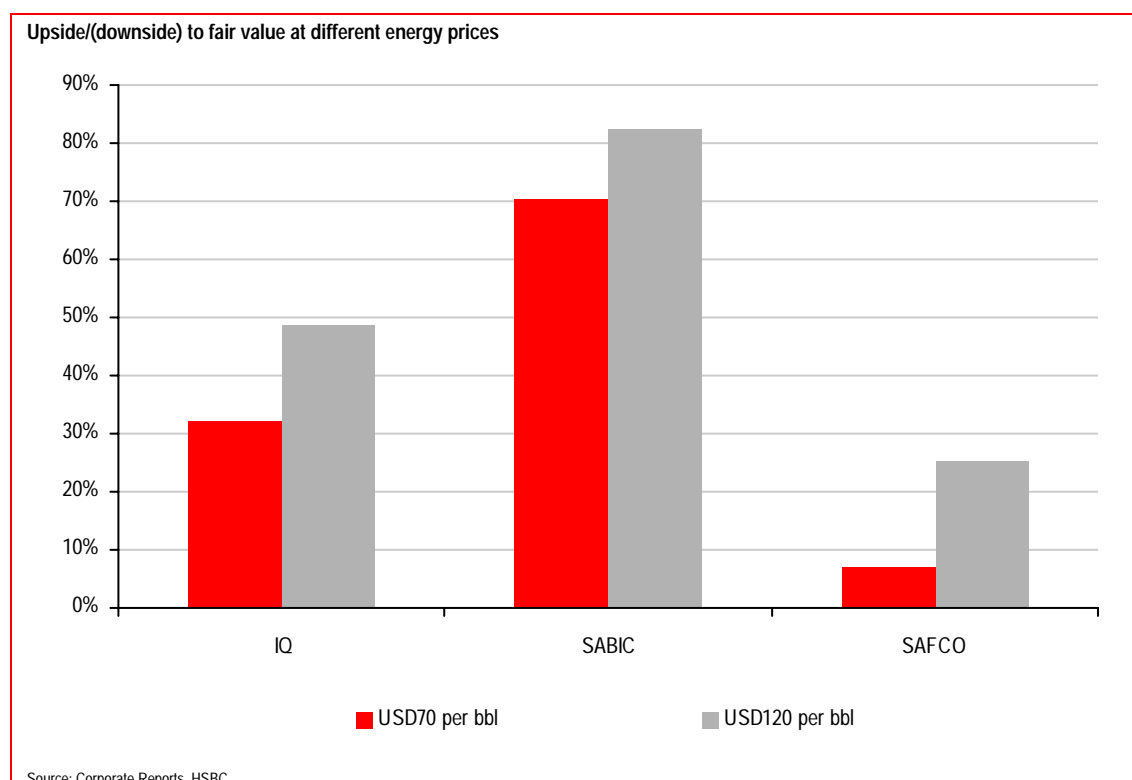
Replacement value analysis

We base our target price on a replacement value approach. For our replacement value analysis, we define replacement value as the cost associated with setting up a greenfield world-scale facility to produce a particular chemical product. Using production capacities and our estimate of costs associated with building greenfield facilities for the various products in SAFCO’s portfolio, we arrive at a replacement value for SAFCO.

We arrive at our target price for SAFCO shares via a two-step process. First, on a bottom-up

basis, we evaluate the replacement value for each product within SAFCO’s portfolio, which totals SAR21.8bn, or SAR87 per share. This analysis, however, is incomplete without layering on the value of SAFCO’s feedstock advantage. In the second step of our replacement value analysis, we carry out a DCF around SAFCO’s feedstock advantage.

Using this data on cost-advantaged raw material consumption and price, and comparing them to the costs of feedstock for marginal producers, we come up with a value for the feedstock advantage in a given year. Performing a discounted cash flow analysis around this advantage helps us to arrive at a valuation for this cost advantage. We estimate that this advantage is worth SAR35.6bn, or SAR142 per share. Adding the replacement value to the feedstock advantage value gives us our base-case replacement valuation for SAFCO, which is SAR230 per share, our 12-month target price. Our replacement value methodology is



described in more detail in the valuation section of this report.

Multiple-based analysis

SAFCO is essentially a single-product company currently generating 97% of its revenues from fertilizers – urea and ammonia. In our multiple-based valuation analysis approach, we analyze valuation based on both price-to-earnings and EV-to-EBITDA multiples.

The major shortcoming of a multiple-based analysis often lies in that there is no such thing as a perfect peer. This is all the more true in the case of SAFCO, which is unique in terms of its profitability profile, with average EBITDA margins of 67% over the last two years, versus the peer group average of 25%.

The table at the bottom of the page details our multiple-based analysis for SAFCO using a diverse group of fertilizer companies as a peer group. As is clear from the table, the stock looks overvalued based on both metrics. SAFCO currently trades at a 34% premium to its peer groups mean 2010e price-to-earnings and a 94% premium to its peer groups mean EV-to-EBITDA which we believe is excessive.

Under our research model, for non-volatile stocks, the Neutral band is five percentage points above and below the hurdle rate for Saudi stocks of 9.5%. Our target price of SAR230 indicates a potential total return of 7.7%, within the Neutral band of our model; therefore, we initiate coverage of SAFCO stock with a Neutral rating.

Risks summary

Energy price correction

The biggest upside risk to our Neutral rating on SAFCO is a run-up in energy prices. We are building in longer-term crude oil price forecasts of about USD70 per bbl and running our earnings models off of that estimate. The cost structure for the marginal producers of urea-based fertilizers is linked to crude oil, with global prices for these products reflecting medium- to longer-term movements in the oil price. For producers such as SAFCO, whose feedstock is based on fixed-price gas, a higher price of crude implies that the cost differential goes straight through to the benefit of its margins.

On the flipside, even if we were to assume USD120/bbl in long-term crude oil prices, we still do not see any upside to valuation from current levels.

SAFCO: Multiple-based valuation (USDm)

Peer companies	PE		EV/EBITDA	
	2009e	2010e	2009e	2010e
Yara International	6.91	7.00	5.38	6.62
Mosaic	8.95	7.50	5.91	4.73
Agrium	7.82	8.40	4.64	4.87
Terra	10.13	9.38	4.38	4.12
Israel Chemical	6.71	6.20	5.59	5.21
PotashCorp	9.34	9.89	6.26	5.61
CF Industries	7.57	8.58	4.17	3.46
Mean	8.20	8.14	5.19	4.94
Premium/discount	0.0%	0.0%	0.0%	0.0%
Implied multiple	8.20	8.14	5.19	4.94
EPS or EBITDA	25.40	19.55	6,535	5,028
Implied price per share	208.4	159.0	148.6	120.3
Current share price	213.5	213.5	213.5	213.5
Current implied PE or EV/EBITDA	8.41	10.92	7.67	9.58
Upside potential	-2.4%	-25.5%	-30.4%	-43.6%

Source: Corporate Reports, HSBC

Cyclicality

All the products that SAFCO produces are commodity products, whose earnings are inherently cyclical and driven by industry operating rates and supply/demand fundamentals. While we would argue that the cycle for each product is different – ranging from food supply to construction demand – and inherently provides a degree of offset, there is no denying that earnings are linked to global GDP growth.

An uptick in global GDP growth, notably in China, which has formed a major engine of the global demand story over the last few years, represents a key upside risk for the company.

Gas supply for further expansion

There is much chatter in Saudi Arabia relating to possible natural gas shortages once the current wave of capacity additions is completed by 2011-2012. To that end, SAFCO's planned capacity addition (SAFCO-V), aimed at adding 1.2m tons of ammonia and 1.5m tons of urea production annually, with an expected start-up date of 2011, has been put on hold since the company has still not secured a gas supply contract.

In our model, we are assuming a 2012 start-up date for this project. If the project is delayed further or in a worst-case scenario, canceled, this could provide further downside to our valuation. If the project is delayed further or in a worst-case scenario, canceled, this could shave off as much as SAR58 per share from our fair valuation of SAR230 (see sensitivity tables in the valuation section for more details).

Better-than-consensus results

Consistent with our view that SAFCO's main products – ammonia and urea – should see strong fundamentals for the medium to long term, we have above-consensus EPS estimates for 2008 and 2009, at SAR19.60 and SAR25.40, respectively (versus consensus estimates of SAR17.04 and SAR16.03, respectively). Momentum investors may give credit to any potential earnings beat relative to consensus sending the stock price higher, despite our view of the stock being fairly valued at current levels.

Competitive landscape

Saudi Arabia profile

Saudi Arabia occupies most of the Arabian Peninsula, with the Red Sea and the Gulf of Aqaba to the west, and the Persian Gulf to the east. Neighboring countries are Jordan, Iraq, Kuwait, Qatar, the United Arab Emirates, the Sultanate of Oman, Yemen, and Bahrain, connected to the Saudi mainland by a causeway. Saudi Arabia contains the world's largest continuous sand desert, the Rub Al-Khali, or Empty Quarter. Its oil region lies primarily in the eastern province along the Persian Gulf. Saudi Arabia's population as of July 2006 was estimated by the Saudi government to be about 27m, including about 6m resident foreigners. The government also estimates that almost half of the Saudi population is under the age of 20.

The Saudi economy is overwhelmingly dominated by oil. Saudi Arabia is the world's top oil producer and sits on 260bn barrels, about a quarter of the world's known oil reserves. The International Monetary Fund reported that in 2005, oil export revenues accounted for around 90% of total Saudi export earnings, 70-80% of state revenues, and 44% of the country's GDP.

Oil generates more than USD1bn per day for state-owned Saudi Aramco, the monopoly oil company. Saudi Arabia is steadily increasing its oil output to 12m barrels per day by 2009.

The Saudi economy has been witnessing a boom over the last few years on the back of the strength in global oil prices, averaging nominal GDP growth of 10.9% and real GDP growth of about 3.7% since 2001 (see table at the bottom of the page). The oil sector accounts for an estimated 44% share of Saudi Arabia's GDP, underlining the importance of the sector to the country's economy.

Saudi Arabia maintains a currency peg to the US dollar at SAR3.75 per USD. This practice of maintaining a peg to the dollar has come under increased scrutiny in recent times on account of the very strong inflationary trends in the country. Given rising inflation on the back of increased liquidity and investments, the Central Bank of Saudi Arabia is finding it increasingly difficult to cut interest rates in line with the policies of the US Federal Reserve – necessary to maintain the currency peg.

Saudi Arabia: Economic indicators

	2001	2002	2003	2004	2005	2006	2007
GDP (USDbn) at current prices	686.3	707.1	804.6	938.8	1,182.5	1,335.6	1,430.5
Real growth (%)	0.5	0.1	7.7	5.3	5.6	3.2	3.4
GDP per capita (USD)	8,285	8,306	9,197	10,453	12,843	14,132	14,739
Central government balance (% GDP)	-3.9	-2.9	4.5	11.4	18.4	21.7	12.5
Current account (USDbn)	9.4	12.0	28.1	49.3	90.0	98.9	95.0
% GDP	5.1	6.3	13.1	19.7	28.5	27.7	24.9
Exchange rate (USD)	3.75	3.75	3.75	3.75	3.75	3.75	3.75

Source: Saudi Central Bank, IMF, HSBC estimates

Hydrocarbon assets

According to the Oil and Gas Journal, Saudi Arabia contains about 260bn barrels of proven oil reserves (including 2.5bn barrels in the Saudi-Kuwaiti Divided, or Neutral Zone), or around one-fifth of proven, conventional world oil reserves. Around two-thirds of Saudi reserves are considered “light” or “extra light” grades of oil, with the rest either “medium” or “heavy.”

Although Saudi Arabia has over 100 oil and gas fields (and more than 1,500 wells), over half of its oil reserves are contained in only eight fields, including the giant 1,260sq-mile Ghawar (the world's largest oil field, with estimated remaining reserves of 70bn barrels), and Safaniya, including Khafji and Hout (the world’s largest offshore oilfield, with estimated reserves of 25-35bn barrels). Saudi Arabia maintains the world’s largest crude oil production capacity, estimated to be around 10.5-11.0m bbl/d.

Saudi Arabia also has the fourth-largest proven natural gas reserves in the world, estimated at 240trn cubic feet (tcf). Over the last decade, Saudi Aramco has added 72tcf of non-associated reserves, including the fields Mazalij, Manjura, Shaden, Niban, Tinat, Al-Waar, and Fazran in the deep Khuff, Unaizah, and Jauf reservoirs.

However, around 57% of Saudi Arabia’s proven natural gas reserves consist of associated gas at the giant onshore Ghawar field and the offshore Safaniya and Zuluf fields. The Ghawar oil field alone accounts for approximately one-third of the country’s proven natural gas reserves.

Both associated and non-associated natural gas has also been discovered in the country’s extreme northwest, at Midyan, and in the Empty Quarter (Rub al Khali) in the country’s southeastern desert. The Rub al Khali alone is believed to potentially contain natural gas reserves as high as 300tcf, although these are not proven.

Despite sizable reserves and increasing demand, natural gas production in Saudi Arabia remains limited. Highly subsidized prices and soaring costs of producing, exploring, processing, and distributing gas have squeezed supply, while limiting investment in the sector and constraining other areas of economic and industrial growth.

The situation is exacerbated by the fact that the majority of gas fields in Saudi Arabia are “associated” with petroleum deposits, or found in the same wells as crude oil, and plans to increase production in this type of gas remain linked to an increase in oil production. Most of the new natural gas discovered in the 1990s has been associated with light crude oil, especially in the Najd region south of Riyadh. For this reason, Saudi Arabia has concentrated efforts to locate non-associated gas pockets onshore and in offshore formations.

Saudi Arabia: Oil and gas reserves

Crude oil	bn bbls	Natural gas	Trillion cubic feet
Saudi Arabia	264.3	Russia	1680.0
Iran	137.5	Iran	974.0
Iraq	115.0	Qatar	910.5
Kuwait	101.5	Saudi Arabia	239.5
United Arab Emirates	97.8	United States	204.4
Qatar	15.2	UAE	198.5
Other Middle East	11.5	Nigeria	181.9
Total Middle East	742.7	Total global	6405.5

Source: BP World Statistical Handbook, EIA, Oil and Gas Journal, HSBC

Saudi Arabia: Gas development strategy

When we assess the competitive landscape for SAFCO, we believe that while one must necessarily address the competitive dynamic for the various product classes – ammonia, urea, melamine, and sulphuric acid – both globally and in the Middle East, it is also appropriate to examine the competing pulls for access to Saudi Arabia's hydrocarbon reserves from various investment alternatives.

Typically, a range of investments are available to firms looking to monetize stranded gas reserves, with petrochemical industry development through ethylene crackers and downstream units, liquefied natural gas (LNG) facilities focused on export markets, and the rapidly developing gas to liquids (GTL) technology being the most prevalent. Not all of these strategies are mutually exclusive, though, as ethane and higher natural gas liquids, which are feedstocks for producing ethylene, can be stripped from natural gas before the gas is used as LNG or as an input into GTL.

The choice of whether to go with LNG/GTL investments or petrochemical projects is as much a question of strategy as it is economics. The rates of return on LNG and GTL projects are highly sensitive to product off-take assumptions and need to build in the significantly higher capital intensity of these kinds of projects. Ethylene plants, on the other hand, are far less capital-intensive than LNG and GTL facilities, and crackers coming on stream in the Middle East are among the lowest-cost producers in the world and would be competitive over a range of energy costs.

However, ethylene crackers are more suited to associated gas finds, with non-associated gas better exploited by heavier volume uses such as LNG. This is because roughly 80% of natural gas consists of methane, which, unlike ethane, is not

used as a petrochemical feedstock. Given the sheer volume of associated gas reserves that Saudi Arabia possesses, the thrust of the country's natural gas development has been focused on petrochemicals.

According to Saudi Aramco, only 15% of Saudi Arabia has been "adequately explored for gas." To meet growing domestic needs, in November 2006, the Petroleum Ministry and Saudi Aramco announced in a USD9bn long-term strategy to add 50tcf of reserves by 2016 (an average of 5tcf per year).

In order to free up petroleum for export, all current and future gas supplies (except natural gas liquids) reportedly remain earmarked for use in domestic industrial consumption and by desalination plants. According to statements made by Aramco, the five-year plan will radically increase the rate of exploration and includes the drilling of 307 new development wells, including 67 exploratory wells primarily in non-associated offshore formations. In comparison, during the period 1996-2004, just 52 wells were drilled, with an exploration success rate of 44%. According to Aramco, exploration and development will also commence in non-producing areas such as the Red Sea and the Nafud basin, north of Riyadh.

The backbone of the non-associated gas exploration strategy relies on foreign consortiums exploring for onshore gas in the Rub al-Khali, which officials hope will produce some 2bcf/d by 2011. The South Rub al-Khali Company (SRAK), a consortium consisting of Saudi Aramco, Royal Dutch/Shell, and Total, is investing an estimated USD2bn in exploration of more than 210,000sq-km in two separate concession blocks (Blocks 5-9 and 82-85).

The concessions surround the Shaybah and Kidan oil fields, abutting Oman and the UAE, and the Saudi-Yemeni border, respectively. The

consortium aims to sell 500MMcf/d gas to the Ministry starting in 2009. SRAK drilled its first exploration well in July 2006 (Isharat-1, a wildcat) and a second is planned in early 2007, with a total of seven planned over the next 25 months.). Saudi Aramco, which replaced ConocoPhillips in the original consortium, and Total have each a 30% share in the project, while Shell holds the majority share.

In January 2004, Russia's Lukoil won a tender to explore for and produce non-associated natural gas in the Saudi Empty Quarter in Block A (29,000sq km), near Ghawar, as part of an 80:20 joint venture with Saudi Aramco, known as Luksar. Luksar drilled two wells and plans a third in 2007. Also in January 2004, China's Sinopec won a tender for gas exploration and production in Block B (38,000sq km). Sino Saudi Gas, a venture of Sinopec and Aramco, has drilled two wells and reported that there would be another two by year-end 2007. The Eni-Repsol-Aramco consortium, LENIREPSA Gas, was granted a license to operate in Block C (52,000sq km), and drilled its first well in September 2006.

The consortia have some 27 wells planned in total by 2009. The contracts cover a 40-year period, except SRAK, which holds a 25-year contract. Constraints on obtaining rigs have slowed the pace of exploration over the past year.

Outside of the Empty Quarter, recent non-associated gas finds are promising. The Karan gas field, discovered in April 2006, is the largest gas deposit yet discovered in the offshore Khuff formation, some 100 miles north of Dhahran. The first well (Karan-6) was drilled in September 2006 and a second (Karan-7) is currently underway, while Aramco continues to collect seismic data over the 6,250sq km region. Initial data show at least eight gas-bearing structures in the Khuff region around the Karan reservoir. Of those, Karan alone is expected to produce some 1Bcf/d

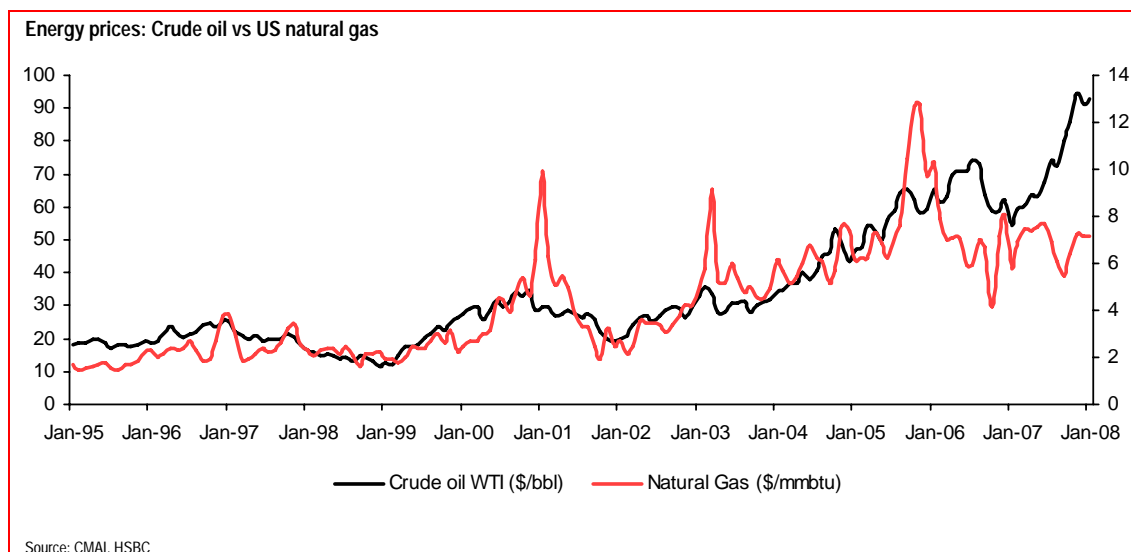
when it comes online sometime between 2009 and 2011. Development plans are underway.

Another large, non-associated offshore natural gas field, Dorra (Durra), is located offshore near Khafji oil field in the Saudi-Kuwaiti Neutral Zone. Dorra development has been controversial since the late 1960s, however, because 70% is also claimed by Iran (called Arash). In addition, the maritime border between Kuwait and Iran remains un-demarcated.

Saudi Arabia reached an agreement with Kuwait in July 2000 to share Dorra output equally, although the Kuwaitis are reportedly trying to purchase the Saudi share. According to Saudi Aramco, the field is estimated to contain non-associated gas reserves of between 35 and 60tcf of natural gas. The Kuwaiti Ministry of Oil has reported that the goal is to initially produce 600MMcf/d from Dorra. In September 2006, it was reported that Kuwait and Iran agreed to jointly develop the field, although production plans remain undisclosed.

Onshore, several discoveries have been made near the Ghawar field in the past year. According to a September 2006 statement by Minister Al-Nuaimi, the Kassab-1 test well in the Jauf reservoir could add 16.2MMcf/d when developed. Close by, the Zamlah-1 well, part of a deposit discovered in August 2006, tested at 20MMcf/d and 1,400bbl/d condensate. In addition, gas from the Najimaan-1 (Nujayman) well, also near Ghawar, flowed at a rate of 30MMcf/d, but reportedly has a potential production capacity in excess of 60MMcf/d, according to Aramco sources.

The Ghazal field, discovered in 2000, has started to produce some 270MMcf/d from 25 development wells. According to Saudi Aramco, output is expected to increase to 400MMcf/d by year end-2008. Production is also set to come onstream from the Midrikah (Madraka-3) well (27mcf/d, 932bbl/d



condensate), discovered in 2004, which lies adjacent to the Haradh field in the Eastern Province (17 miles south of Ghawar). Finds in Ghazal and Midrika will feed newly expanded South Haradh processing facilities (along with 140MMcf/d that came online at the Haradh-3 project in April 2006). Most recently, Saudi Aramco announced that approximately 120MMcf/day of associated gas will be produced from the Manifa field when it comes online in 2011.

Role of the Middle East in basic chemicals

While petrochemical investments have garnered the most attention and column inches as far as the role of the Middle East with respect commodity chemicals goes, the region has been at the forefront of capacity expansions, not just in commodity thermoplastic resins, but also in a variety of other gas-based chemicals such as fertilizers and methanol. The emergence of the Middle East as a major player in the chemical industry can be traced back to a confluence of events – the sharp rise in US natural gas prices post-2000, the more recent rise in global crude oil prices on the back of strong demand, and the continued desire of Middle Eastern states to

diversify their economies away from dependence on oil and monetize their stranded gas reserves.

The scale of influence that the Middle East has come to have on the global commodity chemical industry would not have been the same without the drastic change in the energy price environment, which started with the rise in US natural gas prices in 2000-2001. While the Middle Eastern states have had access to cheap stranded gas reserves for several decades, the rapid development of their industry was held back by the fact that the US, prior to 2000-2001, also had cheap gas. When coupled with access to scale economies, technology, and proximity to the local market, this made the US Gulf Coast one of the most competitive chemical manufacturing locations in the world and limited capacity growth in the Middle East.

However, this scenario changed once US natural gas prices skyrocketed in 2000-2001 as a wave of gas-based power plants started to come onstream, providing an alternate use for the gas and bidding up prices. Gas prices in the US have remained stubbornly high ever since, and it is widely acknowledged that a gas price regime in the USD6-8 per mmbtu is here to stay – a far cry for historical levels of USD1-2 per mmbtu.

Role of the Middle East in basic chemicals

Product	Middle East share of global capacity		Share of capacity growth 2007-2012e
	2007	2012e	
Ethylene	11.5%	21.2%	56.4%
LLDPE	13.2%	18.3%	33.5%
LDPE	6.2%	17.3%	73.8%
HDPE	12.0%	22.0%	49.8%
Propylene	4.5%	11.1%	34.6%
Polypropylene	6.1%	12.9%	30.4%
Ammonia	7.3%	9.6%	22.8%
Urea	9.4%	12.3%	29.1%
Methanol	19.0%	25.0%	35.6%

Source: CMAI, SRI, HSBC estimates

In light of this new gas pricing regime in the US, several chemical industries that were large consumers of natural gas – namely the ammonia and methanol producers – became uncompetitive and started to shut down their US operations, leading to a wide-scale shift in production capacity away from the US and to regions with more competitively priced natural gas. This, in turn, led to a wave of capacity expansion plans for these products in the Middle East.

The petrochemical industry did not experience the same level of shutdowns on account of higher natural gas prices, as increasing demand from emerging economies and elevated crude oil prices allowed for higher costs to be passed onto consumers. However, while large-scale petrochemical capacity shutdowns in the US were averted, it became apparent that the region did not have a feedstock position that allowed for new capacity to be built.

A similar pattern has been visible in Europe as well, with existing producers showing an ability to pass on higher costs to consumers in a strong demand environment, but recognizing the fact that they would not have been competitive as far as adding new capacity was concerned.

Reinvestment economics for chemical projects in the current environment dictate that one must either have a rapidly growing end market to offtake product, or a guaranteed supply of low-cost feedstock – neither of which is available to

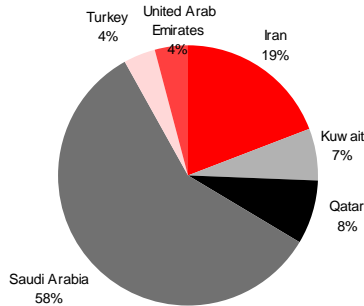
producers in the US and Europe. This effectively limits chemical expansion to the Middle East, which has a cost position that has only gotten stronger as energy prices continue to rise higher, and to China, which has a large captive market.

Given the background outlined above, the Middle East has emerged as the most important region for chemical investments globally, with exceptionally competitive feedstock positions and opportunities to export to growth markets in Asia. The region is expected to account for well over 40% of basic chemical capacity additions globally over the next five years (see table at the top of the page), with strong export positions in each of the product areas highlighted above.

Saudi Arabia's role within Middle East chemicals

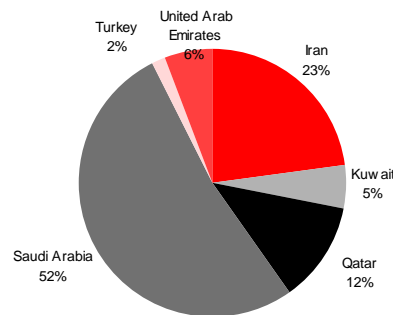
Saudi Arabia remains by far the largest producer of commodity chemicals in the Middle East in terms of capacity for basic chemicals. The charts at the top of the next page outline the region's current and forecast ethylene capacity by country. Both Saudi Arabia and Iran are substantially increasing their ethylene capacity over the next four years, with Qatar a distant third. The same is true for other basic chemicals such as ammonia, urea, methanol, and MTBE, with Qatar occupying third place behind Saudi Arabia and Iran in terms of capacity for these products.

Middle East: Ethylene capacity by country (2007)



Source: CMAI, HSBC

Middle East: Ethylene capacity by country (2012e)



Source: CMAI, HSBC

The rationale for adding capacity in all the Middle Eastern countries – namely, a low-cost feedstock position – remains the same. Per our estimates, natural gas is made available to companies in Saudi Arabia and Iran at USD0.75 per mmBtu, while in Qatar, we believe that number to be about USD1.25 per mmBtu.

This difference in feedstock costs needs to be analyzed from the perspective of a world where crude oil ranges between USD60-80 per barrel and natural gas prices are in the USD6-8 per mmBtu range. Companies producing basic chemicals within the region are not really competing among themselves for export opportunities, but are benefitting from an environment where the marginal cost of production is significantly above their cost structure – providing them with a strong pricing umbrella for their products.

SAFCO: Competitive position

While analyzing the competitive position of SAFCO, it is important to keep in mind that all of the products that SAFCO produces are global commodities, with pricing determined by global supply/demand balances and marginal cost structures.

Furthermore, while the dynamics for each product are quite different, the common thread underlying all of them – with the exception of steel – from SAFCO's perspective is the low cost of natural

gas and the resulting global low-cost position. While SAFCO's various products are at different stages of their respective commodity cycles, the company remains extremely well positioned from a cost perspective globally.

Fertilizers: Ammonia and urea

Global demand for fertilizers has been extremely strong over the last few years, driven by strong global consumption demand, low food stocks, and rising demand for biofuels, all of which are placing pressure on food resources and increasing demand for yield-enhancing measures – ranging from biotech seeds to increased use of fertilizers. Added to this strong demand backdrop, we have a situation wherein the marginal cost of ammonia and urea production is being driven by global crude oil prices. While the bulk of global urea production is based on natural gas, most producers in Europe and Asia have their costs linked to a formula based on the price of crude oil-derived products.

This link to crude in the current energy price environment translates into a significant advantage for a fixed-cost gas-based producer such as SAFCO. We estimate that as our long-term average crude oil price forecast of USD70 per bbl translates roughly into marginal urea production costs of about USD400 per ton. This compares with QAFCO's production costs of about USD85 per ton, which places SAFCO

firmly in the bottom quartile of the cost curve and bodes well for margins in the medium term.

Methanol and steel

While SAFCO does not currently produce steel, SAFCO and HADEED have signed an agreement to construct a 50:50 owned facility in Jubail Industrial City for the production of flat steel products. The company expects commercial production to commence in 2013, with an annual capacity of 1.7m metric tons. During the construction phase of the flat products facility, SAFCO reached an agreement with SABIC affiliate the Saudi Methanol Company (AR-RAZI) to make use of its steel-related natural gas allocation to produce methanol for SAFCO for an interim period, until the completion of the flat steel products project.

We expect SAFCO's cost advantage in methanol to remain strong in the medium term, with production costs averaging USD100 per ton, compared to marginal producers' averaging USD250 per ton.

Once the plant is up and running, steel production will be the one product area at SAFCO that does not have any competitive advantage in terms of cost structure. We believe SAFCO will meet all of its iron ore requirements through imports, sourced mainly from Brazil and Sweden. The steel produced by SAFCO is earmarked for domestic consumption, which we expect to remain strong. While strong domestic demand may continue to buoy pricing, we believe that the company will achieve EBITDA margin levels in the mid-20% area, in line with margins seen at Industries Qatar's QASCO segment.

Company profile

Company history

Saudi Arabian Fertilizer Company (SAFCO) is the largest fertilizer company in Saudi Arabia, with a combined ammonia/urea capacity base of 5.3m tons. The company was set up in 1965 as a joint venture between the government and the citizens of Saudi Arabia. Initially, the government held a 51% stake in the company with the remainder being held by the private sector. Over the years, the capital of the company was increased several times. As it stands today, SABIC owns a 43% stake in the company, with the remaining stake being held by the private sector.

The company started commercial production of ammonia and urea in 1970 with the start-up of a 202,000 ton ammonia and 330,000 ton urea facility. In 1979, SAFCO started up a 100,000 ton sulphuric acid facility primarily set up to meet Saudi Arabia's desalination needs. By 1983, the company had diversified into melamine

production as well, with the start-up of a 20,000 ton facility. Between 1993 and 2006, SAFCO expanded its production base by adding seven factories in Jubail Industrial City with a capacity of 2.3m tons of urea and 2.1m tons of ammonia.

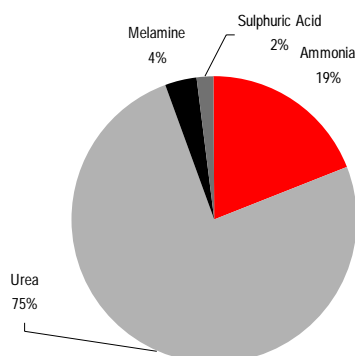
Revenue mix

The charts at the bottom of the page break out SAFCO's revenues and EBITDA by product, making it clear that the company is virtually a pure play on nitrogenous fertilizers. The company is also well diversified in terms of its sales exposure by geography, with the bulk of its production earmarked for international sale (see table overleaf).

Capacity expansion plans

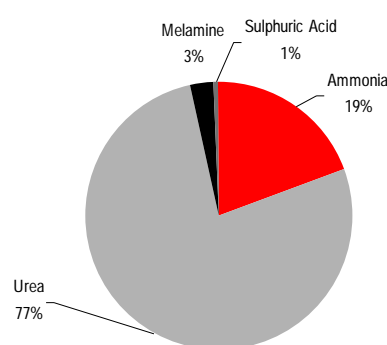
In 1993, SAFCO embarked on a major ammonia and urea expansion spree, which reached completion with the start-up of SAFCO IV in Q2 2007. The company is also planning a 1.2m ton ammonia and a 1.5m ton urea addition slated to come onstream in

SAFCO: Sales by product (2007)



Source: Corporate Reports, HSBC

SAFCO: EBITDA by product (2007)



Source: Corporate Reports, HSBC

SAFCO: Sales by product by geography (2007)

Regions	Urea	Ammonia	Sulphuric acid	Melamine
Asia	34%	80%		18%
North America	26%	8%		
Australia/NZ	21%	4%		
Local	13%		100%	3%
Africa	6%	8%		7%
Europe				72%

Source: Corporate Reports, HSBC

Q2 2011 (SAFCO-V). However, the company has still not attained a gas supply contract, thus delaying the expansion. In our model, we are factoring in a 2012 start-up for this facility.

Apart from ammonia and urea expansions, the only other capacity addition plans that SAFCO now has are in the steel arena. While SAFCO does not currently produce steel, SAFCO and HADEED have signed an agreement to construct a 50:50 owned facility in Jubail Industrial City for the production of flat steel products. The company expects commercial production to commence in 2013 with an annual capacity of 1.7m metric tons.

During the construction phase of the flat products facility, SAFCO reached an agreement with SABIC affiliate the Saudi Methanol Company (AR-RAZI) to make use of its steel-related natural gas allocation to produce methanol for SAFCO for an interim period, until the completion of the flat steel products project.

Joint ventures/subsidiaries

SAFCO has varying stakes in four companies:

National Fertilizer Company (Ibn Al-Baytar).

SAFCO holds a 50% stake in the company, with the remaining stake being held by SABIC. The company is a nitrogenous fertilizer producer with a production capacity of around 2.1m tons.

Arabian Industrial Fibers Company (Ibn-

Rushd). SAFCO holds a 3.7% stake in the company. The remaining stake is split between SABIC (51.7%) and 14 other private sector partners.

The company produces aromatics, terephthalic acid, and a variety of textile grade, staple grade, bottle grade, and carpet grade polyester chips. It has production capacity of around 300,000 tons.

Gulf Ferro Alloys Company (Sabayek). SAFCO holds a 5% stake in the company. The company is a producer of ferro alloys used in the metallurgical industry and has a capacity of around 200,000 tons.

Yansab. SAFCO holds a 1.7% stake in the company. SABIC holds 55% of the capital. SABIC affiliates Ibn Rushd and TAYEF hold 10%, while 33.3% is held by the private sector. The company will be fully operational by 2009 and is expected to produce over 4.6m tons of ethylene, ethylene derivatives, propylene, propylene, and propylene derivatives.

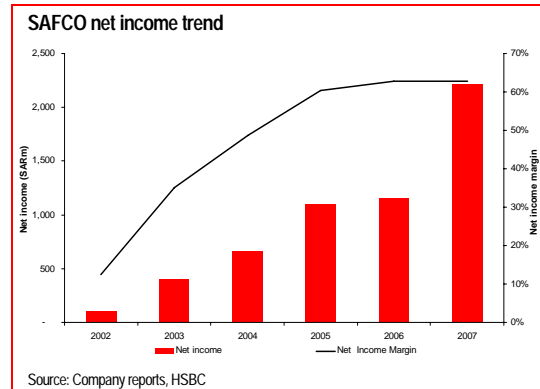
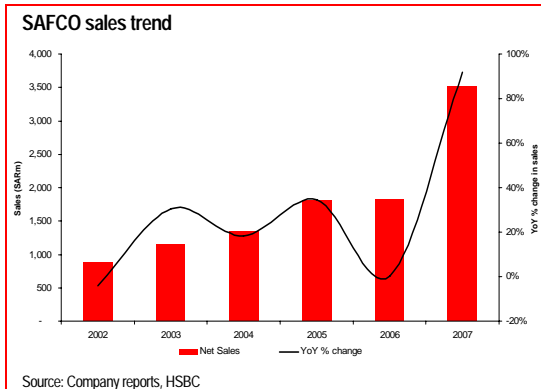
Financials gaining strength

The two charts at the top of the next page show SAFCO's sales and net income trend. SAFCO's sales have steadily increased on the back of increases in fertilizer prices since 2002. The big leap in 2007 was because of a combination of price increases and capacity addition resulting from the start-up of SAFCO IV. SAFCO increased its sales volume by 48% in 2007 with SAFCO IV coming on line.

SAFCO has witnessed a marked improvement in its net income since 2002, from SAR110m in 2002 to SAR2,209m by 2007, translating into a CAGR of 82%.

Fertilizer outages: Adding fuel to fire

As seen in the chart at the bottom of the next page, SAFCO's earnings are very tightly correlated to urea prices, which, in turn, are being driven by crude oil prices. Above and beyond high energy prices lifting the price of urea, tightness in supply/demand fundamentals clearly has played a role.

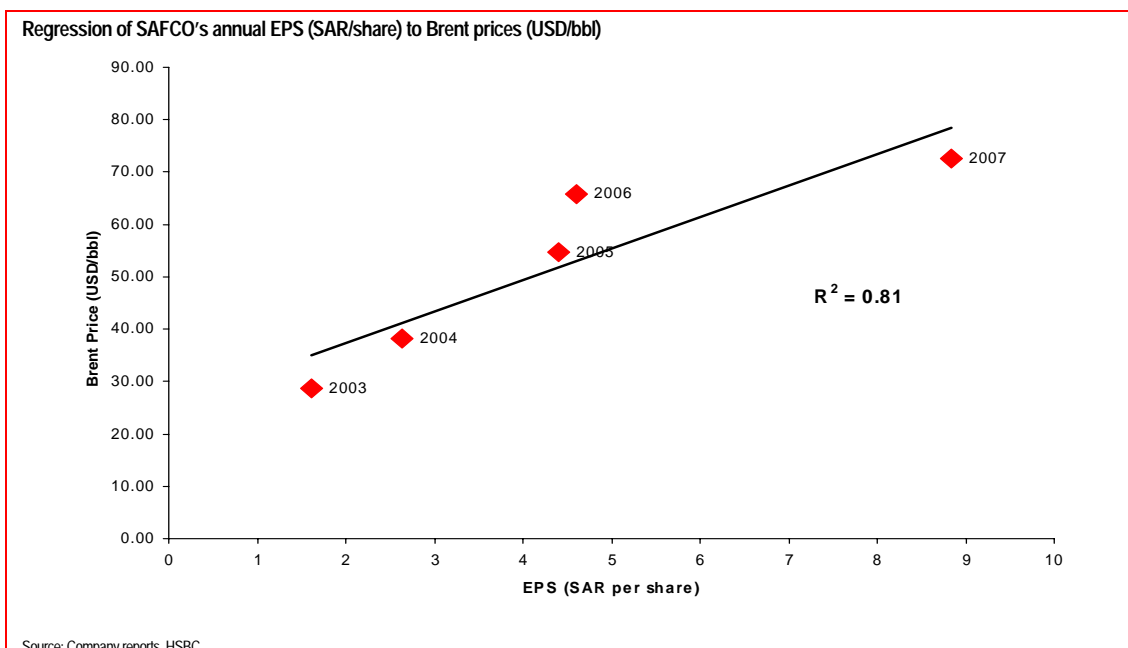


Since June 2008, the urea market has struggled with outages and tight supply. Turnarounds in Ukraine, Algeria, Libya, Australia, and Trinidad occurred simultaneously in June and July. Turnarounds and outages in Yuzhny further reduced the availability of ammonia and urea in this major trading port in the Black Sea. Besides Yuzhny, PotashCorp's ammonia plant in Trinidad went through a 60-day maintenance turnaround in May.

Urea supply/demand fundamentals in Asia got tighter after the Chinese government imposed export taxes on fertilizer trade in April. The situation deteriorated further from mid-June onwards, when Australia's Barrup Holdings Ltd said it did not

expect to restart its 760,000 ton per year plant for possibly two months after a disruption of gas supplies from Apache Energy.

Hence, in addition to surging oil prices, outages and turnarounds in the urea industry appear to have caused a sharp increase in prices. That said, once these temporary supply disruptions are resolved, we believe prices will ease a bit. This, along with any correction in oil prices, could lead to a downward correction in urea prices, in our view.



Fertilizers

A primer on fertilizers

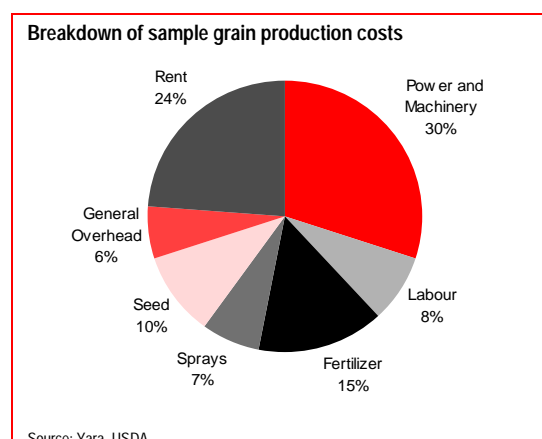
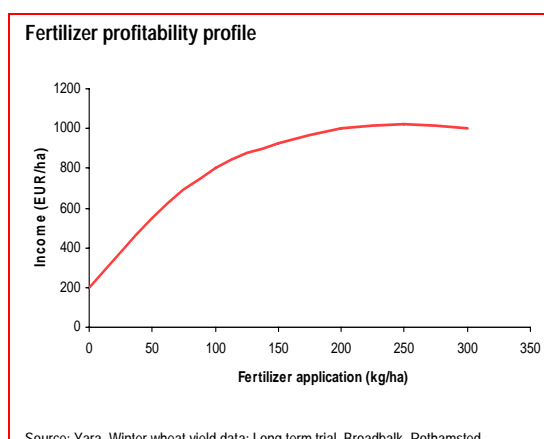
Fertilizers are primarily used to replenish soil nutrients and enhance production yields. While a number of nutrients are directly available in soil, as crops grow they absorb these nutrients, resulting in their depletion. While over time, nutrients are reabsorbed in the form of organic matter and plant residue, the replenishment rate is not rapid enough to cope with the demands of farming today.

Mineral fertilizers are used to replenish these lost nutrients while providing an optimal nutrient balance, enabling the farmer to obtain higher yields. Appropriate fertilizer use has a significant impact on average crop profitability, with the increased revenue from higher yields more than offsetting the costs of the fertilizer (see chart at the bottom of the page for a sample fertilizer profitability profile). The incentive to use fertilizers to boost yields is further enhanced by the fact that fertilizer costs typically account for a small proportion of total grain production costs.

Given the benefits and the relatively low share of production costs, farmers are, in general, not highly price sensitive to fertilizer prices.

The primary fertilizer categories are based on the most commonly required and applied nutrients – nitrogen (N), phosphorus (P), and potassium (K). Nitrogen is the main constituent of proteins and is considered essential for growth and development in plants. Supply of nitrogen determines a plant's growth and yield, and it is the most easily depleted nutrient. Phosphorus plays a vital part in root development and aids in drought resistance, while potassium is responsible for the translocation of the resulting products from photosynthesis, and aids in increasing yields and improving crop resistance to diseases.

Among the three major nutrients (N-P-K), nitrogen is far and away the most important factor as far as higher crop yields are concerned, and accounts for roughly a 60% share of total global fertilizer consumption and is generally applied annually to maintain yields (see table at the top of



Primary fertilizer characteristics

Nutrients and share	Benefit	Recommended application	Industry structure
Nitrogen N (60%)	Primary constituent of proteins, essential for growth	Annual	Fragmented
Phosphorous P (23%)	Required for root development, increases crop size	Not required annually	Fragmented, under consolidation
Potassium K (17%)	Improves crop resistance to disease and drought	Not required annually	Consolidated, production discipline

Source: Yara, Corporate Reports, HSBC

the page). Phosphorus and potassium fertilizers, on the other hand, have far lower shares of global fertilizer consumption when compared to nitrogen and are not always required to be applied annually. While each of the major nutrients has a primary fertilizer that is rich in that particular nutrient, there are also several multi-nutrient fertilizers that offer a combination of all three nutrients (see table at the bottom of the page).

Ammonia is the primary basis for all nitrogenous fertilizers on account of its high nitrogen content. While ammonia can be used directly as a fertilizer, it is more commonly processed into urea or ammonium nitrates before application. Urea is by far the largest nitrogenous fertilizer, accounting for a 52% share of total consumption.

Potash fertilizers are mainly derived from geological deposits, with the salt deposits mined for the mineral. These unrefined deposits are then refined to a concentrated form before application. The most commonly used potash-based fertilizer

is potassium chloride, also known as muriate of potash (MOP), which accounts for 71% of total potash fertilizer demand.

Similar to potash, the raw material for the production of phosphate fertilizers – rock phosphate – is also mined from ores in geological deposits. The extracted ore is then processed into phosphate-based fertilizers such as mono and di-ammonium phosphates (MAP and DAP), which together account for over 46% of all phosphate-based fertilizer demand.

Fertilizer use by crop

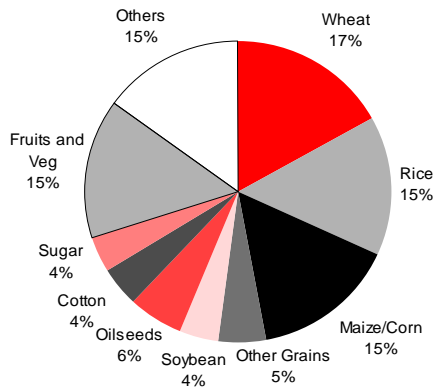
Per the International Fertilizer Industry Association (IFA), cereals represent roughly 52% of fertilizer use globally, followed by fruits and vegetables at 15% and oilseeds at 11%. Among the food grains, wheat rice and corn represent over 90% of global fertilizer use, with roughly equivalent shares of fertilizer consumption (see charts at the top of the next page).

Primary fertilizer categories

Nitrogen		Potash		Phosphate	
Urea	52%	MOP	71%	DAP/MAP	46%
UAN	5%	NPK	24%	NPK	22%
CAN	9%	Others	5%	SSP	18%
NPK	9%			TSP	6%
DAP	6%			Others	8%
Ammonia	4%				
Others	15%				
Primary nutrient composition	% N	% P2O5	% K2O		
NPK fertilizers	5 to 25	5 to 24	5 to 24		
NP fertilizers	20 to 26	6 to 34	-		
Ammonium phosphates	16 to 18	42 to 48	-		
DAP					
MAP	11	52	-		
NK fertilizers	13 to 26	-	15 to 46		
PK fertilizers	-	5 to 30	5 to 30		

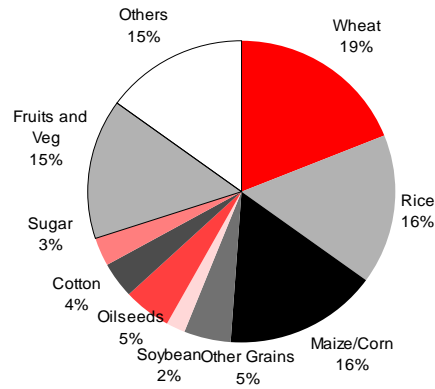
Source: EFMA, IFA

Total global fertilizer consumption by crop (2007)



Source: IFA, HSBC

Nitrogenous fertilizer consumption by crop (2007)



Source: IFA, HSBC

The share of food grains among nitrogenous fertilizers is higher, with cereals accounting for 56% of total nitrogenous fertilizer consumption worldwide. Wheat is the primary crop at 19%, while rice and corn account for roughly 16% each. The share of food grains among phosphate-based fertilizers is lower at 48%, with a higher proportion of wheat at 18%, compared to corn and rice, which each represent roughly 13% of demand.

Potash-based fertilizers rely the least on food grains for their demand, with cereals making up only 39% of their consumption. Relative to nitrogen- and phosphate-based fertilizers, potash-based fertilizers have a far greater reliance on oilseeds, sugar cane, and fruits and vegetables,

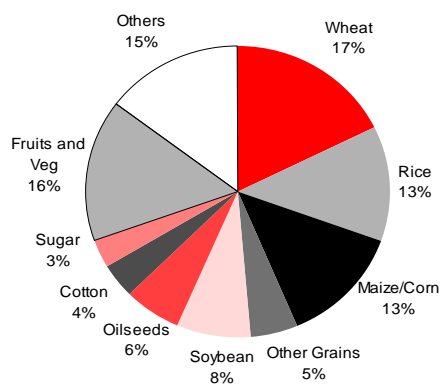
with these categories accounting for over 45% of demand (see charts at the bottom of the page).

Fertilizer demand by region

Apart from variances in fertilizer demand based on crops, there are also significant variances in demand across regions. Regional and local factors often result in significantly different fertilizer consumption patterns for the same kind of crop in two separate regions.

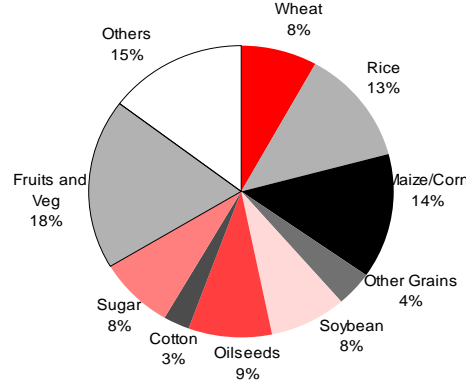
The table at the top of the next page details the differences in fertilizer consumption by region. As can be seen from the table, urea is typically more popular in countries with warmer climates while UAN is mainly used in North America. The US is one of the few countries where ammonia is used

Phosphate fertilizer consumption by crop (2007)



Source: IFA, HSBC

Potash fertilizer consumption by crop (2007)



Source: IFA, HSBC

Fertilizer consumption by region (2007)

	Urea	Nitrates	NPK	UAN	Others
US	19%	4%	14%	25%	38%
Western Europe	16%	45%	15%	11%	13%
Brazil	50%	8%	9%	0%	33%
China	62%	1%	6%	0%	31%
India	81%	0%	4%	0%	15%

Source: IFA, HSBC

as a direct source of nitrogen for fall season application, while nitrates are popular in Western Europe. China is the only country that uses ammonium bicarbonate (ABC), which has a 25% market share.

Both China and India are very large users of urea. In India in particular, urea is price-controlled, with the government subsidizing producers and offering a guaranteed minimum return while bearing almost all of the feedstock volatility. This guaranteed price mechanism has made urea the dominant fertilizer in the country, with an 80% share of the market. Brazil consumes a large proportion of urea, but also has substantial demand for P&K fertilizers on account of its large soybean crop.

The table at the bottom of the page overlays fertilizer consumption by region onto consumption patterns by type of crop. The most instructive piece of information from this analysis is the combined contribution of China and India on the demand for nitrogenous fertilizers, as well as on fertilizer demand for wheat and rice. China and India combined account for 67% of all fertilizers used in the cultivation of rice globally and 41% of fertilizers used in wheat cultivation.

Per our earlier analysis, both wheat and rice crops tend to favor nitrogenous fertilizers; hence, it comes as no surprise to find that China and India combined account for well over 45% of global nitrogenous fertilizer consumption.

With QAFCO levered to ammonia and urea – both nitrogenous fertilizers – and China and India being the main consumption centers for these fertilizers, demand for QAFCO's products is linked to the secular demand trends for food grains globally, with specific reference to the trend in China and India.

Urea demand drivers

Grain demand underpinning growth

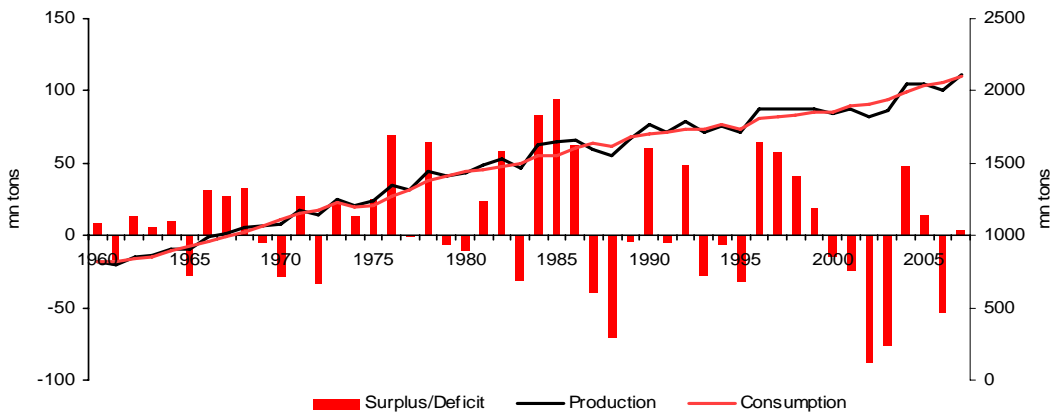
Global demand for food grains, as estimated by the United Nations, is expected to grow at 1.6% through 2020, on the back of a growing global population and increased urbanization. With the supply of arable land for cultivation expected to remain broadly fixed, the growth in demand needs to be met by increased agricultural productivity – better farming methods and enhanced use of agricultural inputs such as seeds, crop protection chemicals, and most important, fertilizers. The US Department of Agriculture (USDA) estimates that global food grain production in 2007 amounted to

Fertilizer use matrix: Region, type, crop (as a % of global demand in 2007)

	Nitrogenous	Phosphate	Potash	Wheat	Rice	Corn	Oilseeds
China	31.7%	30.1%	22.5%	24.5%	37.7%	24.8%	19.1%
India	14.4%	14.6%	8.6%	16.5%	28.9%	2.2%	9.4%
US	12.0%	11.2%	17.2%	9.5%	1.1%	39.0%	9.5%
EU-15	8.6%	6.5%	10.6%	11.3%	0.3%	6.1%	6.5%
Rest of world	33.3%	37.6%	41.1%	38.2%	32.0%	28.0%	55.5%

Source: IFA, HSBC estimates

Global food grain production



Source: FAO, USDA, HSBC

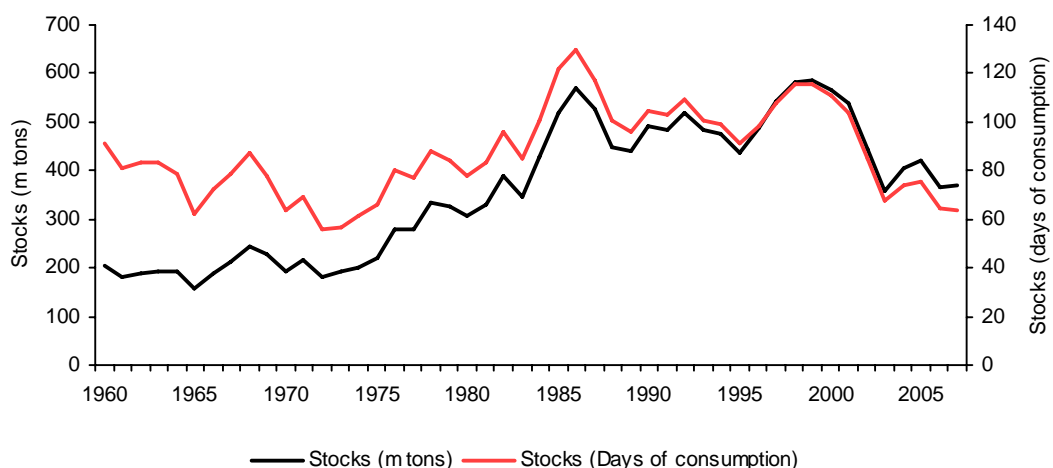
2.1bn tons – the third-highest production volume ever recorded. However, in light of rising demand, this level of production just about equaled global food grain consumption and left food grain stocks unchanged.

With food grain deficits in six of the last eight years, grain stocks as a percentage of consumption are currently at their lowest levels in 30 years. The outlook for food grains is also influenced by strong consumption from rapidly developing countries such as China and India, with steady increases in population and continued

strong economic growth contributing to increased demand for food grains and a rapid increase in grain prices. The rule of thumb, per the Earth Policy Institute, is that grain stock levels at less than 60 days of consumption are a signal for an increase in food grain prices.

The combination of demographic-driven strong global consumption demand, low food stocks, and constraints on arable land is likely to place pressure on food resources and increase demand for yield-enhancing measures – ranging from biotech seeds to increased use of fertilizers. The

Global food grain stocks



Source: FAO, USDA, HSBC

pressure that food grain production constraints will place on prices is another factor to consider when contemplating the demand for agricultural inputs such as fertilizers, as rising prices will incentivize farmers to increase their spending on better seeds and fertilizers.

We believe that global population growth demographics point to a multi year cyclical peak in terms of food grain demand, which cannot be met by increasing cultivation alone given the finite amount of arable land. With low levels of global food grain stocks underpinning growth in food grain prices, the use of fertilizers to supplement grain production is likely to see a sustained period of growth, in our opinion.

Increasing biofuel demand an additional growth catalyst

The heightened global energy price environment globally has fueled investments in alternative fuels, with particular interest being shown in the use of biofuels either directly as transportation fuels or through blending with gasoline. Biofuels are essentially transportation fuels, such as ethanol and biodiesel, which are made from plant or animal organic matter (biomass). These fuels are usually blended with petroleum fuels – gasoline and diesel fuel – but they can also be

used on their own. Ethanol is an alcohol fuel made from sugars found in grains, such as corn, sorghum, and wheat, with the bulk of production in the US involving distillation from corn.

While ethanol has been used as fuel in the US since the early 1900s, it was only after the oil shocks of the 1970s that a concerted effort was made to reduce consumption of gasoline by blending it with ethanol. This mandate to increase domestic ethanol production has only gotten stronger in recent times, with the Energy Independence and Security Act of 2007 expanding on the Renewable Fuels Standard (RFS) by requiring that 36bn gallons of renewable fuel be used annually by 2022. Of particular note, the legislation specifically states that 21bn gallons of that goal must come from advanced biofuels, including ethanol.

Such legislation has meant a sharp rise in ethanol production in the US and in the percentage of the corn crop dedicated to the production of ethanol. Ethanol production in the US grew from 175m gallons in 1980 to over 6bn gallons in 2005. This rapid growth in the market for fuel ethanol is changing the dynamics in the US corn industry, with increasing amounts of corn being dedicated to ethanol production. As can be seen from the

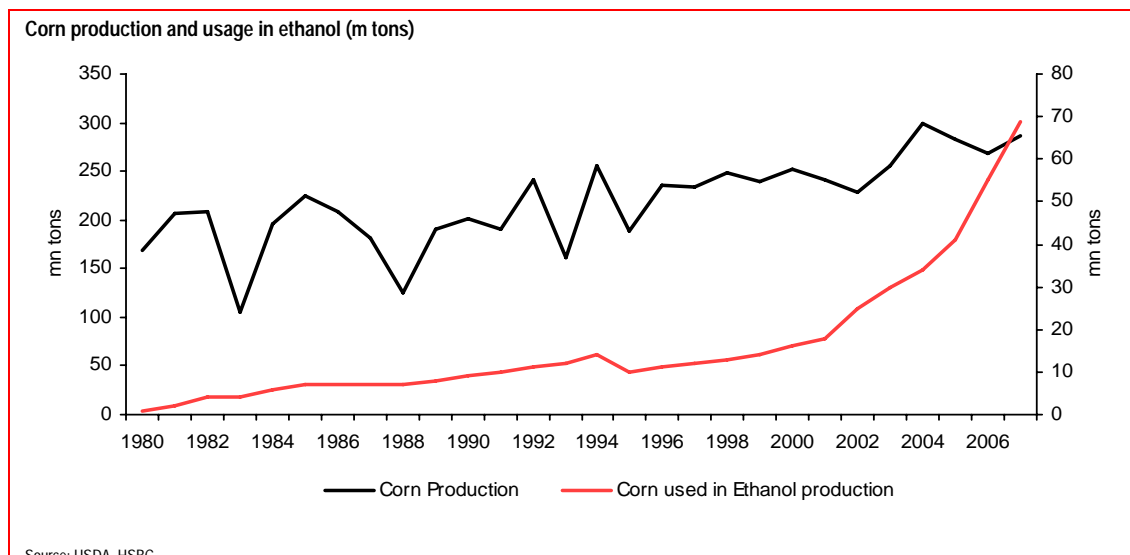


chart at the bottom of the previous page, the share of corn used for ethanol production has risen from less than 5% in 1995 to more than 24% by 2007. We expect ethanol demand to grow further, from 6bn gallons in 2007 to around 9bn gallons by 2012, with ethanol capacity set to keep pace with growing demand.

The impact of increased ethanol demand is clearly visible in the price of corn. From averaging USD1.90 per bushel in 2005, corn prices shot up by over 70% to average USD3.20 per bushel in 2006 and gained a further 20% for an average price of USD3.92 per bushel in 2007. Despite increased supply, it appears unlikely that corn prices will recede to historical levels.

The impact of ethanol demand in the US and rising corn prices on global food grain demand, grain consumption, and trade patterns is massive, in our opinion. The US is the largest producer of corn in the world – accounting for about 45% of global production and over 70% of global exports. Corn is also the largest planted field crop in the US by acreage – accounting for 79m acres in 2006 – 24% of the total 318m acres of field crops planted each year in the US.

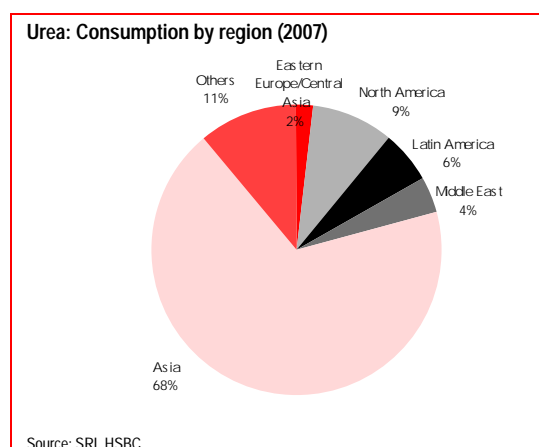
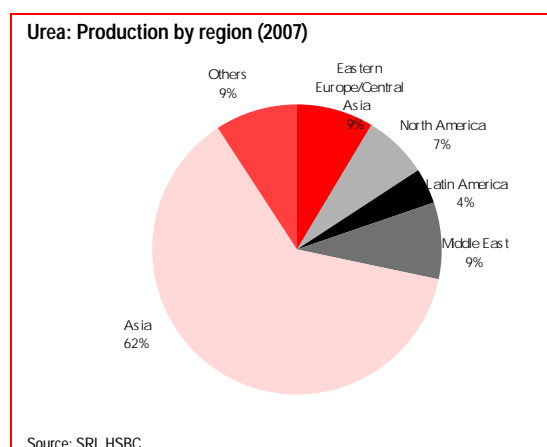
While corn yields are slated to increase over the medium term as newer varieties of biotech seeds are introduced, the estimated 1.5bn bushels in additional corn demand will not come from yield

increases alone. Increased corn demand will be met, in our view, through increased corn acreage at the expense of soybeans, reduced corn exports, or more likely a mix of both. In either case, this is likely to cause ripple effects globally in terms of increased corn and soybean production across the world.

The US is not just the largest producer of corn, but is also the largest exporter, accounting for over 70% of global corn exports. Any drop in US exports to meet domestic ethanol demand will have to be offset through increased corn supply from other nations – particularly, we believe, in Latin America.

The surge in US ethanol demand, in our opinion, presents an opportunity for providers of agricultural inputs such as seeds, fertilizers, and crop protection chemicals across the world. It is worth repeating that the ripple effects from ethanol and biofuel demand are not just restricted to the US or to the market for genetically modified corn seeds, but extend to other classes of yield-enhancing input, other crops, and other regions.

We believe that given the current energy price environment and with energy security always an emotive theme – particularly in the largest hydrocarbon-consuming nation in the world, the US – we are at the early stages of a sustained



growth period for biofuels, leading to sharply higher grain prices and demand. This higher grain price environment should feed through to significantly higher demand for crop inputs such as fertilizers, in our opinion.

Urea global supply/demand outlook

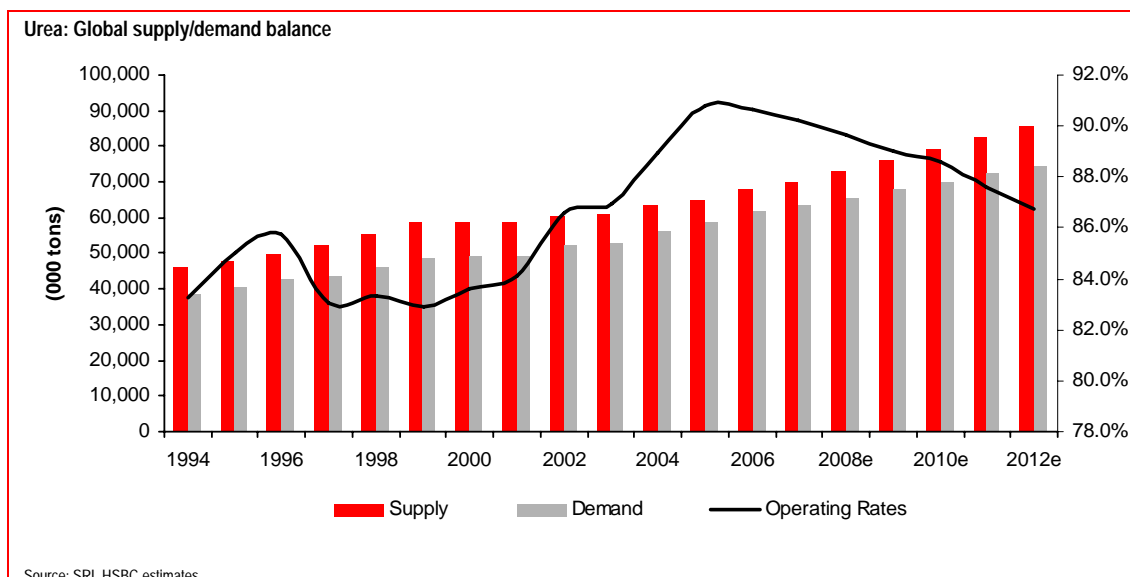
Urea is primarily used as a fertilizer, although industrial uses for the product also exist and account for a 10% share of global consumption. Urea, on account of its high nitrogen content, is the most popular form of solid nitrogen fertilizer, particularly in the developing regions of the world, and is one of the most widely traded fertilizers globally. The charts at the bottom of the previous page highlight regional production and consumption shares of urea.

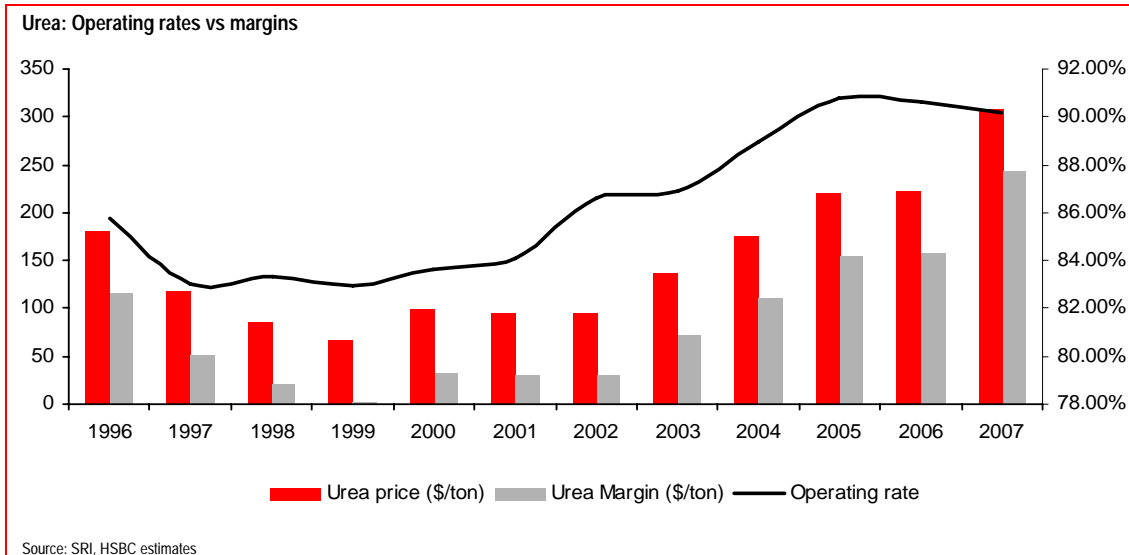
As can be seen, the region with the highest shares of urea production and consumption is the one with the highest population and demand for food grains – Asia. Urea demand has been growing at an average annual rate of 3.5% over the last 10 years, capturing share from other nitrogenous fertilizers as the total market for nitrogen has only grown at 1.9% over the same period.

We expect this trend of share gain for urea to continue, given that urea is the only price-controlled fertilizer in India and that the Chinese government is considering imposing duties on fertilizer exports. We are forecasting average annual urea demand growth of 3% through 2012 – underpinned by low grain stocks, surging demand for food, rising biofuels production, and record-high crop prices.

While demand is set to grow strongly, we expect supply growth over the next few years to be stronger still – growing at 4.1% annually through 2012, and placing pressure on operating rates. Per our estimates, urea operating rates peaked in 2005-2006 and are set to decline steadily through 2012, as new capacity comes onstream mostly in regions with lower-cost captive feedstock such as the Middle East.

We expect to see significant amounts of urea capacity being added in the Middle East and Latin America – regions that have access to stranded low-cost gas reserves. The Middle East, per our estimates, should account for about 40% of all new urea capacity through 2012, with large plants scheduled to come onstream in Oman, Iran, and Qatar.





Explaining the operating rate-margin dichotomy

The chart at the top of the page depicts the relationship between urea operating rates and estimated margin based on average historical prices for a fixed cost of a natural gas-based, low-cost producer. The relationship between operating rates and estimated margins through 2004 is classic commodity chemical behaviour, with margins rising and falling in cadence with operating rates, as expected. However, the relationship changes post-2005, when despite slackening supply/demand fundamentals, the margins accruing to fixed-cost producers increased by over 60% between 2005 and 2007.

This change in the margin dynamics of gas-based urea producers such as SAFCO is explained by the sharp increase in the cost structure of producers in Western Europe and in India over the last couple of years, which has moved the marginal pound of product away from the US and into Western Europe and Asia.

The marginal producer juggle

Fertilizers are easily transportable and commodities in the most basic sense, which means that net of transportation costs and tariffs,

the price of urea is pretty much the same across the world. In such a scenario, the price is set by the cost structure of the marginal producer, which had been the US industry on account of the spike in natural gas prices there since 2000. Therefore the price of urea in various markets used to be, effectively, the US cash cost of production, based off of US Gulf Coast natural gas price, less the costs of transporting and importing the product into the US.

The table at the top of the next page is instructive as we try and understand the mechanics of urea price-setting based on import costs into the US and the shift in marginal production away from the region. The table estimates the price of urea for a Middle Eastern producer based on the US Gulf Coast price of natural gas and import costs into the US. As can be seen from the data, US production costs provided a fairly accurate representation of Middle Eastern prices until 2005, after which time the picture changed dramatically.

The ever-widening gap between estimated urea prices based off of US natural gas costs and actual urea prices in the above table shows that the marginal pound of product is no longer produced

Urea: Shift in price-setting away from the US

	2003	2004	2005	2006	2007	2008e
US natural gas prices (USD/mmBtu)	5.4	6.1	8.2	7.0	6.8	7.1
Natural gas consumption per ton of urea (mmBtu)	26.0	26.0	26.0	26.0	26.0	26.0
Feedstock costs	140.4	159.0	214.2	182.3	176.8	183.6
Other cash costs	35.0	35.0	35.0	35.0	35.0	35.0
Total cash costs	175.4	194.0	249.2	217.3	211.8	218.6
Price equivalence in the Middle East						
Less US terminalling costs	10	10	10	10	10	10
Less US freight costs	30	30	40	40	40	40
Forecast ME price (USD/ton)	135	154	199	167	162	169
Average actual prices	138	165	220	223	308	380
Discrepancy between actual and forecast prices	3	11	21	56	146	211

Source: SRI, HSBC estimates

in the US. Furthermore, it also suggests that any pricing forecasts for urea made relying on the historical backdrop of the US as the price-setting region would be incorrect.

The main driver of global urea prices over the last couple of years has not been natural gas, but crude oil. While the bulk of global urea production is based on natural gas, very few producers other than those in the Middle East have access to stranded gas reserves that provide them with a fixed cost of gas. In the US, producers pay Henry Hub-linked market prices, while in most of Western Europe, urea producers pay gas prices that are linked to a formula based on the price of crude oil-derived products (see table below).

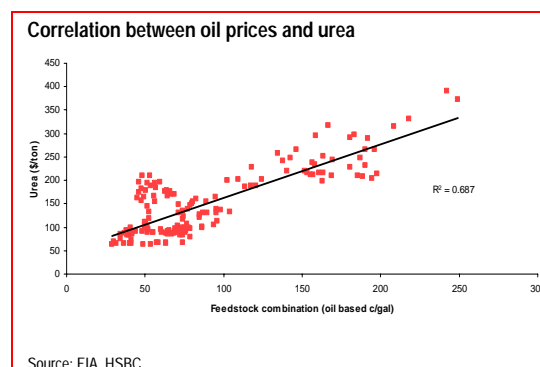
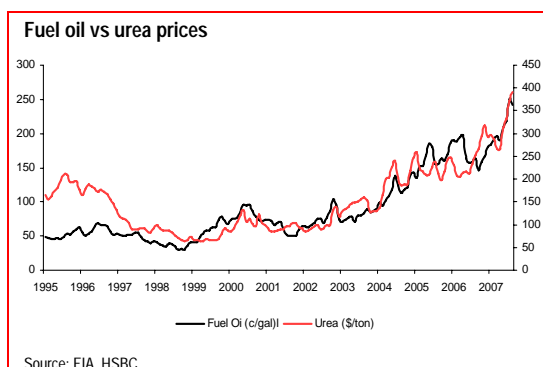
Sample European producer gas-pricing formula

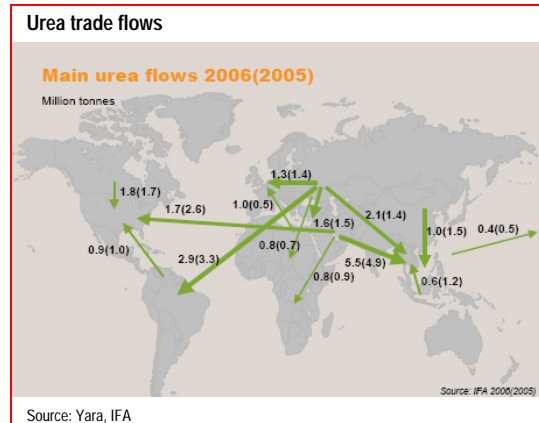
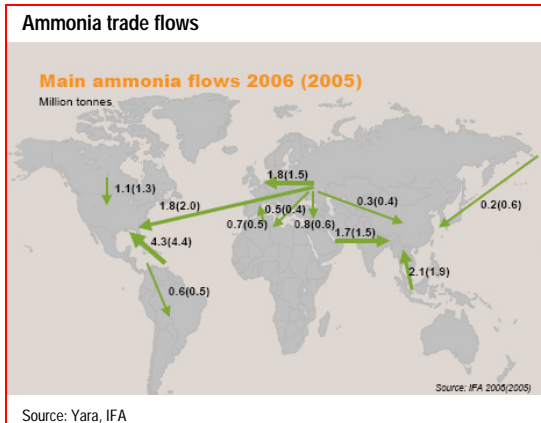
Low sulfur fuel oil	50%
Gasoil 0.2%	20%
Heavy fuel oil	15%
Others	15%

Source: Corporate Reports, HSBC estimates

This linkage of feedstock costs and crude oil prices – further illustrated in the charts at the bottom of the page – is the primary reason why the marginal ton of production has moved away from the US and to Western Europe and India. While average natural gas prices have actually declined 15% since 2005, crude oil prices, on the other hand, have jumped over 60% in the same period, dramatically changing the picture in terms of production costs, and driving urea prices higher in a bid to support the cost of production for the marginal producers.

We expect this higher price environment to persist despite the slackening supply-demand environment, as the outlook for energy prices, particularly crude oil, appears to be robust through 2012. Our long-term average crude oil price forecast of USD70per bbl translates roughly into urea production costs of about USD400 per ton. This should result in an extremely strong





margin environment for producers such as SAFCO, which pay a fixed price for their gas.

This higher urea pricing environment is being exacerbated by developments in the states of the former Soviet Union and in India. Central and Eastern Europe is a significant ammonia and urea production block, accounting for roughly 10% of global capacity. The region is also the main trading hub for both ammonia and urea, with the most liquid markets for ammonia and urea being Yuzhny in the Black Sea. Most of the world's spot trade takes place on this trade route, and prices are quoted as being off Yuzhny. Yuzhny FOB (free on board) prices set the benchmark for global urea and ammonia trade. In recent times, there has been a sharp increase in the price of gas supplied to Ukraine and other Eastern European states by Russia, which has increased the cost of production in this region.

In Ukraine, the new price for natural gas supplied from Russia has been stated as USD180 per 1,000 cubic meters delivered, which translates to

USD5.10 per mmBtu, elevating the floor pricing for urea to about USD200 per ton.

India, another large urea producer, relies on naphtha for over half of its urea production. Naphtha prices are linked to crude and averaged USD800 per ton in 2007 – pushing up the cost of urea production in India to about USD400 per ton. Given that urea production in India is price-controlled and government-subsidized, producers have little incentive to seek alternative feedstocks, thereby raising urea production costs across the board in the country.

What we are seeing in urea production is an elevation of production costs – not just in one or two regions with small capacity bases, but across the world, with Asia, Europe, and the US being hit by higher energy costs translating into higher product prices. We believe that this higher pricing regime for urea is here to stay despite some slackening in supply/demand fundamentals over the next few years. We expect low-cost producers such as SAFCO to benefit from this trend.

SAFCO: Production cost estimates

Ammonia: Delivered cost to Asia			Urea: Delivered cost to Asia		
Gas cost (USD/mmBtu)	0.75		Ammonia cost	50.3	USD/ton
Gas consumption	35	mmBtu/ton	Ammonia consumption per ton of urea	0.6	tons
Cost of gas	26.3	USD/ton	Ammonia costs	28.9	USD/ton
Other cash costs	24	USD/ton	Energy costs	12	USD/ton
Total cash costs	50.3	USD/ton	Conversion costs	15	USD/ton
Freight	30	USD/ton	Freight	30	
Total costs	80.3	USD/ton	Total costs	85.9	

Source: HSBC estimates

Estimating SAFCO's production costs

Knowing SAFCO pays USD0.75 per mmBtu for its natural gas, SAFCO's delivered cost to the Asian markets for ammonia would be about USD80 per ton, while for urea the costs would be about USD85 per ton. Detailed cost of production assumptions are broken out in the table at the bottom of the previous page.

SAFCO: Earnings model

Our earnings model for SAFCO is based on the company's installed capacity, our forecasts for ammonia and urea pricing, and our production cost model for SAFCO, discussed earlier.

For our urea and ammonia pricing forecasts, we assume that the driver of nitrogenous fertilizer production costs continues to remain crude oil and that there is no radical downward shift in crude oil prices through 2010, or any change in the current

SAFCO: HSBC earnings model

SAFCO capacity (000 tons)	2006	2007	2008e	2009e	2010e	2011e	2012e
Ammonia	1,200	1,933	2,300	2,098	2,098	2,098	3,298
Urea	1,500	2,233	2,600	2,270	2,270	2,270	3,770
Melamine	20	20	20	20	20	20	20
Sulphuric acid	131	131	131	131	131	131	131
SAFCO production volumes (000 tons)							
Ammonia	1,212	1,904	2,116	1,951	1,888	1,888	2,968
Urea	1,515	2,200	2,522	2,225	2,043	2,043	3,393
Melamine	20	20	19	19	19	19	19
Sulphuric acid	133	130	125	125	118	118	118
SAFCO sales volumes (000 tons)							
Ammonia	354	658	687	691	731	731	1,046
Urea	1,515	2,200	2,522	2,225	2,043	2,043	3,393
Melamine	20	20	19	19	19	19	19
Sulphuric acid	133	130	125	125	118	118	118
Methanol				376	376	376	376
Product pricing (USD/ton)							
Ammonia	265	274	480	538	455	377	374
Urea	229	320	510	560	480	400	400
Melamine	1,500	1,775	1,873	1,873	1,829	1,763	1,763
Sulphuric acid	130	140	184	205	174	143	143
Methanol				1,376	1,119	1,048	975
Sales (SARm)							
Ammonia	351	676	1,243	1,393	1,246	1,033	1,466
Urea	1,302	2,640	4,825	4,672	3,677	3,065	5,090
Melamine	114	132	133	133	130	126	126
Sulphuric acid	65	68	88	96	77	64	64
Methanol				1,942	1,579	1,479	1,375
Total SAFCO sales	1,832	3,516	6,289	8,236	6,710	5,765	8,120
Product margins (USD/ton)							
Ammonia	185	185	400	454	368	285	260
Urea	152	234	424	471	387	303	288
Melamine	750	888	1,218	1,124	1,006	970	882
Sulphuric Acid	32	34	35	38	31	25	25
Methanol				945	688	617	544
EBITDA (SARm)							
Ammonia	245	456	1,036	1,177	1,007	782	1,021
Urea	865	1,931	4,012	3,927	2,965	2,320	3,666
Melamine	57	66	87	80	72	69	63
Sulphuric acid	16	17	5	18	14	11	11
Methanol				1,333	971	870	767
Total SAFCO EBITDA	1,183	2,470	5,140	6,535	5,028	4,053	5,528

Source: Corporate Reports, HSBC

marginal producer environment for ammonia and urea. We are assuming an average crude oil price of USD70 per barrel through 2012 and believe that the major risk to this assumption is on the upside.

Furthermore, we are assuming that SAFCO will continue to procure natural gas at USD0.75 per mmBtu through 2011, and at USD1.25 per mmBtu thereafter. Our margin assumptions are derived from our pricing forecasts and production cost estimates. Our earnings model for SAFCO is detailed in the table at the bottom of the previous page.

Given the backdrop of strong demand growth underpinned by low grain stocks, rising food demand, and biofuels, as well as the drastic change in urea production costs across the world, we believe that low-cost producers such as SAFCO will continue to generate very strong earnings over the next few years. We believe that that the strongest period for SAFCO in terms of earnings lies ahead, over the 2008-2010 period, despite our view that the urea cycle peaked in terms of operating rates in 2005-2006.

While SAFCO does not currently produce steel, SAFCO and HADEED have signed an agreement to construct a 50:50 owned facility in Jubail Industrial City for the production of flat steel products. The company expects commercial production to commence in 2013 with an annual capacity of 1.7m metric tons.

During the construction phase of the flat products facility, SAFCO reached an agreement with SABIC affiliate the Saudi Methanol Company (AR-RAZI) to make use of its steel-related natural gas allocation to produce methanol for SAFCO for an interim period, until the completion of the flat steel products project.

SAFCO's planned capacity addition (SAFCO-V), aimed at adding 1.2m tons of ammonia and 1.5m tons of urea production annually, with an expected start-up date of 2011, has been put on hold since the company has still not secured a gas supply contract. In our model, we are assuming a 2012 start-up date for this project. If the project is delayed further or in a worst-case scenario, cancelled, this could provide further downside to our valuation.

We expect SAFCO's cost advantage in methanol to remain strong in the medium term, with production costs averaging USD100 per ton, compared to marginal producers' averaging USD250 per ton.

Once the plant is up and running, steel production will be the one product area at SAFCO that does not have any competitive advantage in terms of cost structure. We believe SAFCO will meet all of its iron ore requirements from imports, sourced mainly from Brazil and Sweden. The steel produced by SAFCO is earmarked for domestic consumption, which we expect to remain strong. While strong domestic demand may continue to buoy pricing, we believe that the company should achieve EBITDA margin levels in the mid-20% area, in line with margins seen at Industries Qatar's QASCO segment.

Valuation and sensitivity

SAFCO

Our preferred methodology for valuing commodity chemical companies has been the normalized valuation framework. In our normalized valuation approach for each company under our coverage, we determine a mid-cycle, or “normalized,” earnings number based on a historical trend line through one full commodity cycle. The implied growth rate of this earnings trend is the average return on capital for that company through the cycle. This methodology, however, is not applicable to stocks where we do

not have long enough earnings history or, as is the case with SAFCO, historical figures relating to individual product margins in the region. This makes it virtually impossible to do a bottom-up analysis of the normal earnings power of the company.

Replacement value analysis

For SAFCO, we base our target price on a replacement value approach, supplemented by a multiple-based valuation approach. For our replacement value analysis, we define replacement value as the cost associated with

SAFCO: Replacement value analysis

Product	Stake	Capacity, 000 tons	Replacement value, c/lb	Replacement value, USDm
Ammonia	100.0%	3,298	26	1,890
Urea	100.0%	3,770	26	2,161
Melamine	100.0%	20	52	23
Suphuric acid	100.0%	131	10	29
Steel*	100.0%	850	1,200	1,020
Subsidiaries				
Ibn Al Baytar (National Chemical Fertilizer)				
Ammonia	50.0%	550	26	158
Compound fertilizers	50.0%	1,040	26	298
Urea	50.0%	500	26	143
Ibn-Rushd	3.7%	300	43	11
Sabayek (Gulf Ferro Alloy Company)*	5.0%	177	1,200	11
Yansab				
Ethylene	1.7%	1,300	56	27
Ethylene oxide	1.7%	560	50	10
Propylene	1.7%	400	35	5
Mono ethylene glycol	1.7%	700	50	13
Di-ethylene glycol	1.7%	65	60	1
Tri-ethylene glycol	1.7%	5	60	0
Polypropylene	1.7%	400	27	4
LLDPE	1.7%	400	52	8
HDPE	1.7%	400	52	8
Butene-1	1.7%	65	25	1
Butene-2	1.7%	50	25	0
MTBE	1.7%	20	65	0
Benzene	1.7%	170	55	4
Toulene-Xylene	1.7%	70	47	1
Total replacement value, USDm				5,827
Total replacement value, SARm				21,851
Replacement value per share				87.4

*In USD per ton
Source: Corporate Reports, HSBC

SAFCO: Feedstock DCF

		2006	2007	2008e	2009e	2010e	2011e	2012e	2013e	
Natural gas	mmBtu	45,980,832	73,593,683	87,400,109	89,909,326	89,909,326	89,909,326	135,890,158	135,890,158	
Natural gas	USD/mmBtu	0.75	0.75	0.75	0.75	0.75	0.75	1.25	1.25	
costs										
Ethane	USD/ton	74	74	74	74	74	74	99	99	
costs										
Butane	USD/ton	59	59	59	59	59	59	83	83	
costs										
Feedstock	Nat. gas	34	55	66	67	67	67	170	170	
costs										
	Total USDm	34	55	66	67	67	67	170	170	
Global feedstock costs (USD/ton) (long-term gas at USD8/mmBtu and crude at USD70/bbl)										
Ethane	USD/ton	479	508	653	725	616	508	870	870	
Natural gas	USD/mmBtu	7	7	10	10	9	9	9	9	
Cost of feedstock at global prices										
	Nat. gas	323	515	874	899	809	809	1,237	1,237	
	Total USDm	323	515	874	899	809	809	1,237	1,237	
									Terminal value	
Feedstock adv	USDm	288	460	808	832	742	742	1,067	1,067	11,229
			1	2	3	4	5	6	7	12
Cost of capital		9.50%								
PV of cash flows			420	674	633	516	471	619	565	3,779
NPV (USDm)										9,489
NPV (SARm)										35,583
No of shares (m)										250
Value per share from the feedstock advantage (SAR)										142.33

Source: Corporate Reports, HSBC

setting up a greenfield world-scale facility to produce a particular chemical product. Using production capacities and our estimate of costs associated with building greenfield facilities for the various products in SAFCO's portfolio, we arrive at a replacement value for the company.

In the tables on the previous and the current pages, we detail SAFCO's valuation according to this metric. We arrive at SAFCO's target price via a two-step process. First, on a bottom-up basis, we evaluate the replacement value for each product within SAFCO's portfolio, which, as seen in the table at the bottom of the previous page, totals SAR21.8bn, or SAR87.4 per share.

This analysis, however, is incomplete without layering on the value of SAFCO's feedstock advantage. We need to keep in mind that the unique profitability of SAFCO's assets is tied to the low-cost feedstock that the company sources,

and that the delta in feedstock costs between SAFCO and global rates needs to be incorporated into the valuation.

In the second step of our replacement value analysis, we carry out a DCF around SAFCO's feedstock advantage. From the company's product capacities, we can determine the amount of feedstock that the company purchases annually. We also know the price that SAFCO pays for its gas supply – USD0.75 per mmBtu until 2011 and USD1.25 per mmBtu thereafter – and consequently, its cost for ethane supplies. We do not include future iron ore consumption in this analysis, given that the company will pay market rates for that feedstock.

Using this data on cost-advantaged raw material consumption and price, and comparing them to the costs of feedstock for marginal producers, we come up with a value for the feedstock advantage

in a given year. Performing a discounted cash flow analysis around this advantage helps us to arrive at a valuation for this cost advantage.

As seen in the table at the top of the previous page, we estimate that this advantage is worth SAR35.6bn, or SAR142.3 per share. Adding the replacement value to the feedstock advantage value gives us our base-case replacement valuation for SAFCO, which is SAR230 per share, our 12-month target price.

Multiple-based analysis

SAFCO is essentially a single-product company, currently generating 97% of its revenues from fertilizers – urea and ammonia. In our multiple-based valuation analysis approach, we analyze valuation based on both price-to-earnings and EV-to-EBITDA multiples.

The major shortcoming of a multiple-based analysis often lies in that there is no such thing as a perfect peer. This is all the more true in the case of SAFCO, which is unique in terms of its profitability profile, with average EBITDA margins of 67% over the last two years, versus 25% for the peer group.

The table at the bottom of the page details our multiple-based analysis for SAFCO using a diverse group of fertilizer companies as a peer group. SAFCO currently trades at a 34% premium to its peer groups mean 2010e price-to-earnings and a 94% premium to its peer groups mean EV-to-EBITDA, which we believe is excessive.

Under our research model, for stocks without a volatility indicator, the Neutral band is five percentage points above and below the hurdle rate for Qatari stocks of 9.5%. Our target price of SAR230 indicates a potential total return of 7.7%, within the Neutral band of our model; therefore, we are initiating coverage of SAFCO stock with a Neutral rating.

Sensitivities

Capital cost inflation

In our 2 July 2007 note, *The capital cost conundrum*, we had estimated that the Middle East has seen capital cost inflation in the range of 1.8-2.4x over last few years. Our base-case analysis does not factor any capital cost inflation into the replacement value, which, in our view, is the conservative way of valuing SAFCO. In our bull case, if we were to factor in a 1.8x increase in

SAFCO: Multiple-based valuation (USDm)

Peer companies	PE		EV/EBITDA	
	2009e	2010e	2009e	2010e
Yara International	6.91	7.00	5.38	6.62
Mosaic	8.95	7.50	5.91	4.73
Agrium	7.82	8.40	4.64	4.87
Terra	10.13	9.38	4.38	4.12
Israel Chemical	6.71	6.20	5.59	5.21
PotashCorp	9.34	9.89	6.26	5.61
CF Industries	7.57	8.58	4.17	3.46
Mean	8.20	8.14	5.19	4.94
Premium/discount	0.0%	0.0%	0.0%	0.0%
Implied multiple	8.20	8.14	5.19	4.94
EPS or EBITDA	25.40	19.55	6,535	5,028
Implied price per share	208.4	159.0	148.6	120.3
Current share price	213.5	213.5	213.5	213.5
Current implied PE or EV/EBITDA	8.41	10.92	7.67	9.58
Upside potential	-2.4%	-25.5%	-30.4%	-43.6%

Source: Corporate Reports, HSBC

capital costs across the board to SAFCO's facilities, and then perform our replacement value analysis, we would arrive at a replacement value of SAR300 per share – still implying at most 40% upside from current levels. That said, at such a capital cost multiplier, both IQ and SABIC would have greater upside than SAFCO.

Sustained high energy prices

Our margin models for all of SAFCO's products bake in a moderating energy price environment, with crude oil prices, per our forecasts, moderating to USD70 per bbl by the 2011-2012 timeframe. The biggest upside to our SAFCO earnings estimates and to our valuation stems from an environment of continued high energy prices, in our opinion.

To illustrate this point, we take the example of urea production costs. We are forecasting trough urea prices of USD400 per ton by 2011-2012, corresponding to declining operating rates and a moderating crude price. However, if crude prices were to remain at USD80 per bbl (rather than our long-term forecast of USD70 per bbl), we would see urea prices remain above USD440 per ton even in a trough, adding around a further USD40 per ton to SAFCO's trough earnings. Given that, according to our estimates, SAFCO should have

over 2.3m tons of urea capacity by then, this would translate into a bump of SAR1.35 to our trough EPS forecast.

Our feedstock DCF, which yields a value of SAR142.3 per share, bakes in a natural gas crude equivalent price of USD90 per bbl. If we were to apply USD100 per bbl in crude prices, that feedstock advantage would increase to SAR152.7 per share – again, representing upside to our current estimates. The table at the bottom of the page provides target price sensitivities to varying long-term crude oil prices and capital cost inflation multipliers.

A sharp correction in global energy prices represents downside risks to SAFCO's stock price, as well as the broader Middle Eastern markets. The bulk of new investments and growth opportunities in the region presume a period of sustained high energy prices; a correction in the pricing regime for crude oil would imply a corresponding sharp correction in the regional markets. We believe that investors in SAFCO and in the region need to be comfortable with the idea of longer-term crude oil prices around at least USD70 per bbl before putting money in chemical stocks in the region.

SAFCO: Valuation sensitivity to varying long-term crude oil prices and capital cost inflation multipliers

Valuation, SAR/sh	1.0x	1.2x	1.4x	1.6x	1.8x	2.0x
60	200	217	235	252	270	287
70	210	227	245	262	280	297
80	220	237	255	272	290	307
90	230	247	265	282	300	317
100	240	257	275	292	310	327
110	250	267	285	302	320	337
120	260	277	295	312	330	347
Upside potential	1.0x	1.2x	1.4x	1.6x	1.8x	2.0x
60	-7%	1%	9%	17%	25%	33%
70	-3%	5%	14%	22%	30%	38%
80	2%	10%	18%	26%	35%	42%
90	7%	15%	23%	31%	39%	47%
100	11%	19%	28%	35%	44%	52%
110	16%	24%	32%	40%	48%	56%
120	21%	29%	37%	45%	53%	61%

Source: Corporate Reports, HSBC

SAFCO-V cancellation

There is much chatter in Saudi Arabia relating to possible natural gas shortages once the current wave of capacity additions is completed by 2011-2012. To that end, SAFCO's planned capacity addition (SAFCO-V), aimed at adding 1.2m tons of ammonia and 1.5m tons of urea production annually, with an expected start-up date of 2011, has been put on hold since the company has still not secured a gas supply contract.

In our model, we are assuming a 2012 start-up date for this project. If the project is delayed further or in a worst-case scenario, cancelled, this could shave off as much as SAR58 per share from our fair valuation of SAR230. In the table at the bottom of the page, we provide crude oil price and capital cost inflation sensitivities in an extreme case where SAFCO-V does not come online. In that scenario, SAFCO stock would look overvalued even at USD120 per bbl in long-term crude oil prices.

Industries Qatar

For IQ, we base our target price on a replacement value approach. For our replacement value analysis, we define replacement value as the cost associated with setting up a greenfield, world-scale facility to produce a particular chemical product. Using production capacities and our

estimate of costs associated with building greenfield facilities for the various products in IQ's portfolio, we arrive at a replacement value for the company. We arrive at IQ's target price via a two-step process. First, on a bottom-up basis, we evaluate the replacement value for each product within IQ's portfolio, which totals QAR63.9bn, or QAR116.2 per share.

This analysis, however, is incomplete without layering on the value of IQ's feedstock advantage. We need to keep in mind that the unique profitability of IQ's assets is tied to the low-cost feedstock that the company sources from QP, and that the delta in feedstock costs between IQ and global rates needs to be incorporated into the valuation. In the second step of our replacement value analysis, we carry out a DCF around IQ's feedstock advantage. From the company's product capacities, we can determine the amount of feedstock that the company purchases annually.

We also have been able to estimate the price that IQ pays for its gas supply from QP – USD1.25 per mmBtu – and, consequently, its cost for ethane supplies. We do not include butane consumption for QAFAC or iron ore consumption for Qatar Steel in this analysis, given that the company pays market rates for these feedstocks.

SAFCO: Valuation sensitivity to varying long-term crude oil prices and capital cost inflation multipliers excluding SAFCO-V

Valuation, SAR/sh	1.0x	1.2x	1.4x	1.6x	1.8x	2.0x
60	142	159	177	194	212	229
70	152	169	187	204	222	239
80	162	179	197	214	232	249
90	172	189	207	224	242	259
100	182	199	217	234	252	269
110	192	209	227	244	262	279
120	202	219	237	254	272	289
Upside potential	1.0x	1.2x	1.4x	1.6x	1.8x	2.0x
60	-34%	-26%	-18%	-10%	-2%	6%
70	-29%	-22%	-13%	-5%	3%	11%
80	-25%	-17%	-9%	-1%	8%	16%
90	-20%	-12%	-4%	4%	12%	20%
100	-16%	-8%	1%	9%	17%	25%
110	-11%	-3%	5%	13%	22%	29%
120	-6%	2%	10%	18%	26%	34%

Source: Corporate Reports, HSBC

Using these data on cost-advantaged raw material consumption and price, and comparing them to the costs of feedstock for marginal producers, we come up with a value for the feedstock advantage in a given year. Performing a discounted cash flow analysis around this advantage helps us to arrive at a valuation for this cost advantage.

We estimate that this advantage is valued at QAR59.6bn, or QAR108.4 per share. Adding the replacement value to the feedstock advantage value gives us our base-case replacement valuation for IQ, which is QAR225 per share, our 12-month target price.

Under our research model, for stocks without a volatility indicator, the Neutral band is five percentage points above and below the hurdle rate for Qatari stocks of 9.5%. Our 12-month target price of QAR225 indicates a potential total return of 25%, which is above the Neutral band of our model; thus, we maintain our Overweight rating.

SABIC

For SABIC, we base our target price on a replacement value approach. We define replacement value as the cost associated with setting up a greenfield world-scale facility to produce a particular chemical product. Using production capacities and our estimate of costs associated with building greenfield facilities for the various products in SABIC's portfolio, we arrive at a replacement value for the company.

We arrive at SABIC's target price via a two-step process. First, on a bottom-up basis, we evaluate the replacement value for each product within SABIC's portfolio; this totals SAR422.3bn.

This analysis is incomplete without layering on the value of SABIC's feedstock advantage. In the second step, we carry out a DCF on SABIC's feedstock advantage. From the company's product capacities, we can evaluate how much feedstock the company purchases annually. We also know the price that SABIC pays for a variety of feedstocks – be they ethane, propane, or naphtha – and similarly, we know the price of these feedstocks in the Western world.

Using these three variables, we come up with a value for the feedstock advantage in a given year, and doing a DCF around this advantage helps us to arrive at a valuation for this cost advantage. Adding the replacement value to the feedstock advantage value allows us to arrive at our base-case valuation of SAR210 per share, which is our 12-month target price for SABIC shares.

Under our research model, for stocks without a volatility indicator, the Neutral band is five percentage points above and below the hurdle rate for Saudi stocks of 9.5%. Our 12-month target price of QAR210 indicates a potential total return of 77%, which is above the Neutral band of our model; thus, we maintain our Overweight rating.

Risks

SAFCO

Energy price correction

A sharp correction in global energy prices, particularly the price of crude oil, represents the biggest risk to our Neutral rating on SAFCO shares, in our opinion. We are building in longer-term crude oil price forecasts of about USD70 per bbl and running our earnings models off of that estimate. As we have discussed in detail in our note, the cost structure for the marginal producers of fertilizers is linked to crude oil, with global prices for these products reflecting medium- to longer-term movements in the oil price. For producers such as SAFCO, whose feedstock is based on fixed-price gas, a higher price of crude implies that the cost differential goes straight through to the benefit of its margins.

Any sharp decline in global crude prices would impact the cost advantage that SAFCO has over its competitors and reduce its margins. While we believe that the risk to our longer-term crude oil forecast of USD70 per bbl lies on the upside, we would caution that SAFCO stock is not an appropriate investment for investors bearish on crude oil prices.

On the flipside, even if we were to assume USD120/bbl in long-term crude oil prices, we still do not see any upside to valuation from current levels.

Cyclical

All the products that SAFCO produces are commodity products, whose earnings are

inherently cyclical and driven by industry operating rates and supply/demand fundamentals. While we would argue that the cycle for each product is different – ranging from food supply to construction demand – and inherently provides a degree of offset, there is no denying that earnings are linked to global GDP growth.

An uptick in global GDP growth, notably in China, which has formed a major engine of the global demand story over the last few years, represents a key upside risk for the company.

Gas supply for further expansion

There is much chatter in Saudi Arabia relating to possible natural gas shortages once the current wave of capacity additions is completed by 2011-2012. To that end, SAFCO's planned capacity addition (SAFCO-V), aimed at adding 1.2m tons of ammonia and 1.5m tons of urea production annually, with an expected start-up date of 2011, has been put on hold since the company has still not secured a gas supply contract. In our model, we are assuming a 2012 start-up date for this project. If the project is delayed further or in a worst-case scenario, canceled this could shave off as much as SAR58 per share from our fair valuation of SAR230.

Better-than-consensus results

Consistent with our view that SAFCO's main products – ammonia and urea – should see strong fundamentals for the medium to long term, we have above-consensus EPS estimates for 2008 and 2009, at SAR19.60 and SAR25.40, respectively,

(versus consensus estimates of SAR17.04 and SAR16.03, respectively). Momentum investors may give credit to any potential earnings beat relative to consensus sending the stock price higher, despite our view of the stock being fairly valued at current levels.

Operating risks

In addition to normal business risk in the petrochemicals market, we see other potential risks that are more difficult to assess, both in terms of probability and effect. Such risks include interruption to production from operating problems or explosion. Although the bulk of SAFCO's production is based in Saudi Arabia, which some investors may associate with increased risk of terrorist attack, the more practical, everyday issue is that of normal risk in a production process involving potentially explosive hydrocarbons, an area in which global standards of health and safety are rigorously applied.

Industries Qatar

Energy price correction

A sharp correction in global energy prices, particularly in the price of crude oil, represents what we view as the biggest risk to our Overweight rating on IQ shares. We are building in longer-term crude oil price forecasts of about USD70 per bbl and running our earnings models for QAFCO, QAPCO, and QAFAC off of that estimate.

The cost structure for the marginal producers of fertilizers and petrochemicals is linked to crude oil, with global prices for these products reflecting medium- to longer-term movements in the oil price. For producers such as IQ, whose feedstock is based on fixed-price gas, a higher price of crude implies that the cost differential goes straight through to the benefit of its margins. Any sharp decline in global crude prices would impact the

cost advantage that IQ has over its competitors and reduce its margins.

Cyclical

The four components of IQ are all commodity companies, with earnings that are inherently cyclical and driven by industry operating rates and supply/demand fundamentals. While we would argue that the cycles for each business are different – ranging from food supply to construction demand – and inherently provide a degree of offset, there is no denying that earnings are linked to global GDP growth. A severe downturn in global GDP growth, notably in China, which has formed a major engine of the global demand story over the past few years, represents a key risk for the company, we believe.

Longevity of supply contracts and tariffs

Another recurring concern for investors is the longevity of IQ's gas supply contracts with QP and the sustainability of cost-advantaged pricing. There is little clarity available on the length of the contracts; while we know that the QAFCO gas supply contract is valid until 2019, we have no information on similar contracts for QAPCO and QAFAC. However, we would argue that the basic premise for IQ's existence is to diversify the country's economic base while exploiting its hydrocarbon resources.

Given that the government still owns 70% of the company through QP and that all of IQ's subsidiaries are aggressively ramping up capacity over the next couple of years, we would be surprised if the cost-advantaged gas contracts were to change significantly at any time in the future.

Similar concerns have been raised about the country's steel tariffs, which protect margins for QASCO. Given that the tariffs have been in place for more than 20 years and that the company

depends on them for its profitability, we would be surprised if the tariff regime were modified in the near term – particularly given that the company is spending an estimated QAR16bn on steel capacity expansions over the next three years.

SABIC

SABIC's earnings depend on overall chemical industry margins, so significant shifts in this area represent the greatest risk to our forecasts. The biggest risk to petrochemicals demand, we believe, would be a severe downturn in GDP growth, notably in China, which has formed a major engine of global demand growth. However, in a commodity-type business, margins tend to be self-correcting over time, as has been demonstrated throughout the history of the petrochemicals business. It is the relative slowness of these processes that may distort short-term margins – hence, the importance of normalized earnings to assess underlying long-term value.

In addition to normal business risk in the petrochemicals market, we see other potential risks that are more difficult to assess, both in terms of probability and effect. Such risks include interruption of production due to operating problems or explosions.

Although the bulk of SABIC's production is based in the Middle East, which some investors may associate with an increased risk of terrorist attack, the more practical, everyday issue is that of normal risk in a production process involving potentially explosive hydrocarbons, an area in which global standards of health and safety are rigorously applied.

Financial models

SAFCO: Income statement (SARm)

	2006	2007	2008e	2009e	2010e	2011e	2012e
Net sales							
Ammonia	351	676	1,243	1,393	1,246	1,033	1,466
Urea	1,302	2,640	4,825	4,672	3,677	3,065	5,090
Melamine	114	132	133	133	130	126	126
Sulphuric acid	65	68	88	96	77	64	64
Methanol				1,942	1,579	1,479	1,375
Consolidated net sales	1,832	3,516	6,289	8,236	6,710	5,765	8,120
Cost of sales (excludes depreciation)	547	879	835	1,289	1,347	1,424	2,186
Gross profit	1,285	2,637	5,455	6,947	5,364	4,341	5,934
SG&A expense	102	167	314	412	336	288	406
SG&A to sales	5.6%	4.8%	5.0%	5.0%	5.0%	5.0%	5.0%
D&A expense	194	343	344	344	344	344	344
Unusual charges							
Operating income	989	2,127	4,796	6,191	4,684	3,709	5,184
Interest income and finance charges, net	36	29	8	89	132	88	57
Share of net income from Ibn Al-Baytar	174	164	300	335	274	214	202
Writedown of investments	(31)	(31)	0	0	0	0	0
Other income	12	(3)	0	0	0	0	0
Income before taxes	1,180	2,286	5,104	6,614	5,090	4,011	5,443
Provision for taxes (benefit)	27	77	204	265	204	160	218
Tax rate	2%	3%	4%	4%	4%	4%	4%
Accounting changes							
Minority interest/other (expense)							
Net income (a)	1,153	2,209	4,900	6,350	4,887	3,851	5,225
Non rec'g income (expense), after tax		0					
Net income, ex-non-rec'g's	1,153	2,209	4,900	6,350	4,887	3,851	5,225
Preferred dividends (b)							
Net income, reported (a + b)	1,153	2,209	4,900	6,350	4,887	3,851	5,225
EPS	5.76	11.04	19.60	25.40	19.55	15.40	20.90
EPS recurring	5.76	11.04	19.60	25.40	19.55	15.40	20.90
Number of shares (diluted)	200.0	200.0	250.0	250.0	250.0	250.0	250.0
Dividend per share	6.98	6.00	9.80	12.70	9.77	7.70	10.45

Source: Company reports, HSBC

SAFCO: Cash flow statement (SARm)

	2006	2007	2008e	2009e	2010e	2011e	2012e
Operating activities							
Net Income	1,151	2,209	4,900	6,350	4,887	3,851	5,225
Adjustment for:							
Depreciation and amortization	194	343	344	344	344	344	344
Share of net income of associated companies	(174)	(164)	(300)	(335)	(274)	(214)	(202)
Net interest income	(36)	(46)					
Changes in operating assets and liabilities							
Account receivables	(101)	(181)	(543)	(433)	339	210	(523)
Inventories	(33)	(126)	85	(168)	(21)	(29)	(282)
Prepayments and intangibles assets	(21)	(5)	0	0	0	0	0
Account payables and other liabilities	(8)	319	(16)	413	53	70	693
Other operating cash flows							
Home ownership program receivable	22	24	0	0	0	0	0
End of service indemnities	29	52	0	0	0	0	0
Zakat paid	(20)	(29)	(102)	(132)	(102)	(80)	(109)
Net cash provided by operating activities	1,005	2,397	4,368	6,039	5,225	4,152	5,146
Financing activities							
Payments on long-term debt	(400)	(265)	0	0	0	0	0
Proceeds from issuance of long term debt	943	0	0	0	0	0	0
Issuance of common stock			500	0	0	0	0
Repurchase of common stock							
Dividends paid	(1,396)	(1,200)	(2,450)	(3,175)	(2,443)	(1,925)	(2,613)
Other							
Net cash used in financing activities	(853)	(1,465)	(1,950)	(3,175)	(2,443)	(1,925)	(2,613)
Investing activities							
Capital expenditures	(247)	(25)	(2,525)	(3,322)	(3,322)	(3,322)	(822)
Investments in associated companies, net	350	25	188	188	188	188	188
Interest income	36	46					
Other							
Net cash used in investing activities	138	46	(2,337)	(3,134)	(3,134)	(3,134)	(634)
Effect of exchange rate changes on cash		0	0	0	0	0	0
Increase (decrease) in cash & equivalents							
Net increase (decrease) in cash and cash equivalents	290	978	80	(270)	(353)	(908)	1,899
Cash at beginning of period	304	594	1,572	1,652	1,382	1,029	122
Cash at end of period	594	1,572	1,652	1,382	1,029	122	2,021
Sources and uses of cash, SAR/share							
Operating cash flow	5.02	11.99	17.47	24.16	20.90	16.61	20.58
Capex	(1.24)	(0.12)	(10.10)	(13.29)	(13.29)	(13.29)	(3.29)
Distributable cash	3.79	11.86	7.37	10.87	7.61	3.32	17.30
Cash flow ratios							
Working capital increase/sales change		0.4%	-17.1%	-9.6%	-24.3%	-26.6%	-4.8%
Reinvestment rate (capex/gross fixed assets)	4.8%	0.5%	32.3%	29.8%	23.0%	18.7%	4.4%
Capex/sales	13.5%	0.7%	40.1%	40.3%	49.5%	57.6%	10.1%
Depreciation/sales	10.6%	9.8%	5.5%	4.2%	5.1%	6.0%	4.2%
D&A less capex	(53)	318	(2,181)	(2,978)	(2,978)	(2,978)	(478)
Cash from operations less capex (distributable cash)	758	2,372	1,843	2,717	1,903	830	4,324
Distributable cash flow per share	3.79	11.86	7.37	10.87	7.61	3.32	17.30
Cash from operations less capex less dividends	(638)	1,172	(607)	(458)	(540)	(1,095)	1,711
Cash from operations less capex less div. per share	(3.19)	5.86	(2.43)	(1.83)	(2.16)	(4.38)	6.85
Dividend payout ratio	121.1%	54.3%	50.0%	50.0%	50.0%	50.0%	50.0%

Source: Company reports, HSBC

SAFCO: Balance sheet (SARm)

	2006	2007	2008e	2009e	2010e	2011e	2012e
Assets							
Bank balances and cash	594	1,572	1,652	1,382	1,029	122	2,021
Accounts receivable	675	855	1,398	1,830	1,491	1,281	1,805
Inventories	268	394	309	477	499	527	810
Prepayments and other assets	19	12	12	12	12	12	12
Total current assets	1,555	2,833	3,371	3,702	3,031	1,942	4,647
Property, plant & equipment, gross	5,173	5,303	7,828	11,149	14,471	17,793	18,615
Less: accumulated depreciation	1,148	1,491	1,835	2,179	2,523	2,867	3,211
Property, plant & equipment, net	4,026	3,812	5,993	8,970	11,948	14,926	15,404
Investments and financial assets	908	1,282	1,282	1,282	1,282	1,282	1,282
Intangible assets	63	75	75	75	75	75	75
Home ownership program receivable	176	152	152	152	152	152	152
Total assets	6,729	8,153	10,873	14,181	16,489	18,377	21,560
Liabilities							
Current portion of long-term debt	177	148	148	148	148	148	148
Accounts payable and other liabilities	412	775	759	1,172	1,224	1,295	1,988
Total current liabilities	589	923	907	1,320	1,373	1,443	2,136
Long-term debt	1,063	826	826	826	826	826	826
End of service indemnities	337	389	389	389	389	389	389
Total liabilities	1,989	2,139	2,123	2,536	2,589	2,659	3,352
Share capital	2,000	2,000	2,500	2,500	2,500	2,500	2,500
Statutory reserve	1,000	1,000	1,000	1,000	1,000	1,000	1,000
General reserve	545	545	545	545	545	545	545
Unrealized gains from investments in financial inst.	140	406	341	229	178	178	156
Retained earnings	1,054	2,064	4,364	7,371	9,677	11,496	14,007
Shareholders' equity	4,739	6,014	8,750	11,645	13,900	15,718	18,208
Total liability and shareholders equity	6,729	8,153	10,873	14,181	16,489	18,377	21,560
	0	0	0	0	0	0	0
Financial leverage analysis							
Net debt	646	(597)	(678)	(407)	(54)	853	(1,046)
Net debt per share	3.23	(2.99)	(2.71)	(1.63)	(0.22)	3.41	(4.18)
Book value per share	23.70	30.07	35.00	46.58	55.60	62.87	72.83
Net debt/(net debt + equity)	-16%	9%	7%	3%	0%	-6%	5%
LTD/(LTD + equity)	18%	12%	9%	7%	6%	5%	4%
Total debt/EBITDA	1.0	0.4	0.2	0.1	0.2	0.2	0.2
EBIT/interest expense	27.5	73.3	599.5	69.9	35.5	42.1	90.9
EBITDA/interest expense	32.9	85.2	642.5	73.8	38.1	46.0	96.9
Working capital analysis							
Working capital	966	1,909	2,464	2,381	1,658	499	2,511
Current ratio	2.6	3.1	3.7	2.8	2.2	1.3	2.2
Trade working capital	530	474	948	1,136	766	514	627
Trade working capital turnover	3.5	7.0	8.8	7.9	7.1	9.0	14.2
Accounts receivable days sales outstanding	134.4	88.8	81.1	81.1	81.1	81.1	81.1
Accounts receivable turnover	2.7	4.1	4.5	4.5	4.5	4.5	4.5
Inventory cost of sales days outstanding	178.6	137.3	153.7	111.4	132.3	131.5	111.6
Inventory turnover	2.0	2.7	2.7	2.7	2.7	2.7	2.7
Accounts payable days outstanding	275.1	321.7	331.8	331.8	331.8	331.8	331.8
Accounts payable turnover	1.3	1.1	1.1	1.1	1.1	1.1	1.1
Return on capital							
Return on capital (ROC)	18.7%	17.3%	25.6%	42.4%	45.5%	31.0%	21.5%
Return on equity (ROE)	25.1%	22.1%	30.3%	48.1%	50.4%	33.9%	23.2%
Return on assets (ROA)	17.5%	16.0%	23.5%	39.2%	42.0%	28.8%	19.7%

Source: Company reports, HSBC

Glossary of terms

ABS: Acrylonitrile-butadiene-styrene terpolymer. An engineering plastic known for its ductility, impact resistance, thermal and chemical resistance, and glossy surface.

Active ingredient: A finished but unformulated pharmaceutical or agrichemical compound that “endows” its properties.

Adhesives: A material used to bond two solids together.

Alkylate: Gasoline blend stock component manufactured by chemically joining several short chain molecules such as propylene and butylene.

Alkylation: The conversion of lighter petroleum hydrocarbons into heavier hydrocarbons. This process is primarily used to produce components of gasoline that increase octane.

Alloy: A macroscopically homogeneous mixture or solid solution, usually of two or more metals.

Ambient atmospheric conditions: Generally refers to room temperature or pressure.

Amorphous: Having no clear shape.

Annealing: The process of heating a material just below its heat distortion point to relieve stresses.

Aromatics: An organic compound that has a hexagonal ring of carbon atoms; for example, benzene.

Atom: The smallest part of an element that can take part in a chemical reaction. The atom consists of three fundamental particles: the proton, the neutron, and the electron. There are 92 different kinds of naturally occurring atoms (elements).

Base chemical: Chemical building blocks from which many downstream products are made; for example, ethylene and benzene.

Benzene: Used as a feedstock in the production of many petrochemicals, plastics, and familiar consumer products.

Biocides: Chemicals used to kill bacteria.

Biotechnology: The application of scientific and engineering principles to the processing of materials by biological agents to provide goods and services. In terms of chemical engineering, biotechnology refers to the use of a biological catalyst to bring about a desired chemical transformation.

Bitumen: Mixture of hydrocarbons found in asphalt or tar used for surfacing roads or waterproofing.

Blending: Forming a uniform mixture so that constituents are indistinguishable from each other.

Blow molding: A type of processing for plastic resin that uses air to conform hot plastic to the shape of the mold. Product examples include milk bottles, shampoo bottles, and children’s toys.

Bottlenecks: A limiting factor. Term used in industry to refer to any factor that limits production.

Brownfield plant: Refers to redevelopment or a site that has an existing industrial development located on it.

Builder: A chemical used in the manufacture of detergents.

Capacity utilization: Percentage of available capacity used for production. Capacity utilization = (production/capacity)*100%.

Captive market: A market that over the short term has a limited choice of suppliers.

Catalyst: A substance that accelerates the rate of chemical reactions.

Chemical: A substance with a distinct molecular composition that is used by or produced in a chemical process.

Chiral: An asymmetric object or molecule.

Chlor-alkali: Chemistry of chlorine and caustic soda. Chlorine is mainly used in the production of vinyls, and caustic soda is used for a variety of applications, with bleaching pulp and paper being the largest one.

Colloid: A particle between several nm and several mm in size, such as polymer latex. Colloids play an important role in numerous products, including polishing slurries, glasses, paints, emulsions, and foods, for example.

Commodity chemicals: Chemicals that are sold in bulk with little differentiation between suppliers and generally lower margins than specialty chemicals (tend to be dominated by large producers with economies of scale). Competitive advantage is gained through market share, economies of scale, feedstock cost reductions, or logistics advantages.

Co-monomer: A monomer added to the starting material to alter the final product.

Complex intermediates: Intermediates that have undergone further processing and refining.

Compound: A substance that is made of two or more elements chemically bonded together.

Crackers: Production facilities for the manufacture of large volumes of petrochemicals from either oil or gas feedstocks.

Cracking: The process of splitting long chains of organic molecules (ie, naphtha) into smaller molecules (ie, ethylene).

Cryogenic separation: Separation of materials based on differences in freezing points.

Crystals: Solids that have a regular polyhedral shape. All crystals of the same substance grow so that they have the same angles between their faces.

Cumene: Derivative of benzene used in the manufacture of phenol and acetone.

Curing: Process of converting a resin from a flowable mass to a tack-free solid by addition of a curing agent.

De-bottlenecking: Process of removing factors limiting production.

Dehydration: Removal of water from a substance by a chemical reaction.

Dehydrogenation: A chemical reaction in which hydrogen is removed from a compound. Dehydrogenation of organic compounds converts single carbon-carbon bonds into double bonds. Used to produce propylene from propane.

Derivative: Chemical compound derived or made from other chemicals. Polyethylene is an ethylene derivative.

De-stocking: Bringing down inventory levels.

Diluent: A modifier added to a resin to lower the viscosity (thin it down).

Disproportionation: A method used in the production of benzene whereby a compound is simultaneously oxidized and reduced.

Distillation: A method used to separate two or more substances in a mixture by vaporizing followed by condensation.

Dopant: The impurities added to silicon during the manufacturing of a semiconductor to increase or decrease various properties such as electrical conductivity. Dopants may include arsenic, antimony, bismuth, and/or phosphorus.

Downstream activities: Refers to processing of hydrocarbons such as crude oil and natural gas into compounds that form petrochemical feedstocks or other usable products.

Drying: Removal of small quantities of water/solvents from a sample by physical or chemical means.

Effective capacity: Actual capacity taking into account planned and unplanned shutdowns.

Effluent: The waste product produced during a chemical process.

Elastomer: A material that can be stretched to at least twice its original length.

Electro chemical unit (ECU): Also called electrochlor unit. The chlor-alkali process produces chlorine and caustic soda in set ratios of 1 unit of chlorine per 1.1 unit of caustic. The combination of 1 unit of chlorine and 1.1 unit of caustic soda is referred to as an ECU.

Electrolysis: The passing of an electric current through a solution, which then attracts negative ions to the positive terminal (anode) and positive ions to the negative terminal (cathode).

Electron: Negatively charged particle found in the nucleus of an atom.

Electronegativity: Having a negative electric charge.

Element: A pure substance that cannot be broken down chemically into anything simpler.

Endothermic: A chemical reaction that requires heat, drawing it from the surroundings.

Epitaxy: The chemical vapor deposition of a substance. Silicon epitaxy is deposited onto silicon wafers used to manufacture semiconductor devices, such as discrete transistors or integrated circuits.

Ethylbenzene (EB): A colorless organic liquid with a sweet, gasoline-like odor. The greatest use – over 99% – of ethylbenzene is to make styrene, another organic liquid used as a building block for many plastics. It is also used as a solvent for coatings and in making rubber and plastic wrap.

Ethylene: A two carbon molecule with a reactive double bond, that is, C=C (C₂H₄).

Ethylene dichloride (EDC): Clear colorless liquid with a sweet odor and taste. Principally used as a raw material for PVC production.

Ethylene glycol (EG): Key derivative of ethylene with a variety of end-use applications.

Ethylene oxide (EO): An industrial chemical used in sterilizing medical items, fumigating spices, and manufacturing other chemicals. Pure ethylene oxide is a colorless gas at room temperature and a mobile, colorless liquid below 54 degrees Fahrenheit.

Exothermic: A chemical reaction that liberates heat, transferring it to the surroundings.

Expandable polystyrene (EPS): Plastic used in a range of products from bicycle helmets to point of purchase displays, from construction applications to speciality packaging, toys, electronics, and appliances.

Extenders: Inert fillers added to resins for the purpose of increasing the volume of the resin mix.

Extrusion: A type of processing for plastic in which melted plastic is continuously pushed through holes in a metal plate, or die. Extrusion applications vary from water and gas pipe to thin films like grocery bags.

Feedstock: Basic raw material that is converted or altered into another product in a chemical process.

Fermentation: The production of alcohol from sugar or similar substance, usually using yeast.

Filament fiber: Polyester fiber made in long lengths and used in woven applications such as garments and carpets.

Fine chemicals: Chemicals produced in small volumes to exacting specifications.

Floor price: Generally the lowest price for which a product will trade. The floor price is often equal to the cost of production.

Fluid catalytic cracking (FCC): Refinery process in which crude oil fractions are converted into gasoline. The process requires high temperature and the presence of a catalyst. Propylene is a petrochemical byproduct of FCC.

Fraction: A substance separated in fractional distillation.

Fractional distillation: A process by which components in a chemical mixture are separated according to their different boiling points. Fractional distillation is used to produce gasoline from crude.

Fractionation columns: Columns in which fractionation or chemical separation by boiling point takes place.

Fungible: Something that is exchangeable or substitutable. Used in reference to certain commodity chemicals.

Genomics: The scientific discipline of mapping, sequencing, and analyzing an organism's complete set of genes based on the knowledge of its entire DNA sequence.

GMO: Genetically modified organisms

GPPS, general purpose polystyrene: General-purpose polystyrene is well-suited for a variety of end uses in the consumer electronics, health care, construction, and packaging industries.

Greenfield plant: Capacity added to a site where none existed. Generally includes items such as roads, sewers, and communication equipment that do not have to be added at existing plants.

Halides: A binary chemical compound of a halogen with a more electropositive element or group.

Halogenation: The addition to a molecule of a halogen atom, that is, fluorine, chlorine, bromine, iodine, or astatine.

HDPE, high-density polyethylene: A thermoplastic resin made from ethylene. Commonly used for grocery bags, Tupperware, and milk jugs.

Herbicide: Chemicals used to control weed/foilage growth.

Heterogeneous: Consisting of dissimilar elements or parts; not homogeneous.

HIPS: High-impact polystyrene known for its ease of processing, dimensional stability, impact strength, and rigidity.

Homogeneous: Consisting of similar elements or parts; not heterogeneous.

Homopolymer: A polymer resulting from the polymerization of a single monomer; a polymer consisting substantially of a single type of repeating unit.

Hydrocarbons: Compounds containing only hydrogen and carbon atoms. Hydrocarbons are the basic materials in the oil, gas, and chemical industries.

Hygroscopic: A material that absorbs moisture.

Industrial gases: Gases used in industrial and manufacturing processes such as steel production, semiconductor manufacture, or oil drilling.

Inhibitor: A compound that slows the rate of a chemical reaction.

Injection molding: Injection molding is a process by which we take raw plastic material in the form of small pellets (also referred to as resin), heat it gently to the point where it will flow under moderate pressure, and inject it (push it with a plunger) into a mold.

Inorganic chemistry: Noncarbon-based chemistry.

Input traits: Alteration of plant genetics to create a stronger or more resistant plant, thereby increasing overall crop yield.

Insecticides: Chemicals used to control pests or infestations.

Ion: An atom or group of atoms that has gained or lost one or more electrons, causing it to become negatively or positively charged. Oppositely charged ions attract to form ionic bonds. The ionic method is used to form polymers from monomers during a process called condensation polymerization, which produces water as a byproduct.

Isomer: A compound having the same molecular weight but differing in physical or chemical properties. Isobutane is an isomer of butane.

Isotopes: Different forms of the same element. The different forms behave identically in a chemical manner but have different mass.

Latex: A stable aqueous dispersion used to synthesize rubbers, as well as paper coatings and carpet backing.

LDPE, low-density polyethylene: A thermoplastic resin made from ethylene. Commonly used for food packaging and plastic coatings for paper products.

LLDPE, linear low-density polyethylene: A thermoplastic resin made from ethylene. Commonly used for shrink wrap, trashcan liners, and packaging.

LPG, liquefied petroleum gas: One of the main feedstocks for a petrochemical cracker. It is obtained by the fractional distillation of crude oil.

MDI: A form of polyurethane.

MEG: Mono ethylene glycol (see ethylene glycol).

Merchant market: The external (that is, free) market in which products may be sold.

Metathesis: A chemical reaction between two compounds in which parts of each are interchanged to form two new compounds. Also known as double decomposition.

Methanol: Simplest form of alcohol used in diverse applications, including formaldehyde, MTBE, and acetic acid production.

Mixed xylene: Mixture containing ortho-, para-, and meta-xylene. Used in the production of solvents and gasoline.

Molecule: A molecule is the smallest particle of a chemical compound that can maintain its individual properties and independent existence. A molecule is expressed as a chemical formula, such as H₂O.

Monomer: Base or repeated unit in a polymer. Ethylene is a monomer, which, among other polymers, goes into polyethylene.

MTBE, methyl tertiary butyl ether: Oxygenates, including MTBE, are used in fuels to reduce vehicle exhaust emissions while maintaining high performance.

Nameplate: As stated, usually referring to amount of capacity as stated by the company.

Nanotechnology: The development and use of devices that have a size of only a few nanometres. Frequently used to refer to the building of electronic circuits from single atoms and molecules.

Naphtha: One of the main feedstocks for a petrochemical cracker. It is obtained by the fractional distillation of crude oil.

Natural gas: One of the main feedstocks for a petrochemical cracker. It is obtained directly from natural gas fields.

Neutralization: The process by which an acid and alkali mix to form a neutral substance.

Neutron: Chargeless particle found in the nucleus of an atom.

Nitration: A chemical process that adds nitrogen atoms to a molecule.

Nitrous oxide (Nox): A pollutant produced during crude cracking.

OEM, original equipment manufacturers: Initial production market, rather than a repair or secondary market.

Off-take agreement: Refers to a contractual agreement for one party to supply another with a product within certain conditions such as purity, timing, and volume. It obligates the off-taker to accept the product regardless of market conditions.

Olefin: A product with straight chain hydrocarbons that may have one or more double bonds conferring reactivity.

Organic chemistry: Chemistry based on carbon atoms.

Organometallics: Compounds in which carbon or organic groups are attached to metal or metalloid atoms.

Output traits: This activity uses genetic engineering to change the chemical or nutritional quality of the final crop or product.

Oxidation: A type of reaction where electrons are removed from a molecule or where oxygen atoms are added to a molecule.

Pasteurize: To eliminate disease causing micro-organisms and limit fermentation in liquids by heating.

PET, polyethylene terephthalate: Member of the polyester family commonly used in bottle resin, film, and fibers.

Petrochemical: Any chemical derived from crude oil, crude products, or natural gas. Petrochemicals are used in the manufacture of numerous products such as synthetic rubber, synthetic fibers (eg, nylon and polyester), plastics, fertilizers, paints, detergents, and pesticides.

Phenol: Intermediate chemical whose major derivatives include phenol A, cyclohexanes, and phenolic resin.

Photochemistry: Chemical reactions brought about by the action of light.

Physical properties: Properties not concerned with the chemistry of a product, such as melting point, boiling point, and hardness.

Pigment: Colored, insoluble substance (either organic or inorganic) used to impart color.

Plastics: Synthetic materials with the ability to flow, take shape, and solidify.

Plasticizer: A chemical added to vinyls to make them softer or more pliable.

PO/SM: Propylene oxide/styrene monomer. Usually refers to a production process that results in producing both products.

Polyvinyl chloride (PVC): Part of the vinyls chain. In flexible form, used for film, flooring, auto upholstery, eg; in rigid form, used in siding for houses, and pipes, eg.

Polyethylene: Translucent to clear, tough, waxy solid that is unaffected by water and a wide range of chemicals.

Polymer: Hydrocarbon chain made by the repetition of units called monomers. Polyethylene is an example of a polymer made with ethylene as the repetitive unit or monomer.

Polymerization: Process by which monomers are joined in long chains to form polymers; generally requires high heat or pressure or the presence of a catalyst.

Polypropylene: A polymer with properties making it extremely versatile and able to be used in substitution for wood, metal, glass, and plastics.

Polystyrene: Low-cost plastic made from styrene.

Polyurethane: Any of various resins, widely varying in flexibility, used in tough chemical-resistant coatings, adhesives, and foams.

Preform: Compressed molding compound.

Primer: A coating applied to a bonding surface prior to the application of an adhesive to improve the quality of the bond.

Propane dehydrogenation: The process of forming propylene from propane.

Propylene: A three carbon molecule with a reactive double bond, that is $C=C=C$ (C_3H_6) used to make gasoline components or as a feedstock for petrochemicals.

Propylene oxide (PO): An alkyl epoxide used principally as a chemical intermediate.

Proton: Positively charged particle found in the nucleus of an atom.

Pyrolysis: The thermal decomposition of organic material through the application of heat in the absence of oxygen. All polymers are subject to thermal degradation at some level of temperature, producing small molecular fragments that appear as an organic vapor.

Reduction: A type of reaction where electrons are added to a molecule.

Resin: Intermediate products used to impart a particular characteristic to the final product, eg, heat resistance and adhesive properties.

Salt domes: Naturally occurring underground salt deposits, which are solution mined for salt. The holes left in underground salt domes form caverns that are used for petrochemical storage.

Sealants: Material that is initially fluid or semifluid, placed between two opposing solid materials, becomes solid itself (by solvent evaporation or chemical reaction), bonds to the surfaces to which it is applied, and accommodates joint movement. Prevents excessive absorption of adhesives or penetration of liquid or gaseous substances.

Slurry: A liquid containing abrasive solids that is typically used in the chemical mechanical polishing (CMP) process. CMP is a method of removing layers of solid for the purpose of surface planarization in the production of semiconductors.

Solid polystyrene (SPS): Low cost, versatile plastic made from styrene.

Soluble: A substance that is capable of being dissolved in some solvent (usually water).

Solvent: A liquid that dissolves another substance to form a solution.

SPA: Solid phosphoric acid.

Speciality chemicals: Chemicals produced in small tonnage, having higher unit values and used

for critical applications requiring stringent performance criteria.

Staple fiber: Polyester fiber made in short lengths (1-1.5 inches) and used in nonwoven applications such as filling for pillows, diapers, and jackets.

Styrene: Clear liquid used in polystyrene production and in products that are processed into packaging, coatings, molded products, and adhesives, eg.

Styrene acrylonitrile (SAN): This material is used for making transparent barrels of expensive pens due to its greater strength and clarity.

Styrene-butadiene latex (SBL): A water-based polymer produced by emulsion polymerisation from styrene and butadiene. Major uses of SBL include carpet backing and paper coating.

Styrene-butadiene rubber (SBR): A high molecular weight polymer. Because of its excellent abrasion resistance, SBR is widely used in automobile and lorry (truck) tyres (tires), belting, flooring, wire and cable insulation, and footwear, and as a paper coating.

Substrate: The body or base layer of an integrated circuit, onto which other layers are deposited to form the circuit. The substrate is usually silicon, though sapphire is used for certain applications, particularly military, where radiation resistance is important.

Sulfonation: A chemical process that adds sulfur atoms to a molecule.

Surfactant: Short for surface active agent, a molecule that has both water-loving and water-hating properties.

Synthesis gas: A mixture of carbon monoxide, hydrogen, carbon dioxide, and other gases.

Systemics: The branch of science that addresses holistic systems. Wholes need to be

conceptualized and studied as systems because they are not merely the sum of their parts.

TDI: A form of polyurethane.

Tertiary butyl alcohol (TBA): Widely used in the manufacturing of perfumes and a variety of cosmetics. Also used as a raw material in MTBE production.

Thermoplastic: Resin produced via polymerization of monomers. A thermoplastic material softens on heating and hardens upon cooling.

Thermoset: Resin produced via polycondensation of monomers. It is insoluble and commonly used in nonmolded applications such as industrial paints and varnishes.

Transgenic crops: A crop that has been modified by genetic engineering to contain DNA from an external source.

UHMW-PE: Ultra high molecular weight polyethylene with molecular weight in the 1,500,000-3,000,000 range.

ULDPE: Ultra low-density polyethylene. Relatively new class of polyethylene with densities between 0.89 and 0.915. Provides flexibility and toughness at a wide range of temperatures and is mainly used in film and sheet applications.

Upstream activities: Refers to exploration and production of hydrocarbons such as crude oil and natural gas.

Vinyl chloride monomer (VCM): Part of the vinyls chain used in PVC production.

World-scale plant size: Plant size necessary to achieve economies of scale and be competitive in the global markets. Plant size varies by product.

Xylene: Aromatic compound used in production of solvents and gasoline.

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*A stock will be classified as volatile if its historical volatility has exceeded 40%, if the stock has been listed for less than 12 months (unless it is in an industry or sector where volatility is low) or if the analyst expects significant volatility. However,

stocks which we do not consider volatile may in fact also behave in such a way. Historical volatility is defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility has to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Prior to this, from 7 June 2005 HSBC applied a ratings structure which ranked the stocks according to their notional target price vs current market price and then categorised (approximately) the top 40% as Overweight, the next 40% as Neutral and the last 20% as Underweight. The performance horizon is 2 years. The notional target price was defined as the mid-point of the analysts' valuation for a stock.

From 15 November 2004 to 7 June 2005, HSBC carried no ratings and concentrated on long-term thematic reports which identified themes and trends in industries, but did not make a conclusion as to the investment action that potential investors should take.

Prior to 15 November 2004, HSBC's ratings system was based upon a two-stage recommendation structure: a combination of the analysts' view on the stock relative to its sector and the sector call relative to the market, together giving a view on the stock relative to the market. The sector call was the responsibility of the strategy team, set in co-operation with the analysts. For other companies, HSBC showed a recommendation relative to the market. The performance horizon was 6-12 months. The target price was the level the stock should have traded at if the market accepted the analysts' view of the stock.

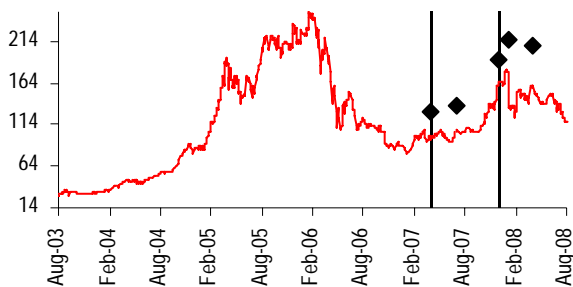
Rating distribution for long-term investment opportunities

As of 15 August 2008, the distribution of all ratings published is as follows:

Overweight (Buy)	53%	(20% of these provided with Investment Banking Services)
Neutral (Hold)	33%	(17% of these provided with Investment Banking Services)
Underweight (Sell)	14%	(8% of these provided with Investment Banking Services)

Share price and rating changes for long-term investment opportunities

Saudi Basic Industries Co (2010.SE) share price performance SAR vs HSBC rating history



Source: HSBC

Recommendation & price target history

From	To	Date
N/A	Overweight (V)	12 April 2007
Overweight (V)	Overweight	17 December 2007
Target Price	Value	Date
Price 1	129.17	12 April 2007
Price 2	137.50	14 July 2007
Price 3	191.67	17 December 2007
Price 4	216.67	18 January 2008
Price 5	210.00	14 April 2008

Source: HSBC

Industries Qatar QSC (IQCD.QA) share price performance QAR vs HSBC rating history



Source: HSBC

Recommendation & price target history

From	To	Date
N/A	Overweight	27 February 2008
Target Price	Value	Date
Price 1	190.91	27 February 2008
Price 2	190.00	07 April 2008
Price 3	210.00	28 April 2008
Price 4	225.00	11 August 2008

Source: HSBC

HSBC & Analyst disclosures

Disclosure checklist

Company	Ticker	Recent price	Price Date	Disclosure
INDUSTRIES QATAR QSC	IQCD.QA	179.60	14-Aug-2008	6, 7
SAUDI BASIC INDUSTRIES CO	2010.SE	118.75	14-Aug-2008	2, 5, 6, 7, 11

Source: HSBC

- 1 HSBC* has managed or co-managed a public offering of securities for this company within the past 12 months.
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