

Saudi Basic Industries Co

Overweight (V)

Target price (SAR)	155.00
Share price (SAR)	119.75
Potential total return (%)	29.4

Dec	2006a	2007e	2008e
HSBC EPS	8.07	7.87	6.30
HSBC PE	14.8	14.5	17.1
Performance	1M	3M	12M
Absolute (%)	-4.0	17.4	-47.7
Relative [^] (%)	7.6	13.4	7.6

Note: (V) = volatile (please see disclosure appendix)

12 April 2007

Peter Hutton*

Analyst
HSBC Saudi Arabia Limited
+966 1 225 7170
peterhutton@hsbc.com

Hassan I. Ahmed

Analyst
HSBC Securities USA
+1 212 525 5359
hassan.ahmed@us.hsbc.com

*Employed by a non-US affiliate of HSBC Securities (USA) Inc, and is not registered/qualified pursuant to NYSE and/or NASD regulations.

Issuing office: Saudi Arabia

Disclaimer & Disclosures.

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, that form part of it.

Chemical pro-action

- ▶ **World-beating economics have supported rapid growth; as SABIC brings on more plants, its competitive advantage against marginal producers is now even stronger**
- ▶ **Normalised earnings are a key driver for investment; we estimate 9.5% CAGR to 2010 – catching up ‘peak’ earnings in 2006/07 in just three years**
- ▶ **SABIC is a core holding in the Saudi Index – and as a global leader in a global sector would merit a place in global funds; we initiate coverage with an Overweight (V) rating and a target price of SAR155**

SABIC has grown in just 25 years to become a global player in a global industry. Over 85% of its sales go to international markets, especially in the Far East, where it is able to supply its plastic more cheaply than the local majors.

Higher oil prices have increased SABIC’s cost advantage on its ethane-based production to around USD450 per tonne of ethylene, the key link in the petrochemical chain. SABIC is participating strongly in capacity increases in the Middle East, which we estimate will double the region’s share of capacity to 20% by 2010/11. This will reduce industry utilisations and margins, but enhance SABIC’s global competitive advantage.

Furthermore, competing marginal plants are now even older, more inefficient and easier to close, weakening the competition and supporting recovery in industry margins.

Our forecasts over 2006-09 reflect a period of margin decline and are unflattering to SABIC, but even on this basis the company performs well and generates strong levels of cash. Normalised EV/EBITDA for 2009e is 8.9x, and on the more appropriate EV/EBIDA comparison, SABIC is trading at a 43% discount to Dow Chemical.

Representing around 25% of the market cap of the Saudi Tadawul Index, SABIC is in our view exceptionally placed to benefit from the development of the market, and is likely to form the first stopping point for indirect participation by foreign investors in this important emerging market. Only Saudi and GCC investors can hold the stock directly, but more direct exposure is likely to become available through managed vehicles for foreign investors. We believe it deserves inclusion in international and emerging market funds. We initiate with an Overweight (V) rating and a SAR155 target price.

Index [^]	SASEIDX
Index level	
RIC	2010.SE
Bloomberg	SABIC AB

Source: HSBC

Enterprise value (SARm)	322586
Free float (%)	100
Market cap (USDm)	77,328
Market cap (SARm)	290,000

Source: HSBC

Financials & valuation

Financial statements

Year to	12/2006a	12/2007e	12/2008e	12/2009e
Profit & loss summary (SARm)				
Revenue	86,527	89,965	84,162	79,502
EBITDA	37,179	39,717	34,385	25,566
Depreciation & amortisation	-6,116	-7,019	-6,583	-7,800
Operating profit/EBIT	31,063	32,698	27,802	17,767
Net interest	-1,813	-1,805	-1,454	-1,278
PBT	31,908	32,564	27,457	17,224
HSBC PBT	31,748	32,570	27,422	17,166
Taxation	-1,050	-1,095	-745	-357
Net profit	20,319	20,678	17,537	11,004
HSBC net profit	20,166	20,684	17,503	10,948

Cash flow summary (SARm)

Year to	12/2006a	12/2007e	12/2008e	12/2009e
Cash flow from operations	37,002	38,281	34,454	25,349
Capex	-18,747	-29,038	-24,788	-12,650
Cash flow from investment	-17,327	-29,038	-24,788	-12,650
Dividends	-15,293	-15,582	-15,283	-14,162
Change in net debt	-4,382	4,667	4,507	728
FCF equity	15,650	7,573	8,557	11,964

Balance sheet summary (SARm)

Year to	12/2006a	12/2007e	12/2008e	12/2009e
Intangible fixed assets	5,436	5,436	5,436	5,436
Tangible fixed assets	79,081	101,099	119,304	124,154
Current assets	74,929	60,981	50,307	46,409
Cash & others	42,278	28,163	19,589	16,165
Total assets	167,014	175,085	182,616	183,568
Operating liabilities	26,168	26,130	25,190	25,398
Gross debt	39,445	29,997	25,930	23,234
Net debt	-2,833	1,834	6,341	7,069
Shareholders funds	72,908	83,399	90,241	90,014
Invested capital	90,999	113,223	130,269	134,437

Ratio, growth and per share analysis

Year to	12/2006a	12/2007e	12/2008e	12/2009e
Y-o-y % change				
Revenue	10.6	4.0	-6.5	-5.5
EBITDA	4.1	6.8	-13.4	-25.6
Operating profit	6.5	5.3	-15.0	-36.1
PBT	10.0	2.1	-15.7	-37.3
HSBC EPS	6.4	2.6	-15.4	-37.5

Ratios (%)

Year to	12/2006a	12/2007e	12/2008e	12/2009e
Revenue/IC (x)	1.0	0.9	0.7	0.6
ROIC	35.5	30.9	22.2	13.1
ROE	29.8	26.5	20.2	12.1
ROA	21.5	19.4	15.7	9.9
EBITDA margin	43.0	44.1	40.9	32.2
Operating profit margin	35.9	36.3	33.0	22.3
EBITDA/net interest (x)	20.5	22.0	23.6	20.0
Net debt/equity	-2.8	1.6	5.0	5.4
Net debt/EBITDA (x)	-0.1	0.0	0.2	0.3
CF from operations/net debt		2087.3	543.3	358.6

Per share data (SAR)

Year to	12/2006a	12/2007e	12/2008e	12/2009e
EPS reported (fully diluted)	8.13	8.27	7.01	4.40
HSBC EPS (fully diluted)	8.07	8.27	7.00	4.38
DPS	3.88	4.07	4.28	4.49
NAV	29.16	33.36	36.10	36.01

Key forecast drivers

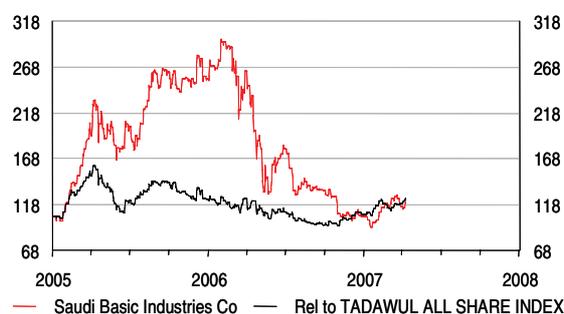
Year to	12/2006a	12/2007e	12/2008e	12/2009e
Chemicals volumes (ktpa)	43,000	45,885	48,582	52,455
Ethylene Price (Spot CIF Asia)	1,168	950	820	720
SABIC Chemicals Cash Margin	252	231	180	170
Average Metals price \$/tonne	520	520	480	440

Valuation data

Year to	12/2006a	12/2007e	12/2008e	12/2009e
EV/sales	3.7	3.7	4.0	4.3
EV/EBITDA	8.6	8.3	9.9	13.5
EV/IC	3.5	2.9	2.6	2.6
PE*	14.8	14.5	17.1	27.3
P/NAV	4.1	3.6	3.3	3.3
FCF yield (%)	4.8	2.3	2.6	3.5
Dividend yield (%)	3.2	3.4	3.6	3.8

Note: * = Based on HSBC EPS (fully diluted)

Price relative



Source: HSBC

Note: price at close of 10 Apr 2007

Disclaimer & Disclosures. This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, that form part of it.

Contents

Investment summary	4	Appendix 1: Competitive Advantage in Global Petrochemicals	24
The Rise and Rise of Middle East Petrochemicals	7	Introduction to the Global Petrochemical Industry	24
Building on competitive advantage	7	Economics of the Petrochemical Industry	27
Growth in Middle East capacity to today	7	Demand	27
Sources of competitive advantage	8	Supply	27
What projects are there, and will they all go ahead?	9	Prices reflect industry structure	28
Is this new wave of projects too much?	11	Regional Imbalances and importance of trade	28
Ethylene cost curve	12	Industry margins are linked to overall supply and demand	29
Does the cost curve really determine who produces?	12		
Will this time be different?	12	Appendix 2: SABIC's Business Detail	34
Company Analysis	14	Petrochemical Business	34
Background and development	14	Basic Chemicals	34
Business Structure	15	Polymers	36
Chemicals Earnings	16	Intermediates	39
Metal earnings forecast for SABIC	18	Fertilizers.	41
Valuation & Investment Issues	19	Metals Sector:	42
Earnings Outlook	19	Business Description	42
Valuation	20	Middle Eastern Market for Steel	42
DCF and assumptions	20	Appendix 3	44
EV/EBITDA	20	Glossary of Terms	44
EV/EBIDA	21	Disclosure appendix	54
Sensitivities	21	Disclaimer	59
Risks	22		
Investment Drivers	23		

Investment summary

- ▶ World-beating production economics have supported rapid growth in the global petrochemicals market since the 1980s. As SABIC prepares to bring on major new capacity, its competitive advantage against marginal producers is now even stronger
- ▶ Marginal producers elsewhere in the world, who are faced with older plant and worse economics, will be worst hit and are already showing signs of looking to exit
- ▶ As a global player in a global industry, exposure to SABIC should be an active decision by international fund managers, and access is likely to develop – we initiate with an Overweight (V) and a target price of SAR155

Since starting production in the 1980s, SABIC has combined one of the cheapest sources of production with investment in large-scale plants and relative proximity to the fast-growing markets in Asia. This has driven exceptional growth in SABIC's industrial position, quadrupling its capacity over the last 15 years and taking it to become one of the acknowledged leaders in the global industry. In the next three years, SABIC plans to increase its total capacity by nearly 50%.

SABIC is facing growing competition as other producers in the Middle East also plan to bring on new capacity, which will raise the region's share

of global ethylene capacity from 10% to 20% by 2010. Along with increases elsewhere in Asia, this contributes to a 4.8% growth in capacity against our expected 3.7% in demand, reducing industry operating rates to 88% in 2009, bringing down margins from their present 93%.

Investors are concerned that margins will decline to levels seen in previous cycles. Our forecast suggests utilisation will be moderately higher than in 2000/2001, but more importantly there has been a fundamental shift in the industry cost curve. Higher oil prices and gas prices in the USA add USD150/tonne of ethylene to the breakeven

Exhibit 1: SABIC Normalised earnings forecast

		2006	2007E	2008E	2009E
EBITDA	SAR mill	37,179	33,427	35,475	38,216
EBIT	SAR mill	31,063	26,418	28,892	30,416
Net Income	SAR mill	20,319	16,333	18,486	20,184
Cash from Ops	SAR mill	37,002	33,220	36,720	40,171
Normalised EPS	SAR / share	8.1	6.5	7.4	8.1
EV/EBITDA		8.3x	9.9x	13.5x	8.9x

Source: Company, HSBC

Exhibit 2: EV/EBIDA

	2007E	2008E	2009E	Normalised (2009E)
SABIC	8.4x	10.0x	13.6x	9.0x
Target Price	9.9x	11.6x	15.5x	11.3x
Dow	10.7x	13.0x	15.6x	15.7x
Lyondell	13.0x	17.9x	22.0x	11.3x
Du Pont	12.2x	13.0x	13.8x	11.9x

Source: HSBC

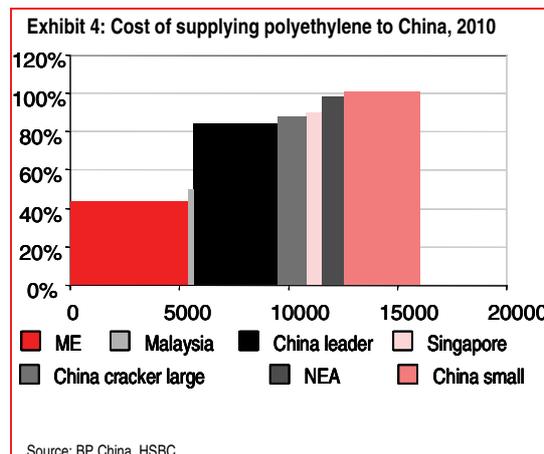
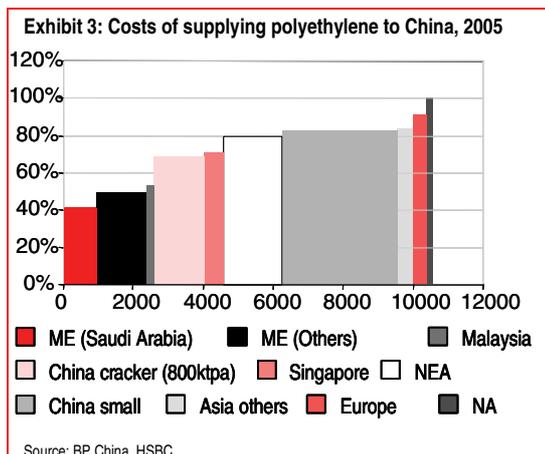
costs of marginal producers, a figure which goes straight to the operating margin of industry leaders, notably SABIC.

SABIC can supply key export market in China at below the costs of even the cheapest domestic producers. We estimate that SABIC has a production cost advantage of USD450/tonne against marginal capacity in US, Europe and Asia, and it is these producers who will face the strongest competitive pressure. In previous cycles, marginal producers have been slow to exit or failed to do so altogether, continuing to produce despite making losses even at the cash margin level. We have been sceptical in the past of arguments that “this time it will be different”, but we see radical changes in the industry today, which strongly suggest that for the leading companies, not only will margins be higher, but the duration shorter than we have seen in previous downturns. With many crackers already close to the limit of their normal operating life six years ago, the average age of ethylene plants in the USA is now 28 years. Not only does this mean that plants are more depreciated and so the need for restructuring charges is lower, but the environmental pressures have shifted, with the focus on the potential damage from ongoing operations of old capacity outweighing the obstacle of closure and clean up. The decision to

close a plant is now a lot easier than it was before, and we already see signals that operators of marginal capacity are looking to exit.

Already amongst the group of advantaged producers, we see SABIC as having the ability to distinguish itself further. It combines new world-scale plants and access to cheap gas with demonstrated operational experience. Its projects, slightly ahead of the curve in terms of timing, capture better margins and present lower risk to the spike in capital costs. In addition to its leadership in petrochemicals and plastics, SABIC has attractive exposure to the stronger margins being generated in the agricultural sector from its fertilizer business, and is also the leading steel producer in the Middle East, having brought on capacity in a period of strong demand in a region which remains in deficit throughout the forecast period.

Despite the expected fall in petrochemicals margins, SABIC remains robust and demonstrates an exceptional ability to generate cash, partly from its more rapid volume growth but principally from its production cost advantages. A key driver for underlying valuation and competitor comparison is ‘normalised earnings’, which assesses the performance of a company over the cycle. For this we use the average margin over the last seven years, a period which covers trough, peak and mid-cycle earnings. Normalised earnings grow at 9.5% CAGR to 2010, catching



up 'peak' earnings in just three years.

SABIC is also exceptionally placed to benefit from the potential of the Saudi Arabia market to open to international investors. Saudi Arabia is undergoing significant changes in its investment infrastructure following its entry into WTO in 2005.

Direct investment in most Saudi equities (including SABIC) was opened to GCC nationals in 1997 and from 1999, non-GCC investors were permitted to invest via mutual funds offered by Saudi Arabian banks. The authorities have granted licenses for international funds to operate in the kingdom. Following rapid rises in 2004 and 2005, then a sharp fall in 2006, the market is displaying characteristics similar to those seen in other emerging markets as they began to move towards greater access in a controlled manner.

With a market capitalisation equivalent to around USD80bn, SABIC is the third largest industrial company in the emerging markets (after CVRD and Samsung Electronics), and the largest chemicals company in the world. As comfortably the biggest stock, representing around 25% of the Saudi index, with a demonstrated leadership position in global market of crucial importance to developing markets, we would argue that not holding SABIC is already effectively an active decision, and one which should be more specifically reviewed by global and emerging market funds.

SABIC is trading at a discount to US peers, whose economics it outperforms. On the most appropriate measure in our view, normalised EV/EBIDA, SABIC is at a 43% discount to Dow Chemical on 2009e. Our DCF value of SAR155 implies potential return of 29%, and we initiate coverage with an Overweight (V) rating.

The rise and rise of Middle East petrochemicals

- ▶ Combines cost advantage plus proximity to market
- ▶ New capacity outpaces demand, but will take greater share from existing players than from each other
- ▶ Project risk and feedstock allocation – SABIC is one of best placed in an advantaged region

Building on competitive advantage

Growth in Middle East capacity to today

Petrochemicals production in the Middle East remains a relatively recent phenomenon, although established enough to have proved its global potential.

Apart from some small capacity in Iran, the development of significant integrated ethylene and derivatives production began with the commissioning of SABIC's joint venture capacities at Yanbu and Al Jubail in Saudi Arabia in 1985, owned 50/50 with Exxon and Shell respectively.

From its inception, the Saudi petrochemicals industry was developed specifically to add value to cheap associated gas created by the nation's upstream oil production, which was priced to petrochemicals at 50 cents per mmbtu. Although this was cheaper than commercial gas prices

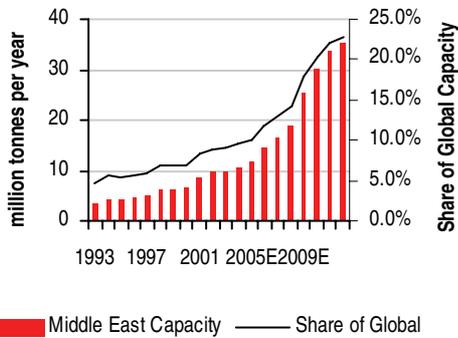
elsewhere in the world, it was not subsidised.

With the necessity for much of this volume being disposal through flaring, transfer into petrochemicals at this price level already represented an uplift from its alternative value.

By 1995, ethylene capacity in the Middle East had increased to 4.4 million tonnes per year, with new plants in Iran, Qatar and Saudi Arabia. Over the past decade, capacity in the region has expanded at 13% CAGR, around three times faster than the growth in global ethylene demand.

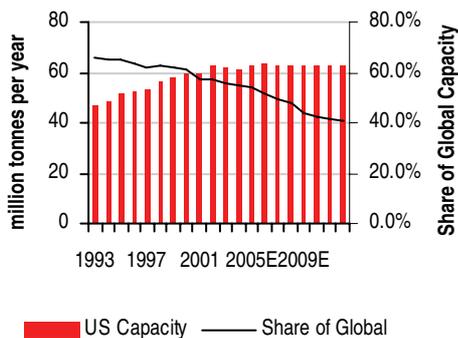
The extent to which this growth has impacted existing areas of production such as United States and western Europe is visible from the different trends in the shares of global ethylene capacity.

Exhibit 5: Ethylene Capacity in Middle East



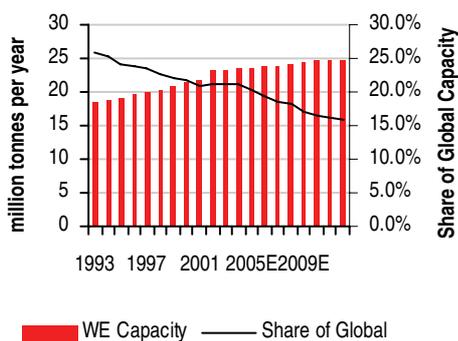
Source: CMAI, HSBC

Exhibit 6: Ethylene Capacity in United States



Source: CMAI, HSBC

Exhibit 7: Ethylene Capacity in Western Europe



Source: CMAI, HSBC

Sources of competitive advantage

This high level of growth in the Middle East has been supported by its competitive advantages in four key areas:

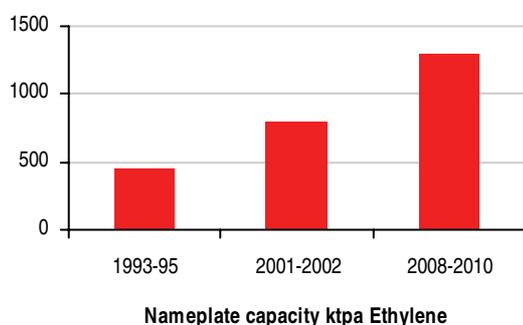
- 1 Access to low-cost feedstock
- 2 Economies of scale
- 3 Geographical location
- 4 Financial structure

The price of gas into Middle Eastern crackers varies, but remains significantly lower than competitors in other regions (with probable exceptions of some specific contracts into sites from the North Sea which represent fairly limited volumes). SABIC now pays 75c/mmbtu for its natural gas (which represents just under 60% of its total petrochemical feedstock). Others in the region will also be paying significantly less than the equivalent in US, where Henry Hub prices averaged USD6.73/mmbtu in 2006 and USD7.20 in 1Q07.

The significant effect of this on production costs and the ability to supply export markets ahead of the competition is analysed in more detail in the *Cost Curve* section in the Petrochemicals Economics on page 9.

Economies of scale derive mainly from the size of plant and the level of site integration. The average ethylene capacity per production site in the Middle East has nearly doubled since 1993 and is already higher than the average for western Europe. New world-scale crackers being installed between now and 2010 are sized up to 1.4 million tonnes per year. This compares to new plants of 400 to 500 ktpa in 1993-95 and around 800 ktpa in 2001-2002.

Exhibit 8: Increasing scale of new ethylene cracker



Source: HSBC, CMAI

This helps to reduce energy, salary, support and depreciation costs per tonne – but is also of a scale which is potentially still more disruptive than we have seen in previous cycles of new capacity.

What projects are there, and will they all go ahead?

We list the expected ethylene cracker projects due to start up in the Middle East over the next four years, along with our estimate of scale and timing.

Exhibit 9: Ethylene projects in Middle East to 2010

Country	Company	Date	Capacity (ktpa)
Iran	Jam Petrochemical	2007	1350
Iran	Kharg Petrochemical	2H 2008	500
Iran	Olefins 8 expansion	1H 2010	1100
Iran	Olefins 11	2H 2010	1200
Kuwait	Equate	4Q 2008	900
Qatar	Ras Laffan Ethylene Co	2H 2008	1300
Abu Dhabi	Borouge	2H 2009	1300
Saudi Arabia	YANSAB (SABIC)	2Q 2008	1300
Saudi Arabia	SHARQ (SABIC)	4Q 2008	1200
Saudi Arabia	Kayan (SABIC)	2009	1350
Saudi Arabia	Tasnee / Sahara	2H 2009	1000
Saudi Arabia	Petro Rabigh	2008/09	1000
Saudi Arabia	SIPChem	2010	900

Source: HSBC

Several factors have the potential to delay some projects in the Middle East. This would have the effect of extending the period of strong margins in the petrochemicals sector, a positive for investors in established companies.

We would caution against relying on optimism on this front, although there remains potential for

delay on some of the later projects. The critical issues are approvals, finance, confirmation of feedstock allocation, project management pressures and economic viability.

Approvals and finance

Projects in this phase are already approved, and finance structure established. SABIC's plants are confirmed as proceeding effectively to plan and can be comfortably funded from SABIC's balance sheet. Three of these projects have announced that they plan to come to market with initial or secondary public offerings: Petro Rabigh (a JV between Saudi Aramco and Sumitomo); Sahara and SIPChem are already quoted companies on the Saudi stock market with plans to issue additional equity. Although the approval process in Iran is not clear, the listed projects in that country are associated with the government, so we do not expect approval to be withheld, even on economic grounds. However, the process is turning out to be slow.

Gas supply

There has been significant debate in Saudi about the availability of gas to support this level of petrochemical investment. Although Saudi Arabia reports reserves of natural gas equivalent to 100 years of existing production and so this would not appear to be an issue, there are questions about the calculation of these reserves, and more practically, the ability to access reserves in the near term. Specific exploration for gas with three international joint ventures has focussed on prospects which are often a long distance from existing and imminent petrochemical demand, for example in the Empty Quarter in the South / South-East interior of the country, whereas the new capacity is on the central coasts. Exploration results from these joint ventures have been disappointing in any case, with little public announcement of success.

Gas supply for the existing and projected capacity is more dependent on existing gas production, either directly from identified gas fields or from associated gas extracted during oil production. This remains a sensitive issue, with little published data. Allocations have been issued by Saudi Aramco, which supplies the gas, and SABIC has confirmed that it has sufficient feedstock volumes for all present expansions. Not all of this incremental supply is natural gas, however. YANSAB and Kayan have large propylene / polypropylene plants associated with the cracker (350 and 430 ktpa Polypropylene respectively), which will require an increase in LNG feedstock in place of ethane, and SHARQ will supply propylene to its Ibn Zahr subsidiary for Polypropylene. This increased exposure to propylene has a solid commercial basis, but in practice is also a reflection that ethane is not unlimited. SABIC anticipate that with the shift, the proportion of natural gas in the total feedstock used will decline from around 55% today to less than 50%. SABIC has confirmed that it has firm volume supply contracts from Saudi Aramco, the national oil and gas producer, which meet the requirements from their three projects.

There has also been some debate about the fact that Saudi Aramco will be starting to compete with SABIC in the petrochemicals sphere (through its Petro Rabigh joint venture), while retaining its position as supplier of natural gas, with the questions this raises over the commercial implications of this situation. However, this symbiotic relationship is not unique in petroleum and petrochemicals, where arms-length contracts exist to supply gas at commercial prices, including discounts to third parties (even competitors), for bulk and reliable off-take. Because of the close integration of the Petro Rabigh facilities to upstream and refining, we would expect their economics to be exceptionally strong, implying the necessity to compete for volume head to head

domestically will be minimal. Instead, we believe both SABIC and Petro Rabigh will be able to supply export markets competitively, and the volume likely to be displaced will be exports from more expensive areas and less efficient local production mainly in Asian markets, but also in US and Europe. Furthermore, we would argue that SABIC remains a crucial element in Saudi Arabia's economic policy. Since its establishment in the 1980s, SABIC has been very effective in meeting the strategic goals set for it by the Kingdom and this record will in practice limit the risk of erosion in its industrial position especially from internal sources.

Project risk

The next level of risk is that of project inflation once the project has been signed. This has become a significant factor throughout the petroleum and petrochemicals industry, and the Middle East is certainly no exception, with hugely escalated costs reported, for example, on Shell's Gas to Liquids 'Pearl' project in Qatar, the cost of which has roughly trebled to around USD18bn. Project costs have been put under severe pressure, not only due to peak demand for major equipment items and underlying raw materials eg steel and specialist metals, but also the constraint on designers, project management capacity and construction workers.

Different projects have different levels of cost protection depending on the extent to which the risk is passed to the project manager through the terms of the contract. A full EPIC contract will provide a relatively fixed fee for all the major phases (Engineering, Procurement, Construction and Installation), but the level of risk passed to contractors on previous projects means that such terms are now either unavailable or prohibitively expensive. Later phased projects are doubly disadvantaged, as they hit peak prices with less protection. SABIC has an advantage in that its

projects (especially SHARQ and YANSAB) were approved and initiated ahead of others in this capex cycle and had 60-80% of their costs locked in.

We do not expect any of these projects to be cancelled. The rise in capex, and additional capacity announced elsewhere, will probably have reduced margins and returns from initial expectations, but also we expect that some of these were approved at a time of lower oil price expectations which will have underestimated the additional margins available to ethane based producers. There is some consensus in the industry that the later projects in Iran are the more economically challenged and so more likely to be postponed for commercial reasons.

Our interpretation of comments from Iran's planning authority is that there is concern that the pace of gas projects from Qatar at the southern end of the shared North Dome field, into projects such as LNG or Gas to Liquids, risks depleting reserves for poorer economic returns. Iran argues, with some justification, that the high non-methane content of the gas makes this a valuable feed into petrochemicals, leaving residual methane with a ready market into electricity generation in Iran, which overall will provide better returns than selling the same gas simply as LNG exports. On this basis, any ranking of projects from the North Dome would put Iranian petrochemicals ahead of Qatar LNG, and for this reason we think Iran will be unwilling to be the one to postpone capacity, unless on the more practical grounds of project and equipment availability.

For these reasons, we assume that these projects will go ahead, with the resultant reduction in global utilisations.

Is this new wave of projects too much?

There is no doubt that, from existing producers' point of view, the wave of new capacity looks

more like a tsunami. Clearly this is too much for the market to absorb without impacting utilisations, especially as there is also new capacity due to come on stream in Asia.

We estimate that utilisations will reduce to 88% in 2009 from 93% in 2006. Based on the historical relationship between global utilisation and industry margins, this implies a reduction in the benchmark margin of 60% to USD200/tonne in 2008/2009.

Is this an argument that this investment should not go ahead, or that equity investors should steer clear of SABIC? We would say not, for the following reasons:

- 1 Efficient development of the industry depends on replacement capacity coming on stream which is at the bottom of the cost curve, ie the best projects should go ahead before the weaker. The growth of Middle East petrochemicals is entirely consistent with this evolution
- 2 The timing of this new capacity is not steady and regular, and will be disruptive
- 3 The greater pressure on existing producers will be a more effective catalyst to industry restructuring than a slow and steady increase in discomfort
- 4 The economics for marginal producers are worse than in previous capacity-led downturns, but better for those producers based on advantaged ethane

Arguments that there is not enough room in the market for this level of new capacity miss the reality of the situation. Actually, the issue is whether there is enough room for existing, aged and high cost capacity to remain in production. In practice, we see several signals that attest to recognition that there is not. For industry leaders

at the low end of the cost curve, we expect this period to remain profitable throughout.

Ethylene cost curve

HSBC has developed an effective model to assess costs across the ethylene industry, using long term historical data and working with industry consultants CMAI.

Because naphtha provides the raw material for so much of the world's ethylene production, particularly at the marginal suppliers, ethylene prices tend to reflect medium to longer term movements in the oil price. This has important implications as it raises the variable cash cost of production, the minimum to which ethylene prices are likely to decline even in a period of overcapacity. For those producers whose feedstock price is based on naphtha, the less efficient will be unable to make their variable cash costs even when the ethylene price is higher than we have seen in previous cycles. In 2000/01, the cost to the marginal producer was around USD450-460 /tonne. At prices of USD50 oil and USD6/mmbtu gas, the marginal cost is estimated to have risen to USD600-625/tonne. For those whose feedstock is based on fixed price gas, this difference goes straight through to the benefit of their margins.

This process is demonstrated by industry data looking at the total cost to supply HDPE into China. This includes not only the production cost advantage for the Middle East, but also freight, duties, etc, to determine the effective cash cost of various elements of global capacity. This demonstrates that although an exporter, the economics of a typical Middle Eastern producer make it the cheapest to supply, a long way ahead even of the leading local producers in China itself. The marginal producers are not exporters, but weaker local producers whose volume is at risk. It will be these higher cost producers who effectively act as swing producers and set the price.

Does the cost curve really determine who produces?

Although the prices will ultimately be set by the cost of supply of the marginal producer, this cost of supply is normally broken down into various distinct components

- 1 Variable cash cost of production – raw materials, energy, freight, payment terms etc
- 2 Fixed cash cost of production – labour, storage, maintenance
- 3 Non-cash cost of production - depreciation
- 4 Profit margin

While in theory the marginal supplier should stop producing when profits become zero, in fact petrochemicals producers tend to continue to produce even when they are nominally losing money on each extra tonne of product they make. This is because the high capital intensity of the industry encourages marginal producers to continue to run as long as they are making a cash contribution towards their fixed depreciation costs, which tend to be quite high. In addition, some key elements of these cash costs are fixed – even if a plant is temporarily losing money, the costs of salaries, maintenance and storage need to be carried unless the decision is taken to close the plant down. This decision itself has associated costs, notably on environmental clear-up, local obligations on employment etc which in the past has made producers willing to continue to produce as long they can make a margin above the variable cash cost of production.

Will this time be different?

The material shift in oil and US gas prices from USD20-25 per barrel and USD4 per mcf respectively in 2001 to USD50-60/bbl and USD6-8/mcf gas has fundamentally changed the structure of the industry, and significantly reduced the ability of the traditional stalwarts to compete.

Even the 2001 gas price was already an increase in the USD2.00 to USD2.50/mmbtu seen over the previous twenty years on which much of the capacity in the US was based. This increase adds further cost pressure, and is likely to undermine the commitment of marginal producers to this capacity and their resolve to compete in the market from this asset base.

In addition to higher cash variable costs at the marginal suppliers supporting better ethylene prices, the industry is now more able to take a decision to close loss-making capacity than we have seen in previous downturns.

1) Plants are at a later stage in their life cycle. In 2008, the average age of ethylene capacity in the United States is now 28 years compared to 23 during the last down cycle in 2001. This is significantly above the original design life, which can be extended through debottlenecks, overhaul and maintenance, but not indefinitely and only if the financial incentive is there. The maintenance requirement on these older plants means that keeping them going is more expensive. Maintenance costs at older facilities are typically 3-4% of replacement costs – at new facilities this can be as low as 0.5% to 1%. If keeping plants going is more expensive than it was in previous cycles, the cost of closure is lower: as they are more (perhaps fully) depreciated, annual charges are lower so the need for contribution from marginal volume is reduced, and the extent of asset-writedowns associated with closure are less onerous.

2) Fewer plants are tied to political obligations for employment or economic development. When SABIC brought on its first ethylene plants in the later 1980's, there was a different landscape in both the developed and developing world. The developed world was emerging from recession, many of the early ethylene plants had been purposefully sited in areas of low employment in order to provide jobs and stimulate the regional

economy, so closure was perceived as a political impracticality. Over this period, many of these sites have come to the end of their viable life, and the growing recognition of the inefficiency of this macro-economic intervention has made it more possible to close loss-making units early in the downturn. This experience in the developed world is being recognised in the developing world, which furthermore now face specific obligations under WTO agreements etc that effectively prevent unfair subsidy or trade protection.

3) In previous downturns, producers making losses even at the variable cash cost level have been known to continue production because the alternative of closure would cost more due to environmental costs. In the same way as cleanup costs are no longer seen as the obstacle they used to be to converting petrol stations into stores or apartments, in practice, we have seen growing willingness to undertake cleanup because there has been a demonstrated market for redevelopment of former petrochemicals sites, eg for smaller biofuels plants. Furthermore, with the growing implementation of environmental charges such as carbon credit allocations, the incentive to close older and more inefficient plants has increased compared to previous downturns

As a result of these issues, there has been a significant shift in the economic and political landscape, which suggests that not only will industry margins be higher than previous downturns, but the duration of that downturn itself is also likely to be shorter as the closure of weaker players has become less of a handicap.

Company analysis

- ▶ Rapid and successful growth to become industry leader and most profitable petrochemicals company in the world
- ▶ Cost advantage stronger today than it was when first established
- ▶ Largest industrial company in emerging markets, positioned to challenge global majors in identified key products

Background and development

Saudi Basic Industries Corporation (SABIC) was created in 1976 by royal decree with the specific purpose of adding value to Saudi Arabia's hydrocarbon resources, especially the natural gas associated with its oil production, most of which was being flared for no value. This gas was available for use either as a petrochemical feedstock or cheap fuel in an energy intensive industry such as steel making. SABIC played a major role in the planned economic development of Saudi Arabia by locating facilities in the new industrial cities of Yanbu (on the Red Sea coast) and Al Jubail (on the Arabian Gulf).

Although SABIC is known as one of the largest petrochemicals producers in the world, it is also a significant steel producer. Even though sales represent just 10% of those of chemicals, SABIC is the largest steel producer in the Middle East, and the recent expansion to 5.5 million tonnes per year gives it one of the largest integrated sites in the world.

In Petrochemicals, SABIC successfully developed a series of joint ventures with international companies, offering access to advantaged feedstock effectively in return for operational

experience. In 1983, it started production of methanol at Al Jubail in conjunction with a Japanese consortium led by Mitsubishi, and added new capacity to that of Saudi Arabian Fertilizer Company which was consolidated into SABIC. With the start-up of SAFCO III in 1999, SABIC became the world's largest producer and exporter of granular urea, and the same year became the world's largest single methanol producer with its fourth world-scale plant.

In 1985, SABIC made a major move into ethylene and its derivatives with new crackers opened in 50/50 joint ventures with Exxon at Yanbu and Shell at Al Jubail. The opening launched Middle Eastern petrochemicals on the world stage and signalled the start of a new era in competitive supply to importing regions especially the Far East.

Over the past 15 years, SABIC's chemical production has quadrupled to over 45 million tonnes per year. In the next three years it will bring on three new world-scale olefins plants and associated derivative units, which is likely to make SABIC the world's second largest petrochemical producer after Dow Chemical.

Acquisitions add to organic growth

In 2002, SABIC acquired the petrochemicals business of DSM, with major manufacturing sites in Netherlands and Germany. As well as additional capacity, including a greater exposure to propylene and polypropylene to augment its olefins position, this gave significant marketing and logistics expertise which SABIC successfully integrated into its organisation to increase its international presence. At the start of 2007, SABIC completed the acquisition of Huntsman's olefins and aromatics capacity on Teeside in UK, where a new polyethylene plant is due to commission at the end of 2007.

SABIC has commented that it will continue to grow both organically and via acquisition to enhance its position in the global chemicals market, and intends to move along the value chain into more speciality areas. Its '20/20 Vision' review on where SABIC aims to be in the year 2020 has indicated that it seeks to increase the proportion of sales of speciality chemicals from around 10% to 20%. Given the continued strong growth in its core commodity chemicals, this is a significant commitment.

Announced interest in GE Plastics

At the end of March, SABIC issued a press statement confirming that it was in discussion (along with other companies) on a possible bid for GE Plastics, which manufactures higher end polymers, notably Polycarbonate (PC) and ABS, which go into computers, auto parts and appliances. This would be a step into specialities, but from a base which is close to SABIC's core expertise in plastics. GE has a 60% market share in the US in the PC market and around 50% in ABS in the US, so this would also be a significant step up in US, in an area of higher added value. The move would make strong strategic sense for SABIC. It would take it immediately to market leader in PC and ABS and provide crucial

marketing strength which could also be transferred to its own Polycarbonate production which will start in the KAYAN joint venture in 2010, an additional element of value not available to competing bidders. It would also give manufacturing synergy, as the economics of transferring PC from the new plant to GE's compounding plants in China will be much better than existing exports from Europe. It would also give it some ethylene capacity in US, which fits its footprint, which in itself would be less attractive, but would however give it direct access to understanding the economics of their rivals for minimal exposure.

Business structure

SABIC comprises two business divisions: Chemicals and Metals. Chemicals represent 85% of total group sales, with Metals at 9%. (Some 6% of additional sales are declared at Group level, from third party trading). In 2007, the expansion of its crude steel capacity by around 50% and strength in regional steel products prices is expected to increase the proportion of sales slightly to 12%, but chemicals will continue to form the lion's share of the group's business, especially following the round of expansions, notably from 2008.

SABIC organises its chemicals business into four SBU's (Strategic Business Units), and in addition has three affiliated global businesses (SABIC Europe, SABIC Asia-Pacific PTE and SABIC Americas). These SBUs are grouped along product lines, of which Basic Chemicals is the key producer of raw materials for Intermediates and Polymers, while the fourth, Fertilizers, is more standalone, with a mainly distinct production route (and indeed mainly comprises SAFCO, which is also publicly quoted, with SABIC owning 43%).

SABIC's development as a series of joint ventures is reflected in its present structure, where it consolidates 19 subsidiaries. SABIC is emphatically not a holding company, however, but actively manages the integration and optimisation of its associates operations. These companies report into the relevant SBUs rather than as distinct subsidiaries, although we would see an opportunity for further improvement at group level in terms of cash allocation. However, with the strong level of cash generation indicated by our forecasts, this would be an additional enhancement rather than a financial imperative.

The fifth SBU is Metals, composed of the wholly owned steel subsidiary Hadeed and SABIC's stakes in ALBA (Aluminum Bahrain 30%), GARMCO (Gulf Aluminum Rolling Mill Company 31%) and SABAYEK Ferro-alloy smelter in Jubail 15%).

Hadeed is the largest steel manufacturing company in the Middle East, with one of the largest integrated sites producing Direct Reduction Iron (DRI), steel billets, long and flat products.

Chemicals earnings

The four chemicals SBUs represent over 85% of group operating profits, so the methodology of forecasting chemicals earnings is crucial.

SABIC provides production volume data for its key products on an annual basis. We have multiplied these volumes by margin data for key products, from industry consultants where available (eg olefins and polyolefins), or calculation of standard deltas between input and output prices (eg natural gas, methanol, urea). We have then compared the implied margin per tonne to the reported figures from SABIC's segment earnings.

Although ethylene represents only around 16% of the total segment volume, its core position in the petrochemicals business makes it a very good indicator of overall profitability, generating a 71% correlation to the earnings per tonne across the

entire portfolio. This correlation is enhanced as we build in more products into the calculation, as there are different cycles across different product chains, and between products within the chain (eg ethylene and different polyethylenes).

However, by focussing analysis on key products, there is a 97% correlation from just 50% of the total volume. The rest of the products, which are more diverse and for which there is less information, are in fact closely correlated with the bulk products and have only an insignificant effect on overall profitability.

Appendix 10: Impact of chemicals margins on sector earnings

Products	% of overall chemicals volume	% correlation to chemicals earnings
1 Ethylene	16%	71%
2 1 + Polyolefins	27%	83%
3 2 + Methanol/Urea	45%	98%
4 3 + MEG	51%	97%

Source: HSBC

While it is important to have a method of linking volumes and industry margins to reported earnings, forward forecasts still rely on the validity of estimates of how these inputs will trend in the future.

Exhibit 11: Assumptions on timing of major SABIC projects

Site	Months in operation			Avg operating utilisation		
	2008	2009	2010	2008	2009	2010
SHARQ	6	12	12	75%	85%	90%
YANSAB	3	12	12	70%	82%	90%
KEMYA		3	12		70%	85%

Source: HSBC

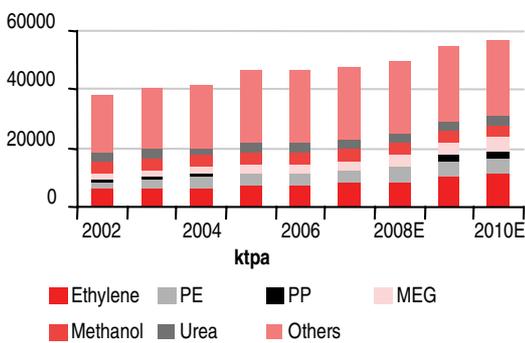
Volume growth is closely dependent on assumptions for when the new major plant capacities will start up, and what utilisation they are likely to achieve in the build-up phase. SABIC has three major sites scheduled to start up by 2009 (as discussed in Exhibit 9– new ME plants). Our forecast uses the following assumptions:

Exhibit 12: SABIC Projects and derivatives

Project	Capacity ktpa	Monomer	Capacity ktpa	Derivative
YANSAB	1300	Ethylene	400	HDPE
			450	LLDPE
			565	Ethylene Oxide
			700	Ethylene Glycol
				PP
	350	Propylene		For LLDPE copolymer
			200	Benzene
			50	Butene-1
SHARQ	1200	Ethylene	800	HDPE/LLDPE
			560	Ethylene Oxide
			700	Ethylene Glycol to Ibn Zahr
	200	Propylene		
Ibn Zahr	180	Propylene	450	PP
Kayan	1350	Ethylene	300	HDPE
			250	LDPE
			370	LLDPE
			530	Ethylene Oxide
			525	Ethylene Glycol
			430	Propylene
			285	Cumene

Source: SABIC, HSBC

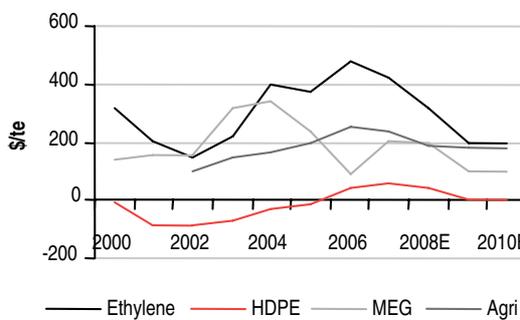
Exhibit 13: Chemical volumes by critical products



Source: SABIC, HSBC

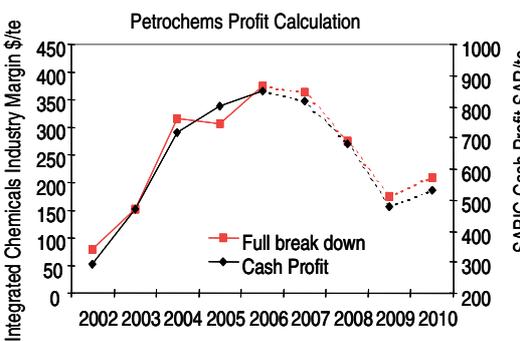
Margin forecasts reflect the underlying supply /demand projects to 2010, using the historical relationship between overall utilisations and industry margins. (See *Appendix 1*). However, this historical data does not reflect the important change in the cost structure for marginal producers based on naphtha, as discussed in the general section on petrochemicals.

Exhibit 14: Key chemical margin trends



Source: CMAI, SABIC, HSBC

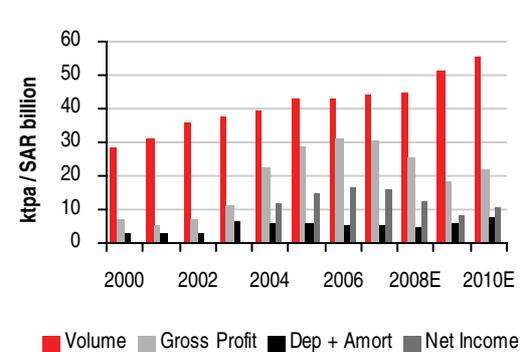
Exhibit 15: SABIC Segment earnings vs Industry Margins



Source: SABIC, CMAI, HSBC

This data provides an effective basis on which to project cash profits per tonne (industry margins do not take in depreciation charges). Depreciation is then calculated independently assuming that new plant is depreciated over 20 years from the quarter in which it commences operations.

Exhibit 16: Chemicals sector earnings profile

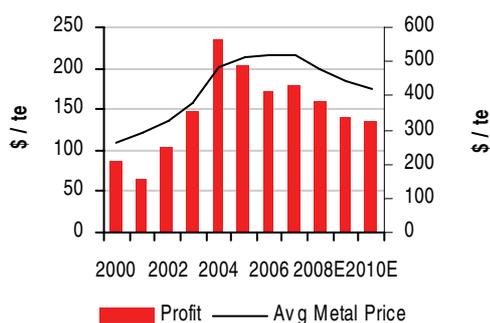


Source: SABIC, HSBC

Metal earnings forecast for SABIC

The 100% Hadeed steel subsidiary represents the bulk of the earnings in SABIC's metals SBU, so we have calculated an average metals price using reported revenues compared to steel production and based projection on expected trends in the steel market. Although the historical correlation is not as strong as for Chemicals, it is effective with a correlation of 82%. The 2006 results included additional costs ahead of the major expansion at Hadeed Al Jubail, and excluding this effect takes the correlation to 92%.

Exhibit 17: SABIC Metals earnings compared with average steel prices

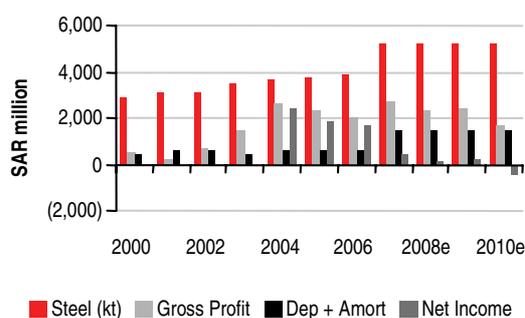


Source: SABIC, HSBC, CRU

Forward prices are expected to moderate in the second half of 2007. The continued regional deficit will provide good volume support but at prices which reflect overall industry supply/demand balances. Although the region is short, there is likely to remain sufficient export capacity elsewhere to meet demand, so the main advantage of local supply is the ability to offset freight on the finished products.

However, Hadeed enjoys additional cost advantage because of the low gas price for methane into the DRI process and its large integrated site, especially after the expansion to 5,500 ktpa. SABIC does not generate its own power for steel production, and pays contract prices for electricity supplied by the grid, in common with other producers. Electricity prices are nonetheless below those charged to industrial users in other major regions, with average prices at 3-4 cents per kilowatt hour compared to a normal range between 6 and 9 c/kwh.

Exhibit 18: SABIC Metals SBU key financial trends



Source: SABIC, HSBC

Note that although gross profit remains reasonably robust going forward at around SAR2 billion, we expect that reported segment earnings will come under pressure because of the increase in depreciation from 2007 with the commissioning of the major expansion. This does not affect cash flows however, which is an important issue as cash flow has a greater influence on valuation measures.

Valuation & investment issues

- ▶ Higher growth, more robust than peers, but trades at high discount on normalised earnings
- ▶ Cash-based valuations preferred; EBITDA discriminates against low tax rate
- ▶ Initiate SABIC as Overweight (V), with target price of SAR155

Exhibit 19: Key Model Assumptions

			2004	2005	2006	2007E	2008E	2009E	2010E	Normalised
Environment	Ethylene growth	% yoy	6.0%	3.1%	5.2%	3.6%	3.5%	4.0%	4.5%	3.0%
	Industry utilisation	% yoy	93.6%	94.0%	93.2%	92.0%	91.4%	88.5%	88.8%	
SABIC volumes	Ethylene	ktpa	6449	7150	7200	7900	8531	10228	11245	11245
	Other Olefins/PO	ktpa	4464	4674	4680	4720	5738	7406	8090	8090
	Agri	ktpa	4199	4090	4100	4200	4200	4200	4200	4200
	Total Chemicals	ktpa	39295	43054	43000	45885	48582	52455	54784	0
	Steel	ktpa	3080	3451	3624	3750	3900	5225	5225	5225
Prices/Margins	Ethylene CIF NE Asia	USD/t	929	976	1168	950	820	720	720	898
	Ethylene Margin	USD/t	396	373	475	420	320	200	200	341
	Chemicals Margin	USD/t	315	306	376	364	275	173	203	277
	Steel Price	USD/t	484	512	520	520	480	440	420	482

Source: HSBC, SABIC, CMAI

Earnings outlook

Against the background of increased capacity in most of its key products, SABIC will not escape a period of declining earnings starting in 2007/2008 despite its own increased volumes. Based on forward growth and capacity assumptions, we expect margins to recover in 2010, with the potential that they could do so before this if the closure of weaker plants is as swift as we believe it could be. But for investors focused on uninterrupted earnings growth, even the lowest

cost producer is subject to industry cyclicality and 2006 represents the likely peak in earnings.

However, a key driver for underlying valuation and competitor comparison is 'normalised earnings', which assesses the performance of a company over the cycle. For this we use the average margin over the last seven years, a period which covers trough, peak and mid-cycle earnings. Normalised earnings grow at 9.5% CAGR to 2010, catching up 'peak' earnings in just three years.

Exhibit 20: Normalised earnings forecasts

		2006	2007E	2008E	2009E
EBITDA	SAR mill	37,179	33,427	35,475	38,216
EBIT	SAR mill	31,063	26,418	28,892	30,416
Net Income	SAR mill	20,319	16,333	18,486	20,184
Cash from Ops	SAR mill	37,002	33,220	36,720	40,171
Normalised EPS	SAR / share	8.1	6.5	7.4	8.1
EV/EBITDA		8.3x	9.9x	13.5x	8.9x

Source: Company, HSBC

PE improvement through share buyback unnecessary for SABIC

One of the options available to chemicals companies is to buy back stock using cash generated at the peak of the cycle to improve earnings per share in the downturn. We see less benefit or likelihood of this for SABIC. With only 30% of the company floated on the Saudi stock exchange, the impact of share buybacks would be to reduce liquidity, while making less difference to the overall number of shares outstanding. We anticipate more rather than fewer shares in public circulation, through reduction in the government stake towards the 50% targeted in the company's articles of association.

Valuation

DCF and assumptions

We use a standard Discounted Cash Flow model based on detailed five-year forecast, followed by a further five years based on group assumptions for key lines such as sales growth, margins, capital expenditure etc, and terminal value.

Because of the cyclical nature of the petrochemicals industry, we assume year five of the detailed forecast is a normalised year in order to provide a realistic basis on which to project outer years.

Using an average cost of capital of 9% (equity 9.5%, with a risk-free rate of 10.5%, beta of 0.9, and debt 5%) and a growth to perpetuity of 3%, we arrive at an enterprise value of SAR435bn. Adjusting for net debt and investments leaves an

equity value of SAR388bn, and a **value per share of SAR155**.

The Discounted Cash Flow method is very sensitive to the input assumptions. We have therefore quantified key sensitivities, and assessed the investment ratios implied at SAR155.

Exhibit 21: Key sensitivities on DCF calculation

	Base	Sensitivity	DCF
Base DCF			155
Sales growth	4%	2%	115
Op costs as % of sales	68%	75%	130
Base Capex SARbn	12.5	13.75	147
Cost of Capital	9.5%	12%	120
Zakat rate	4.0%	8.0%	146

Source: HSBC

EV/EBITDA

Exhibit 22: Comparison with other chemicals companies

	2007E	2008E	2009E	Normalised 2009E
SABIC	8.3x	9.9x	13.5x	8.9x
Target Price	9.8x	11.5x	15.4x	11.2x
Dow	7.9x	9.7x	11.6x	11.2x
Lyondell	8.4x	11.7x	14.3x	7.3x
Du Pont	9.1x	9.6x	10.2x	8.8x

Source: HSBC

EV/EBITDA is a key valuation used in the chemicals sector, using EBITDA as a proxy for operational cash flow over the total implied value of the company (effectively market capitalisation plus net debt).

2009 is a trough year for SABIC and other olefins based companies, but even on this basis SABIC is trading at a discount to international peers, especially Lyondell, which is predominantly weighted to commodity petrochemicals.

The target of SAR155 compares to a premium to present values of these peers for 2009, but should be assessed on normalised earnings. This shows SABIC trading at a 21% discount to Dow (probably its closest competitor) on normalised earnings. The target price of SAR155 places SABIC on the same EV/EBITDA ratio as Dow.

EV/EBIDA

In our view, EV/EBITDA is not the most effective comparison for SABIC because of the low tax rate in Saudi Arabia. The purpose of EBITDA is to reflect a proxy for underlying cash flows.

However, the calculation of Zakat (based on assets rather than earnings) produces a very low effective tax rate of around 4%. This is a further source of specific cost advantage, which is not reflected in EBITDA ratios. A more effective comparison adjusts for this effect and looks at EV/EBIDA.

Exhibit 23: EV/EBIDA

	2007E	2008E	2009E	Normalised
SABIC	8.4x	10.0x	13.6x	9.0x
Target Price	9.9x	11.6x	15.5x	11.3x
Dow	10.7x	13.0x	15.6x	15.7x
Lyondell	13.0x	17.9x	22.0x	11.3x
Du Pont	12.2x	13.0x	13.8x	11.9x

Source: HSBC

On this basis, the discount to Dow Chemical on increases to 23% on forecast 2008, and to 43% on normalised 2009. The target price of SAR155 still leaves SABIC trading at a 28% discount to Dow.

Sensitivities

We have run forecasts in our model to assess the impact of impacts in three general areas: delay in one of SABIC's major projects; shifts in petrochemicals margins reflecting four scenarios (delay in other projects sustaining higher industry margins, more aggressive marketing by marginal producers, more rapid closure of marginal capacity, and sustained improvement in fertilizer margins); and higher margins in SABIC's steel business.

1) Delay to one of its projects

SABIC is due to bring on three projects, at YANSAB, SHARQ and KAYAN. Although we are not aware of specific delay, we believe that of these KAYAN might be the more exposed to slippage as the others are relatively advanced. For this sensitivity, we assume a one-year delay to the

KAYAN complex, including 1.35 million tonnes of ethylene, 450 kta of propylene, and associated derivatives plants.

The effect of this sensitivity would be to reduce volumes in 2009 and 2010, while we have not included any impact from the delay in this plant on overall margins. This reduces forecast net income by 1.1% in 2009 and 2.5% in 2010, but the impact on the overall DCF is minimal at just SAR 2.

2) Delays to several cracker projects in Middle East.

In this sensitivity, we assume two competitor plants in addition to KAYAN are also delayed by one year. While there is no assumed impact on volumes for SABIC compared to Case 1 above, the delay of 3 million tonnes or more of installed capacity would have the effect of increasing global utilisation from 88.5% to 90.4%, which would add around USD50 per tonne to ethylene margins.

This would have a very positive effect on SABIC's projected earnings, adding around 16% to 2009 earnings, but reducing 2010 by around 3%. The impact on the DCF is neutral.

3) Continued production by competitors below marginal cost of supply

Utilisation rates in 2001 and 2002 reached 87.3%, around 1ppt lower than we anticipate in 2009, which does not assume any closures, but does assume producers turn down utilisation rates. More aggressive marketing by concerned producers to defend market share against new comers could take 2% off expected rates even at the trough.

The impact of this would be to reduce net income in 2009 by around 30% and in 2010 by 22%.

This is a very pessimistic scenario with a low probability. Although it is certainly true that producers under threat will seek to defend their position, it is difficult to see that SABIC margins

Exhibit 24: Impact of selected sensitivities on net income

	2008	2009	2010
SABIC project delay	0.0%	-1.1%	-2.5%
Middle East project delays	0.0%	20.5%	2.9%
Prices below marginal cost	0.0%	-31.0%	-22.0%
Closures of marginal supply	0.0%	24.5%	31.3%
15% increase in Urea Margins	5.3%	6.2%	5.5%
10% increase in metals price	1.8%	2.3%	1.0%

Source: HSBC

will decline to the same level as in 2001/2002, because the cost set has fundamentally shifted. Marginal producers costs have moved up USD150 per tonne, so for SABIC to achieve the same margin, high cost producers would be getting USD150 less than in the previous downcycle. This would make them seriously loss-making and this level of margin would be unsustainable.

4) Rapid announcements of capacity closure

For the reasons detailed in the investment summary and discussion on the economics of the Petrochemicals business in Appendix 1, we believe there is a more likely scenario that marginal producers will cease production at an earlier stage in the down-cycle. Announcement of this would improve not only utilisation but also improve outlook by removing the threat of high capacity overhang. We estimate that the effect would be the positive mirror image of Case 3, improving net income by 30% in 2010.

5) Sustained higher margins in Fertiliser market

Stronger demand for fertilisers reflecting improved agricultural demand would sustain the present improvement in margins. We estimate the effect of a 15% increase in average urea margins over the period his would be to increase net income by 3.5% in 2008, 6.2% in 2009 and 5.5% in 2010.

6) Sustained higher margins in Middle Eastern steel

A 10% increase in our predicted average for metals prices would add 1.8% and 2.3% to net income in 2008 and 2009 respectively.

In each of these cases, the impact on the DCF value is limited, mainly because the impact over two or three years does not materially impact the base year on which the long-term value is calculated. The range of the above sensitivities moves the DCF between SAR 148 and 160.

Risks

The above sensitivities address the risks which we believe are the most likely to impact SABIC's business. Earnings are closely dependent on overall chemicals industry margins, so significant shifts in this area represent the greatest risk to our forecast. The biggest risk to petrochemicals demand would be a severe downturn in GDP growth, notably in China, which has formed a major engine of global demand growth. However, as 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 which may distort short-term margins, hence the importance of normalised earnings to assess underlying long term value.

In addition to normal business risk in the petrochemicals market, there are other potential risks, which are more difficult to assess, both in terms of probability and effect. Such risks would include interruption to production from operating

problems or explosion. Although the bulk of SABIC's production is based in the Middle East, 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 where global standards of health and safety are rigorously applied.

Investment drivers

Cyclicality of petrochemical margins

SABIC earnings are closely correlated with chemicals industry margins. But we find assumptions that their margins will return to the levels seen in 2001/2002 are incorrect. Costs have moved up for marginal producers which do not impact SABIC, and uneconomic plants are under less incentive to continue to operate despite making losses than in previous cycles.

Volume growth drives normalised earnings

SABIC is due to bring on three major plants in 2008 and 2009. Although these contribute to the reduction in overall industry volume, SABIC will be able to sell its petrochemicals competitively even in export markets. It will get its margin based on market price across its new volume.

Strong cash flows, potential for dividend growth

Dividends have not been a big feature for Saudi investors, and indeed SABIC has previously opted for bonus shares rather than cash dividends. This has led to regular build-up in retained income reserves which have then been transferred to normal reserves without releasing direct value for shareholders. We believe that a policy of dividend growth would confirm the security of SABIC's balance sheet and cash flow generation, and be appreciated by long-term investors.

Recognition of SABIC value compared to international peers

SABIC is trading at a 43% discount to Dow Chemical, the competitor with the most similar portfolio of products on normalised 2009e EV/EBIDA. Our target of SAR155 still leaves a heavy discount of 29%.

Increased liquidity for blue chip stocks on Saudi stock market

The Tadawul, the Saudi stock market, has been marked by significantly higher turnover in stocks with very small market cap. This has increased the volatility of a market already relatively variable market given its emerging status. Growth in institutional funds is expected to focus on the largest 35 or so stocks in the Tadawul, shifting liquidity towards these blue chips and demonstrating preference for longer term, value-based investment

Potential ownership by foreign investors

Saudi Arabia is displaying some signs of greater international accession. It joined the WTO in 2005, it has opened up ownership in most non-financial stocks to investors from other GCC countries, and it allows foreign investors to own funds based in Saudi Arabia. The opening of other GCC markets to foreign investors is inevitably raising questions as to the potential benefits of a similar development for the Saudi market.

Appendix 1: Competitive advantage in global petrochemicals

- ▶ What drives demand, supply, margins and costs?
- ▶ Is there room for a new wave of petrochemicals capacity?
- ▶ If not, can there be any winners, or just losers?

Introduction to the global petrochemical industry

World scale

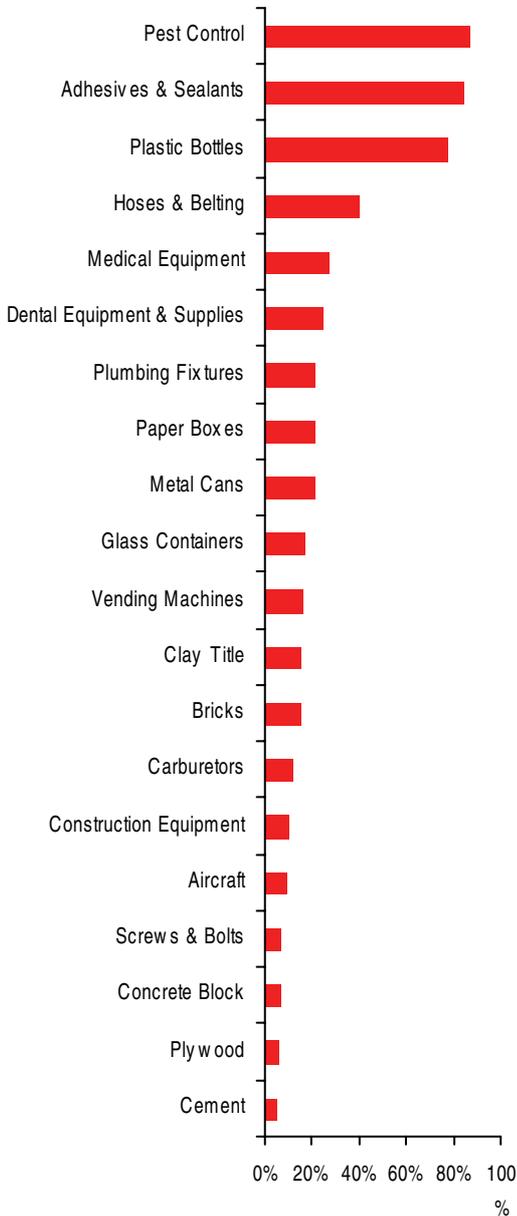
The global chemicals industry is estimated to generate well over USD2 trillion in sales each year, more than the global market for crude oil. Although demand remains more concentrated in developed markets (US, West Europe and Japan account for 60% of the market), there has been strong growth in emerging economies and the petrochemicals market is truly global (with the possible exception of Africa, which accounts for only 2% of world demand).

Chemicals are critical components of most everyday items in both industrial and personal goods, from direct products such as plastic packaging, agro-chemicals, paints etc, which contain more than 80% of their total material input from chemicals, to less obvious uses such as aircraft manufacture (10%), household appliances (20%) and medical equipment (30%). Growing use of chemical products is a critical element of emerging economies, from infrastructure and construction to industrial packaging to the development of a consumer products sector.

The distinguishing feature of “petrochemicals” is the carbon atom, derived from hydrocarbons (petroleum and natural gas). The main building block is ethylene, representing 40% of total petrochemical volumes. Ethylene is produced by “cracking” or separating bonds in the hydrocarbon chain to produce ethylene, along with other “olefins” such as propylene and butadiene, and “aromatics” such as benzene, toluene and xylene. The proportion of these basic petrochemicals depends mainly on the feedstock used by the ethylene cracker, with some further flexibility from differing operating conditions. (See Exhibit 1 for a summary of petrochemicals products).

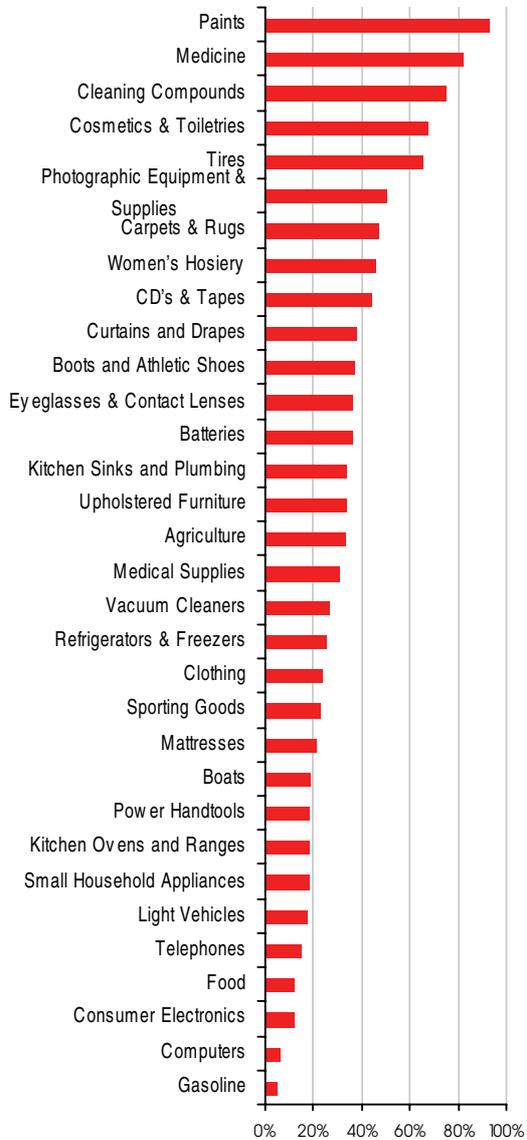
Although there are few direct uses for ethylene itself (it has been used to stimulate the ripening of tomatoes in Spain, for example, but not much else), it is familiar through its many derivatives such as plastics (polyethylenes, PVC, polystyrene) and fibres (PET and polyester). In the US, nearly 70% of end uses are for non-durable goods such as packaging, bottles etc. The remaining 30% for durable includes pipes, automotive parts and electrical components.

Appendix 25: Chemicals as a percentage of material inputs in industrial products



Source: ACC, HSBC

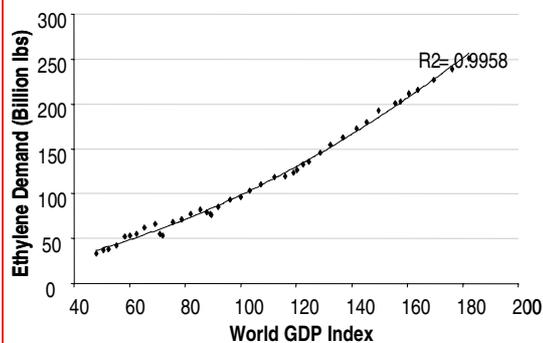
Appendix 26: Chemicals as a percentage of material inputs in consumer products



Source: ACC, HSBC

With such a diverse spread of uses, many of which are focused on basic economic activities such as packaging and construction, there is a very close correlation between petrochemicals and GDP.

Exhibit 27: Global Ethylene demand versus GDP



Source: CMAI, HSBC

However, the multiple to GDP varies between different products and regions depending mainly on their level of maturity. The superior economic growth rates seen especially in China and South East Asia have led to ethylene demand growth in Asia (ex Japan) of 6.5% compared to 3.0% for the rest of the world.

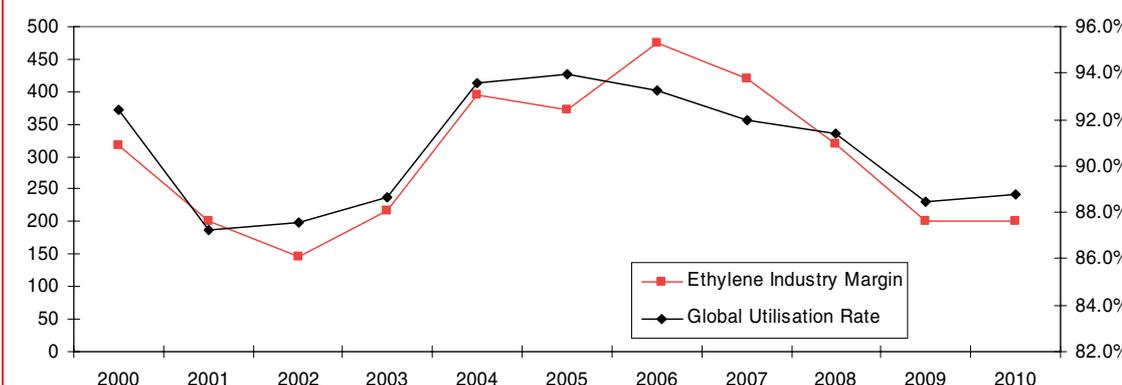
The petrochemicals industry is deeply cyclical in nature. Growth as a multiple of GDP tends to exaggerate the effect of changes in overall economic growth, leading to large movements in inventory especially in more storable downstream products. Temporary shortages attract stronger prices from customers to capture supply, which in the near term produces some flexibility in supply as higher margins encourage higher industry utilisation. However, any unexpected growth in underlying demand rather than temporary supply disruption is

more difficult to satisfy, due to the long lead times in sanctioning and constructing major new capacity. Excess margins encourage over-investment, which then tends to start up at around the same time, leading to severe decline in margins.

Despite some consolidation over the past decade, the ethylene industry remains relatively fragmented, with limited opportunity for any natural market leaders to mitigate inventory build by reducing production. Because of the high level of capital intensity and the level of integration into numerous petrochemicals products and markets, marginal producers have often felt incentivised to continue to produce even when making losses on their volume in order to make a contribution to fixed costs or protect position during what is seen as a cyclical downturn.

With much of the rapid growth in petrochemicals having taken place in the 1970's based in industrialised countries, one of the critical issues for the petrochemicals industry today is the mismatch between growing centres of demand and existing capacity, which is becoming more isolated from either demand growth or production cost advantage. Capacity in the USA grew again in the 1980s to exploit the "gas bubble" of large quantities of cheap gas, while European capacity was based on naphtha as the cheapest way of meeting local demand. Neither of these bases are as valid today, with

Exhibit 28: Ethylene margins vs industry utilisation



Source: CMAI, HSBC

emerging markets providing both the demand growth and access to feedstock which drive competitive advantage. Resolution of this mismatch is likely to be painful for such producers, but provides a significant opportunity for those who offer one or even both of these key criteria.

Economics of the petrochemical industry

Further detail and background may also be found in *Cracking Chemicals – An Industry Guide* (March 2006, by Hassan Ahmed, HSBC US Chemicals analyst).

Because of its central importance, focus on the ethylene industry is a very effective means to demonstrate the key drivers in the overall petrochemicals industry.

Demand

Global ethylene demand has typically grown at a rate of 4% to 5% per year, normally related to shifts in the overall economy as expressed through GDP. The combination of higher GDP growth and exports of finished goods into developed countries has provided exceptionally strong growth in the Far East, especially in China, which has been growing at 13.8% on average over the past five years and is expected to continue at 10.5%.

For a detailed summary of the market and business

drivers of ethylene and its derivative, see the *Business Description* section on pages 18 to 24.

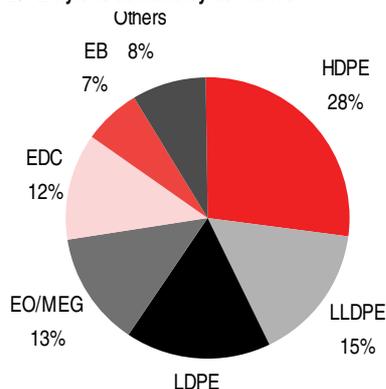
Supply

Ethylene is produced from several raw materials (or “feedstocks”), each of which has widely varying costs and output.

The most common feedstock is naphtha, a refinery product with only limited and normally lower value use into the gasoline pool, making petrochemicals the preferred route. Naphtha is the main feedstock used in Europe and Asia. This process produces a higher proportion of co-products, notably propylene, used mainly in polypropylene, which has been growing more quickly than polyethylene. Other products include butadiene, and pyrolysis gasoline from which benzene may be extracted.

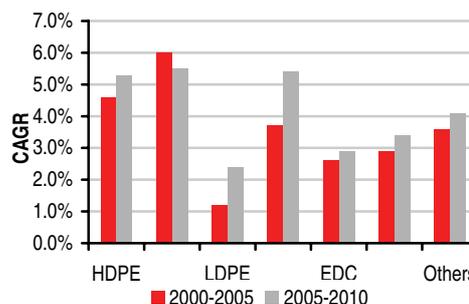
Naphtha is a liquid, but ethylene is also produced from gases: ethane, and to a lesser extent LNG’s (liquefied natural gases, ie propane and butane). Depending on the local value of the gas feed, this route tends to be cheaper than naphtha, but has the potential disadvantage of being less flexible and not providing integration into the propylene “wedge” of derivatives.

Exhibit 29: Ethylene demand by derivative



Source: CMAI, HSBC

Exhibit 30: Ethylene growth rate by derivative



Source: CMAI, HSBC

A higher proportion of new capacity coming on stream to 2010 will be based on ethane due to its cost advantage especially in the Middle East, but naphtha based capacity is continuing to grow and is expected to remain the feedstock for 50% of the world's ethylene in 2010. Most of this growth is driven by capacity located in the regions of faster growing demand in the Far East, where naphtha is the main feedstock due to the growth in refining capacity and limited availability of advantaged gas.

Prices reflect industry structure

As with most commodities, the price of ethylene is linked closely with supply and demand, with the higher cost, marginal suppliers setting the price in each region, tempered by the availability of imports into that region either of ethylene itself or of ethylene derivatives (which may then displace local production).

Ethylene can be traded in bulk in certain areas (sea trade to South East Asia, China, North West Europe), but local availability depends on having access either to an import terminal or to pipelines which transport the gas in certain regions. This pipeline system is particularly extensive in the US Gulf Coast region and to a lesser extent in North West Europe (Rhine delta and inland), which allows derivative producers to purchase ethylene more practically from third parties in the "merchant market", but in practice the combination of limited infrastructure and the preference for security of supply/dependable off-take means that there is a high degree of integration from ethylene into its major derivatives.

This level of integration has tended to increase as the scale of ethylene plants has increased. With new plants now sized at 1.3 million tonnes per year of ethylene, it would be commercially impractical to depend on third parties to provide the bulk of demand as this would place severe volume risk on the new ethylene plant. Traditionally some dependable volume has been

placed on long term contract, but in practice there can be a high level of flexibility in the volumes finally nominated, between agreed maximum and minimum levels. Other volumes may be sold in the market at "spot" rather than "contract" prices, but this adds price risk as well as volume risk, so again there tends to be a preference for large, integrated sites which provide a fairly neutral "mass balance" between olefins capacity and reliable downstream demand.

Regional imbalances and importance of trade

Ethylene is a flammable gas, which has to be stored at high pressures and low temperatures making it difficult and expensive to transport.

For international trade, specialist ships are required which provide the high-pressure storage, and equally importantly, customers are dependent on a specialist import terminal, which can receive shipments in bulk.

For this reason, most of the ethylene that crosses international borders does so in the form of derivative products. In fact, about 8-10 times as much ethylene is traded internationally as derivatives rather than the original monomer. This can be in the form of polyethylene pellets, which can be shipped in bulk or containers; or for example ethylene glycol or styrene, which can be shipped in bulk as liquids.

This ability to export petrochemicals more cheaply and effectively encouraged the development of a global petrochemicals market, and allows some regions to continue to meet demand effectively despite being strongly deficit in their local production capacity.

The most dependent region on trade imports is the Far East, which has traditionally been supplied by exports from United States and Middle East. Two significant trends have supported the development of petrochemicals production in the Middle East,

each of which is expected to increase in the future: 1) the Far East retains a structural deficit in ethylene and its derivatives despite the significant increases in domestic capacity, indeed the deficit continues to grow through to 2010; and 2) the United States (and other mature exporting regions) is at a major cost disadvantage which has not only curtailed its ability to export competitively but which threatens even its ability to supply its own domestic market.

Industry margins are linked to overall supply and demand

In order to assess profitability and investment criteria, the petrochemicals industry uses the concept of “industry margins” particularly in reference to three typical areas of interest: US

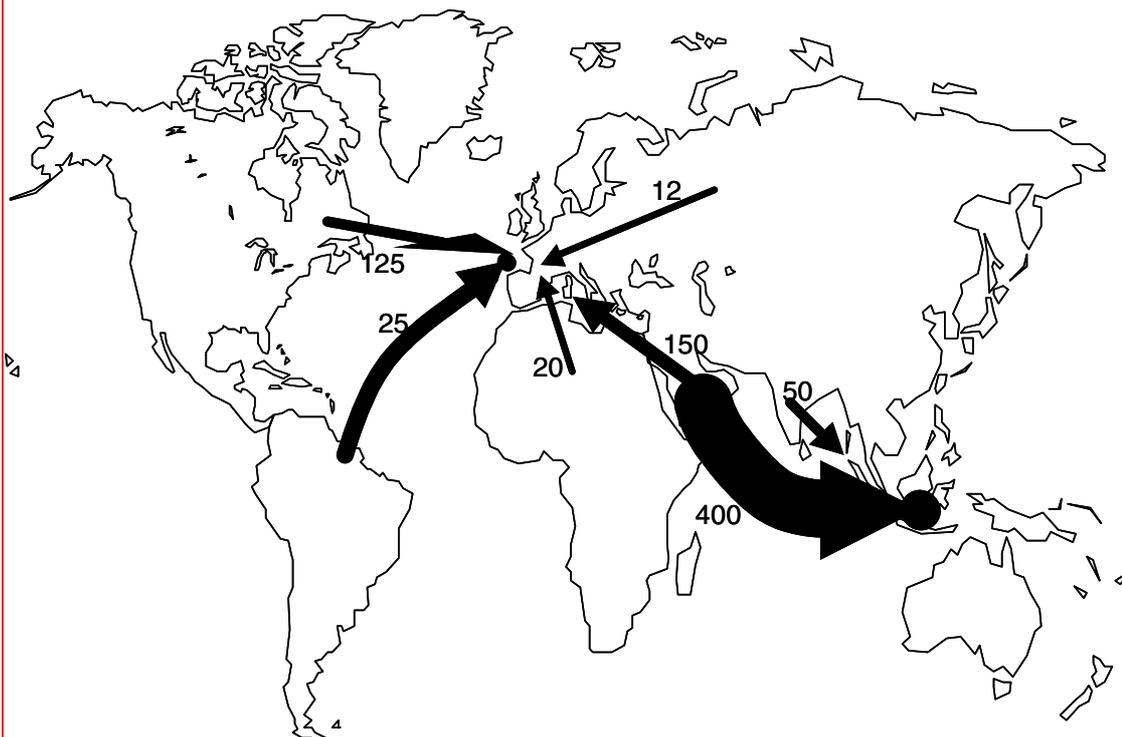
Gulf Coast, North West Europe and South East Asia. The industry margin is normally derived from a formula combining the local ethylene price plus any co-product credits (eg for propylene etc) minus the cost of raw materials. This may be tracked on a monthly basis to provide a measure of industry profitability.

Industry margins are volatile, but tend to reflect the present or perceived future balance between supply and demand.

Although very widely used, by consultants and the companies themselves, there are some flaws with using the industry margin as the basis of industry analysis.

Exhibit 31: Ethylene trade flows

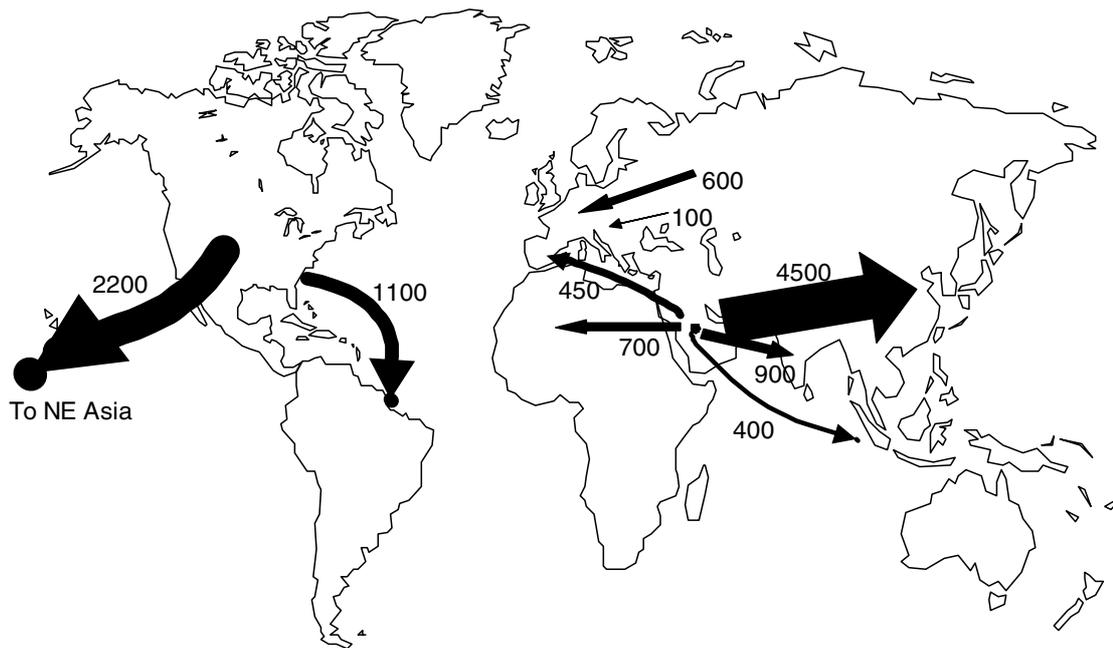
Global Ethylene Trade Flows
 Ethylene Monomer, 000 tons
 Based on 2005 Trade Flows



Source: CMAI

Exhibits 32: Ethylene Trade Flows as Derivatives

Global Ethylene Net Equivalent Trade Ethylene as Derivatives, 000 Tons Based on 2005 Trade Flows



Source: CMAI

First, it does not take into account the wide variation in outputs of each cracker, which are different one from another but which can also change within the same cracker unit depending on the feed selected. However, this is normally effectively treated by assuming a premium or discount to the industry margin depending on the sophistication of the plant.

Second, it reflects only the cash prices of the main inputs and outputs. It does not include fixed costs associated with the plant, either cash or non-cash, nor the cost of energy. To assess this full impact, HSBC has developed a full cost curve for key crackers around the world which is used to calculate the cost of production based on key certain central assumptions.

While the industry margin provides a dynamic view of the overall health of the petrochemicals industry and where it sits in terms of the commodity cycle, it is its position on the cost curve which is important for assessing individual company positions and competitive advantage.

Ethylene cost curve

HSBC has developed an effective model to assess costs across the ethylene industry, using long term historical data and working with industry consultants CMAI.

Because naphtha provides the raw material for so much of the world's ethylene production, particularly at the marginal suppliers, ethylene prices tend to reflect medium to longer term movements in the oil price. This has important implications as it raises the variable cash cost of production, the minimum to which ethylene prices are likely to decline even in a period of overcapacity. For those producers whose feedstock price is based on naphtha, the less efficient will be unable to make their variable cash costs even when the ethylene price is higher than we have seen in previous cycles. In 2000/01, the cost to the marginal producer was around USD450-460 /tonne. At prices of USD50 oil and USD6/mmbtu gas, the marginal cost is estimated to have risen to USD600-625/tonne. For those whose feedstock is based on fixed price gas, this difference goes straight through to the benefit of their margins.

This process is demonstrated by industry data looking at the total cost to supply HDPE into China. This includes not only the production cost

advantage for the Middle East, but also freight, duties, etc, to determine the effective cash cost of various elements of global capacity. This demonstrates that although an exporter, the economics of a typical Middle Eastern producer make it the cheapest to supply, a long way ahead even of the leading local producers in China itself. The marginal producers are not exporters, but weaker local producers whose volume is at risk. It will be these higher cost producers who effectively act as swing producers and set the price.

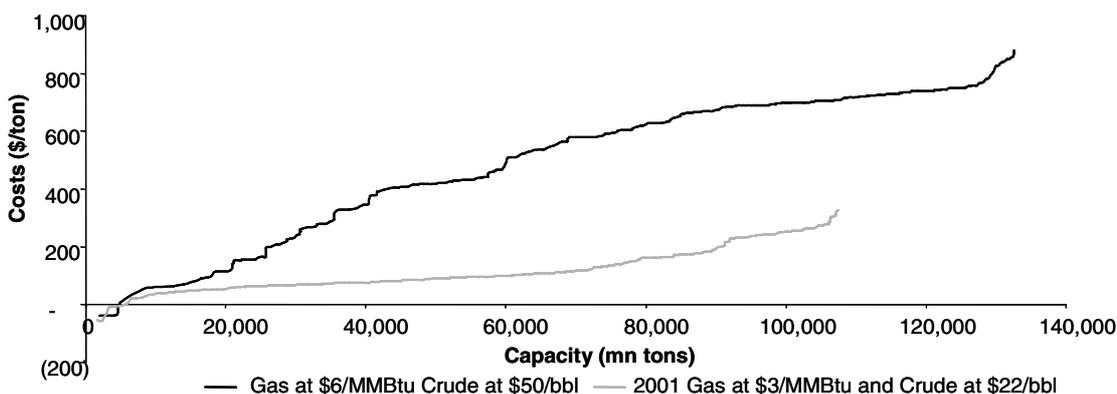
Does the cost curve really determine who produces?

Although the prices will ultimately be set by the cost of supply of the marginal producer, this cost of supply is normally broken down into various distinct components:

- 1 Variable cash cost of production – raw materials, energy, freight, payment terms etc
- 2 Fixed cash cost of production – labour, storage, maintenance
- 3 Non-cash cost of production - depreciation
- 4 Profit margin

While in theory the marginal supplier should stop producing when profits become zero, in fact petrochemicals producers tend to continue to

Exhibit 33: Indicative cost curve – cash costs



Source: Companies, CMAI, HSBC

produce even when they are nominally losing money on each extra tonne of product they make. This is because the high capital intensity of the industry encourages marginal producers to continue to run as long as they are making a cash contribution towards their fixed depreciation costs, which tend to be quite high. In addition, some key elements of these cash costs are fixed – even if a plant is temporarily losing money, the costs of salaries, maintenance and storage need to be carried unless the decision is taken to close the plant down. This decision itself has associated costs, notably on environmental clear-up, local obligations on employment etc which in the past has made producers willing to continue to produce as long they can make a margin above the variable cash cost of production.

Will this time be different?

The material shift in oil and US gas prices from USD20-25 per barrel and USD4 per mcf respectively in 2001 to USD50-60/bbl and USD6-8/mcf gas has fundamentally changed the structure of the industry, and significantly reduced the ability of the traditional stalwarts to compete. Even the 2001 gas price was already an increase in the USD2.00 to USD2.50 seen over the previous twenty years on which much of the capacity in the US was based. This increase adds further cost pressure, and is likely to undermine the commitment of marginal producers to this capacity and their resolve to compete in the market from this asset base.

In addition to higher cash variable costs at the marginal suppliers supporting better ethylene prices, the industry is now more able to take a decision to close loss-making capacity than we have seen in previous downturns.

1) Plants are at a later stage in their life cycle. In 2008, the average age of ethylene capacity in the United States is now 28 years compared to 23 during the last down cycle in 2001. This is significantly

above the original design life, which can be extended through debottlenecks, overhaul and maintenance, but not indefinitely and only if the financial incentive is there. The maintenance requirement on these older plants means that keeping them going is more expensive. Maintenance costs at older facilities are typically 3-4% of replacement costs – at new facilities this can be as low as 0.5% to 1%. If keeping plants going is more expensive than it was in previous cycles, the cost of closure is lower: as they are more (perhaps fully) depreciated, annual charges are lower so the need for contribution from marginal volume is reduced, and the extent of asset-writedowns associated with closure are less onerous.

2) Fewer plants are tied to political obligations for employment or economic development. When SABIC brought on its first ethylene plants in the later 1980's, there was a different landscape in both the developed and developing world. The developed world was emerging from recession, many of the early ethylene plants had been purposefully sited in areas of low employment in order to provide jobs and stimulate the regional economy, so closure was perceived as a political impracticality. Over this period, many of these sites have come to the end of their viable life, and the growing recognition of the inefficiency of this macro-economic intervention has made it more possible to close loss-making units early in the downturn. This experience in the developed world is being recognised in the developing world, which furthermore now face specific obligations under WTO agreements etc that effectively prevent unfair subsidy or trade protection.

3) In previous downturns, producers making losses even at the variable cash cost level have been known to continue production because the alternative of closure would cost more due to environmental costs. In the same way as cleanup costs are no longer seen as the obstacle they used to be to converting petrol stations into stores or apartments, in practice, we

have seen growing willingness to undertake cleanup because there has been a demonstrated market for redevelopment of former petrochemicals sites, eg for smaller biofuels plants. Futhermore, with the growing implementation of environmental charges such as carbon credit allocations, the incentive to close older and more inefficient plants has increased compared to previous downturns

As a result of these issues, there has been a significant shift in the economic and political landscape, which suggests that not only will industry margins be higher than previous downturns, but the duration of that downturn itself is also likely to be shorter as the closure of weaker players has become less of a handicap

Appendix 2: SABIC's business detail

- ▶ Process, demand and uses of key products
- ▶ Competitive position and outlook

Petrochemical business

Basic chemicals

Basic Chemicals is SABIC's largest Strategic Business Unit, producing around 40% of the company's total volume. The majority of its output is transferred to the other three Petrochemicals SBUs, so it generates a relatively smaller proportion of third-party sales, but this division is the mainstay of SABIC's core petrochemical presence.

Within Basic Chemicals, there are three manufacturing groups:

Olefins – Ethylene, Propylene, Butadiene/C4s

Aromatics – Benzene, Toluene and Xylenes

Oxygenates – Methanol and MTBE

Olefins

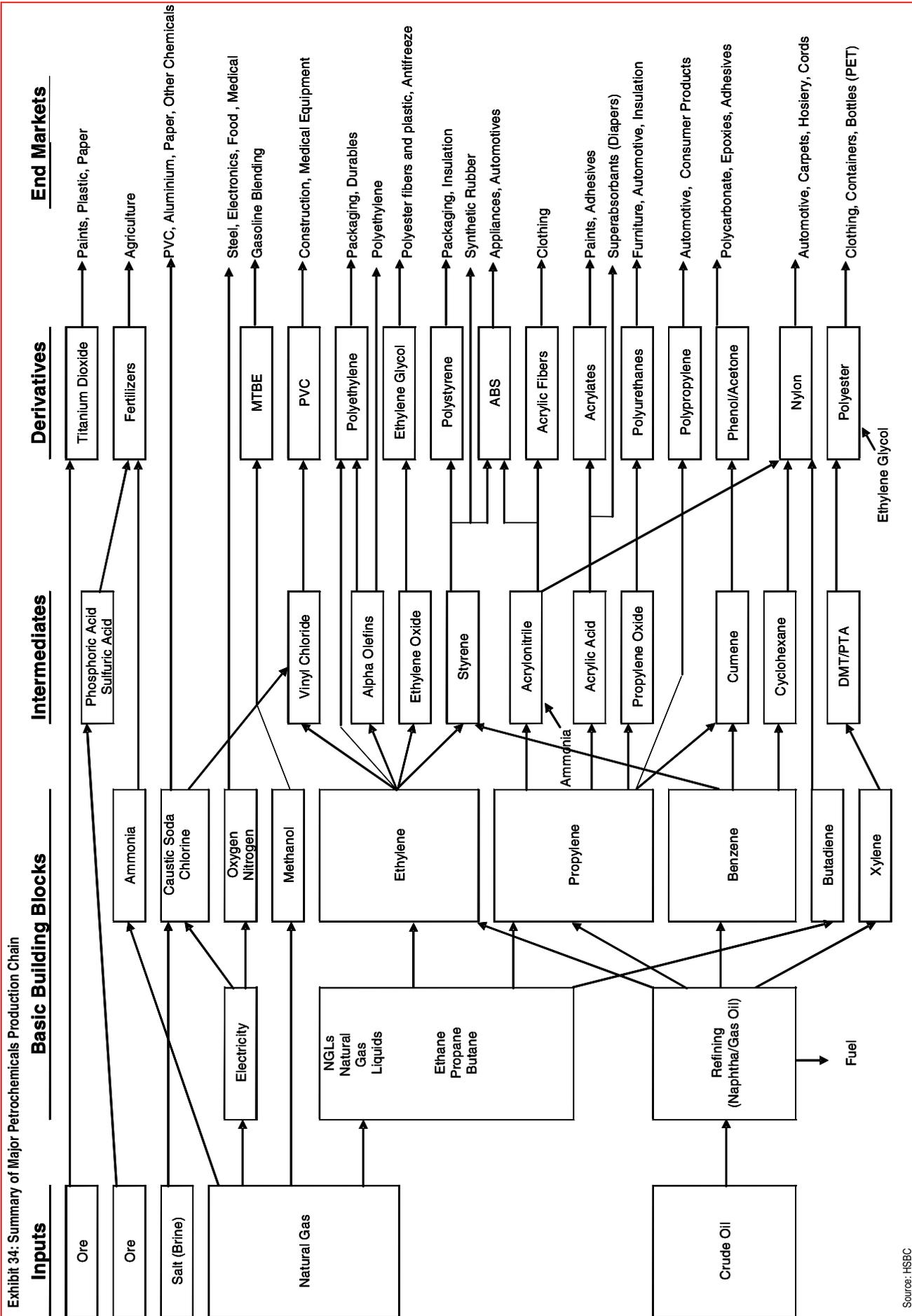
SABIC is presently the third largest producer of **ethylene** in the world after Dow and ExxonMobil, but almost certainly the most profitable. With its greater expansion plans, SABIC will overtake Exxon before 2010, and depending on the form of possible restructuring at Dow, could become the world's largest ethylene producer in the same timeframe. (Recent reports suggest that Dow is looking to

reduce its exposure in this commodity sector, possibly through a joint venture with Reliance).

Because the majority of SABIC's ethylene is produced from ethane, which does not produce **propylene** as a co-product as from naphtha or LPGs, SABIC is ranked only 13th largest producer of propylene (expected to improve slightly to 10th by 2010). This position was itself materially improved by the acquisition of DSM in 2002, which gave SABIC access to naphtha cracking capacity in West Europe, which produces around 1 tonne of propylene for every 2 tonnes of ethylene. Global propylene demand has been growing more quickly than ethylene, at 47% over the last five years compared to 3.5% for ethylene, but both monomers are expected to grow at around 4.5% in the next five years.

Butadiene is the third major olefin, used mainly in the manufacture of synthetic rubbers and MTBE (see below). Although only 14th largest C4 producer, SABIC ranks higher than this in terms of profitability due to its large average unit size and strong site integration.

Exhibit 34: Summary of Major Petrochemicals Production Chain



Source: HSBC

Aromatics

SABIC's competitive position in aromatics is less marked than in olefins. Although a low cost producer, the production process of extraction from side-steams off the olefins plants does not offer a similar level of cost advantage as enjoyed in ethylene.

The main use of **benzene** is reaction with ethylene to produce ethylbenzene and then styrene, which SABIC also include in this SBU. **Xylene** is converted into paraxylene for PTA (Pure Terephthalic Acid), which is used along with glycol to make PET and polyester. Both xylenes and **toluene** may be blended into the gasoline pool for their octane value.

Because of the closer integration into refineries, aromatics production tends to be more closely linked to major oil companies, with market leaders Shell and Exxon at 7% each of global capacity, then Sinopec and Total at 5% and then Dow the highest straight chemicals company at 4%.

Oxygenates

Methanol is produced from natural gas (methane as opposed to ethane for olefins cracking), and is the starting point for formaldehyde resins on which paint, adhesives and laminates may be based. The market is dominated by specialist producer Methanex which has 14% of global capacity, but SABIC through its 50/50 joint venture company Ar Razi is the second largest producer and with the commissioning of a fifth plant in 1Q 2008 will increase production capacity to 1.7 million tonnes per year.

After rapid growth in the 1990's as a blending component in the gasoline pool (mainly to replace tetra-ethyl lead in the move to unleaded petrol), **MTBE** (or Mono Tertiary Butyl Ether) grew to consume 26% of the global demand for Methanol. However, following subsequent environmental

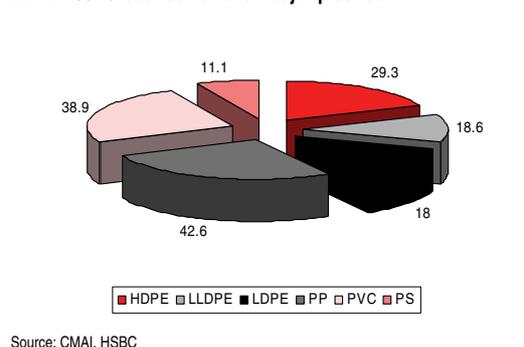
pressures on MTBE as well, its use has been phased out completely in US and is being displaced in Europe to be replaced with biofuels such as ethanol. Since 2001, global MTBE demand has declined at an average rate of 7% per year, triggering significant restructuring which has left SABIC as the world's biggest producer. SABIC's advantages are scale, cost, upstream integration and a continued ability to blend MTBE into local and Asian gasoline, but while decline is slowing this is still an area of negative growth

Polymers

This SBU was formed recently to combine all SABIC's plastic operations, merging the Polyolefins and PVC/polyester SBU's.

Polyolefins is the largest group of plastics comprising Polyethylene and Polypropylene, which are produced by the relatively simple polymerisation of their monomers into long chains of molecules.

Exhibit 35: Global demand for major plastics

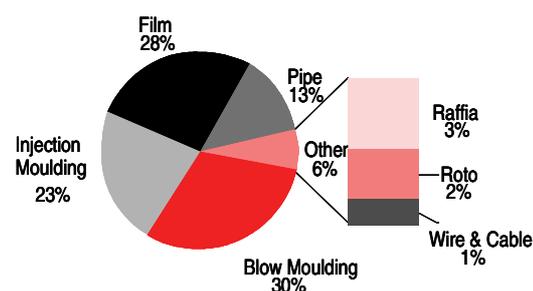


Distinct processes and technologies produce different forms of polymer, (HDPE, LLDPE, LDPE) and variances to the operating conditions, catalyst or copolymer allow different grades within these products with defined performance specifications for more specific uses. However, although there is a higher level of technical sales and support than for the bulk chemicals, this remains a relatively low margin, cost focused

commodity business with only limited ability to differentiate from the competition.

HDPE (High Density Polyethylene) is the largest volume polyethylene, which has been growing at an average of around 4.5% over the last five years and expected to continue around at least this level to 2010 as penetration increases in developing economies. It has four major application areas: blow moulding (milk bottles, medium sized containers, personal care packaging); injection moulding (crates, components, plastic furniture, dustbins); film (carrier bags); and pipe (high pressure pipes eg for gas).

Exhibit 36: HDPE demand by type [this pie looks more like an pasty chart – has been squished]



Source: CMAI, HSBC

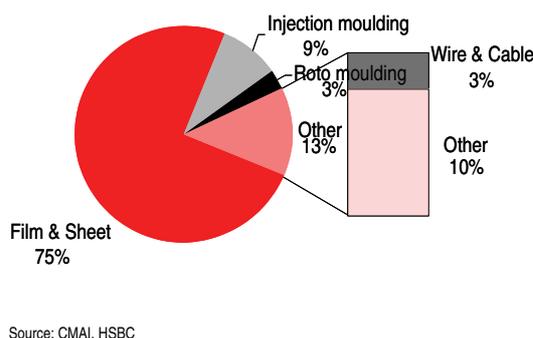
SABIC is amongst the top five manufacturers of HDPE with a 5% share of global capacity, in what is still a relatively decentralised market given the maturity of the product. The largest producer, ExxonMobil has only 8% of global capacity, the top ten only 50% of the market. SABIC is similarly sized to Dow, also at 5%, and just behind Ineos at 6% who recently bought BP's capacity only in US and western Europe and who are relatively poorly integrated.

Ethylene will normally be priced at export prices minus freight, plus the scale of the units, give production cost advantage, and SABIC has established a strong logistics network to handle high volume exports.

SABIC is building a new HDPE 400 ktpa plant at Yanbu in 2008, and 800 ktpa swing unit at SHARQ for HDPE/LLDPE, also due in 2008. SABIC Europe is also planning to build 250 ktpa in Gelsenkirchen in Germany.

LLDPE (Linear Low Density Polyethylene) has overtaken LDPE to become the second largest ethylene polymer, having grown at around 6% over the last five years. It has superior properties for film and sheet, which provide around three quarters of demand.

Exhibit 37: LLDPE demand by type



Source: CMAI, HSBC

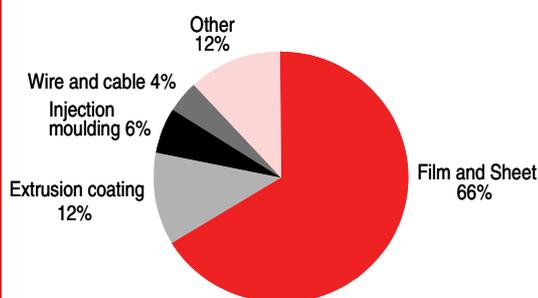
LLDPE is a more concentrated market, with Dow as market leader holding over 20% market share followed by ExxonMobil with 13%. New capacity announcements from SABIC (in third place with 7%), and Sinopec (4th, 5%) will close the gap but Dow is also expanding with JV plants in Kuwait (2008) and potentially Oman (2011?). Nova, Ineos and Eni in the top eight may find it difficult to complete on either price or proximity to faster growing markets.

SABIC is building a new 450 ktpa LLDPE plant at Yanbu in 2008, and 800 ktpa swing unit at SHARQ for HDPE/LLDPE, also due in 2008.

LDPE (Low Density Polyethylene) is the original and most mature of the polyethylenes, having been invented in the 1940s (ironically at the ICI research facilities in Wilton on Teeside which now belong to SABIC). Although replaced in

many applications by LLDPE, there remains a significant level of extrusion capacity designed to run on LDPE providing moderate growth in certain markets. The limited investment in LDPE means operating rates have been consistently higher in key regions, supporting margins and targeted investment to fill gaps in some key markets, such as the plant to be commissioned by SABIC on Teeside at the end of 2007.

Exhibit 38: LDPE demand by type

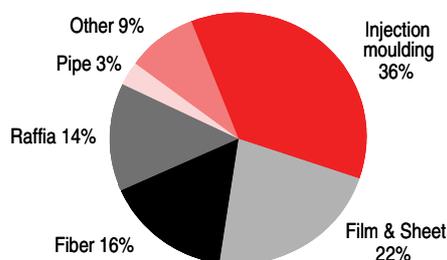


Source: CMAI, HSBC

Despite being the most mature, LDPE is the least concentrated of any of the polyethylene markets, with the ten largest producers accounting for only 43% of global capacity. SABIC is in sixth place with 4%, after Dow (8%), ExxonMobil (7%), Basell (5%), Sinopec (5%) and Eni (4%).

PP (Polypropylene) is an extremely versatile and low cost polymer, which has shown exceptional growth over the last twenty years, replacing other thermoplastics but also substituting other materials more effectively. It has high levels of rigidity, higher temperature stability than PE, and good resistance to chemicals and fatigue, which give it a performance advantage in many applications. Furthermore, the cheaper cost of propylene relative to ethylene gives it cost advantage as well. As the degree of substitution increases and the cost differential reduces, PP growth is expected to become more in line with HDPE and LLDPE, moving from close to 6% pa over the last five years to near 5% pa in the next.

Exhibit 39: Polypropylene demand by type



Source: CMAI, HSBC

With lower access to propylene, SABIC is slightly weaker in PP with 4% of global capacity in sixth place, just behind ExxonMobil. The market leader is Basell with 13% followed by Sinopec at 6%, Ineos at 5% and Total at 5%. In contrast to their strong position in PE, Dow is not in the top ten producers of PP. Basell was former joint venture between BASF and Shell which was sold to Access Industries in 2005. With Ineos, this means that significant shares of the PP market is owned by private equity holders with an assumed added incentive to run the business for cash.

SABIC is building a 450 ktpa plant at Yanbu and 375 ktpa at SHARQ Al Jubail in 2008, and with Reliance of India and Petrochina is one of the fastest growing producers. These three companies are expected to add 50% to their current capacities by 2011 compared to less than 10% for ExxonMobil and Total.

PVC (Poly Vinyl Chloride) is one of the oldest thermoplastics, developed in the 1920s, and is manufactured from VCM transferred from the Intermediates SBU. PVC is produced in two forms: flexible and rigid, with the flexible form used in film, flooring, shower curtains and auto-upholstery. Rigid PVC is used more in the construction sector such as for house sidings, window frames and pipes. Demand growth is strongest in developing nations with growing infrastructure requirements, but overall

is only slightly above that of GDP to which it is closely linked.

As the product which moves volume of two of the largest bulk chemicals, ethylene and chlorine, PVC has been a market where integrated producers have been very aggressive. In addition to campaigns over environmental and health risks in developed markets, over-capacity and the Asian crisis made this a difficult business 1996 to 2000, but from 2001 demand has improved rapidly just as the industry underwent some restructuring and inefficient plant was being closed, with the result that margins improved rapidly reaching a peak in 2004 which initiated the next round of investment. Chinese capacity is growing rapidly, having added 1.85 million tones in 2006, over 80% of the world's new supply. Most of these, which involve numerous new plants in diverse locations, is based on calcium carbide technology which does not involve ethylene. International trade represents around 15% of total consumption, with China standing out as the largest importer taking over 40% of global trade.

This is not one of the obvious areas of strategic focus for SABIC, ranking only around 25th amongst global producers. It does however benefit from its advantaged cost position and good regional growth, which may support potential investment for a vinyls complex at the SADAF joint venture with Shell, which could include a new 450 ktpa PVC plant.

PET (Polyethylene terephthalate) is the most common product in the polyester group, initially developed as a replacement for natural silk but achieving exceptional growth in the past couple of decades as a substitute for glass bottles especially in the beverage market. PET can now be used for products which require "hot fill" capabilities such as pasteurized milk. PET resin now constitutes over a quarter of total polyester end use demand. PET is the

most recycled plastic, encouraging its use but moderating the demand for virgin material.

The largest portion of polyester demand is still focused on fiber, which represented about two thirds of global demand. The bulk of this is located in Asia, which has both the high population growth to consume and low cost labour force to manufacture and export apparel and textiles.

Despite its impressive growth, averaging 11% through most of the 1990s, this has been one of the areas with the poorest profitability and returns in the industry, with producers normally struggling to achieve price rises needed to reward innovation and investment, with a customer base which has proved extremely aggressive on costs. Several major players exited in the late 1990s, including ICI who had done much to develop the initial market. Around half the capacity is located in Asia and despite the consolidation the top ten producers account for less than half production. SABIC is not included in the top 25 producers.

Intermediates

This SBU groups bulk petrochemicals which are either derivatives of the Basic Chemicals business such as ethylene glycol and vinyl chloride or produced separately, such as caustic soda. Much of the production of this division forms the raw materials for the PVC/Polyester SBU. It is organised into four management units: Fiber Intermediates, Chemical Intermediates, Industrial gasses, and Linear Alpha Olefins.

Fiber Intermediates

MEG (mono ethylene glycol) is the main derivative of ethylene oxide, into which most production is tightly integrated due to the difficulty in transportation (it is highly reactive, explosive and toxic). Around 80% of MEG is used in the production of polyester which then goes into PET bottles, polyester fibers, film and

pellets. 12% of MEG is used in anti-freeze and de-icers, the remainder in industrial solvents. Its two co-products (di- and tri ethylene glycol, **DEG** and **TEG**) have traditionally seen lower demand growth, and have generally been placed into the anti-freeze market at a discount, but this is changing with the growth of first intent demand into unsaturated polyester resins especially in China, so that recently DEG has sold at a premium to MEG. MEG growth is estimated at 5.5% over the next five years, down slightly from 6.2% seen over the last five.

SABIC's 50/50 joint ventures make it the world's second-largest ethylene glycol producer, with a share of capacity at around 12%, just behind Dow, with an estimated 13% after its acquisition of Union Carbide and some way ahead of Formosa in third place. SABIC has established itself with a strong sales position in Asia and West Europe as major markets for MEG, which it is able to supply at advantaged cost.

PTA (purified terephthalic acid) is derived from xylene via its main derivative para-xylene, and is used predominantly in the production of polyester, including PET (polyethylene terephthalate) notably for bottles. SABIC has a smaller position in PTA than other key chemicals, with around 1% of global capacity. Growth has been strong but capacity is diverse, with 75% of production capacity in Asia. In China, there are some 120 different producers with capacity over 10 ktpa each. SABIC has not announced significant expansions in PTA in the coming round of investments.

Chemical Intermediates

Caustic soda (or sodium hydroxide) is produced along with chlorine, one of the largest volume chemicals in the industry. It has a variety of industrial uses, in chemicals, detergents, metals, textiles, pulp and paper and many others. Demand is close to GDP and is expected to be around 3%

to 2010, with additional capacity likely to be required by the end of the decade. SABIC is not amongst the top ten producers, Dow is the leader with 11%.

EDC (ethylene di-chloride) is produced by reacting the chlorine with ethylene, and is used almost entirely for the next stage into **VCM** (vinyl chloride monomer), the raw material for PVC, which SABIC reports in its PVC/Polyester SBU. Vinyls margins have normally under-performed those of other plastics. EDC operating rates remain in the low to mid 80s %, and EDC is one of the highest volume chemicals traded internationally. Industry leaders are Dow, Occidental and Formosa Plastics. SABIC does not have a very strong position in EDC or VCM relative to its other high volume products, and it is not an area of investment focus.

Other Chemical intermediates are oxo-alcohols including **2-EH** (2-ethyl hexanol), **DOP** (di-octyl phthalate) and **IBAL** (iso-butyl aldehyde). Involvement in this business is linked to PVC manufacture. Around 50% of 2-EH is used to make plasticisers such as DOP, which is added to certain plastics (typically PVC) to enhance its flexibility and malleability. Phthalate plasticisers have come under intense environmental pressure and DOP has been relabelled to a higher risk category. Other uses of 2-EH include fuel additives. IBAL is used as a solvent for nitrocellulose in hydraulic fluids and as a resin modifier.

Industrial Gasses includes the chlorine production described above.

Linear Alpha Olefins are more speciality-type products, with a new unit using SABIC/Linde technology completed in 2006 to produce various higher olefins which have a variety of uses as co-polymers in specific grades of HDPE and LLDPE, as well as lubricants, surfactants and oilfield chemicals.

Fertilizers.

SABIC is one of the leaders in the international fertilizer industry, particularly in the nitrogen sector where access to cheap natural gas and investment in world-scale plant has provided significant cost advantage. The Fertilizer SBU consists of two departments, Ammonia/ phosphates and Urea, and has three fertilizer affiliates. SABIC consolidates its ownership of SAFCO into group results, but this is also a public company with 47% of its stock traded on the Saudi exchange.

Ammonia/Phosphates

Ammonia is one of the largest volume inorganic chemicals (along with sulfuric acid and chlorine), with commercial production dating back to just before the First World War. Today it is produced predominantly from natural gas, although some is still based on coal and coke.

Ammonia is used mainly in agro-chemicals. Urea is the largest use, representing around two thirds of demand (see below). Other key derivatives are nitric acid, of which nearly 75% is used to produce fertilizers such as ammonium nitrate. Ammonia also has chemical uses such as Acrylonitrile (mainly into textiles), Caprolactam and hydrogen cyanide.

Demand tracks crop planting cycles and population growth over the long term, and with Asia accounting for half of the global market, demand has recently been robust.

Ammonia is a very fragmented market, with the top ten producers making up only 10% of the world's capacity, and only three (Yara, PCS and Terra) having production in more than one region. However, despite its lack of market size, SABIC is a significant player, due to the strong competitive advantage of cheap natural gas and level of integration especially into Urea.

Urea

Urea is a large volume organic chemical produced from ammonia and carbon dioxide, to which production is normally integrated because of the costs and safety issues associated with transporting ammonia. It is the key nitrogen fertilizer, which accounts for around 90% of global demand, with around 10% going into industrial uses, of which the largest is the production of melamine for example for laminate flooring.

Demand is estimated to have grown at around 4% over the past five years, and had been expected to slow leaving plant utilization in the low 80's per cent. But the significant improvement in agricultural margins, due in a large part to the development of demand of normally surplus products into the biofuels market, has encouraged a step up in fertilizer usage, and over the last year tight supply has increased operating rates and significantly improved Urea prices and margins.

Urea capacity is more geographically diverse than for many industrial chemicals, with India a major player with 20% of total capacity and the rest of Asia nearly 40%. However, much Indian production is highly marginal, depending on subsidized gas prices to support local production in an area, which is politically sensitive. Underlying costs are hardly competitive and without support could be replaced by low cost imports if supply is shown to be reliable. SABIC is the major player in the Middle East, which has 10% of global capacity, and is amongst the lowest cost producers on a delivered basis to coastal sites in Asia. With the SAFCO IV plant, which started production in 1Q 2007, SABIC has enhanced its position as the world's largest producer and exporter.

Metals sector:

Business description

SABIC is closely associated with the petrochemicals industry in which it is an acknowledged leader. Less widely recognized is its position in the steel market, where it is also a significant player in a region showing some of the fastest growth in the world.

Sales in this sector, mainly via its 100% owned subsidiary Hadeed, were SAR 7.6bn (around USD2bn) in 2006, contributing SAR 1.7bn to net earnings, some 8.5% of the Group total. The business represents a second area of growth, having successfully commissioned a significant expansion in its steel capacity at the beginning of 2007. With strong demand in the region, this expansion is already sold out and prices have increased.

Middle Eastern market for steel

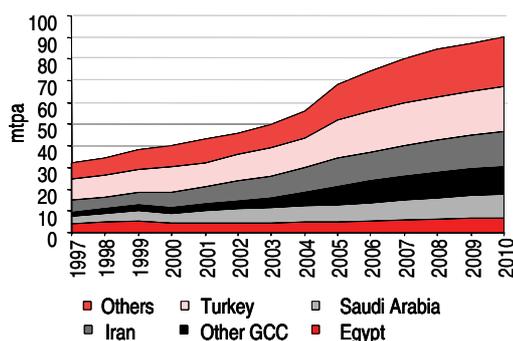
Demand in the MENA region (Middle East and North Africa, including Turkey) is dominated by long products, most of which are used in construction. Flat products are also used significantly in the construction industry, where there are significant infrastructure projects but limited manufacture of white goods and automobiles, key end uses for flat steel in other regions.

Growth in steel demand in Saudi Arabia has been significantly slower than in the rest of the region, at only 2.8% CAGR from 2000 to 2005, compared to 11.9% in other GCC countries and 11.3% in the region overall. In the period to 2010 however, this relative position changes significantly, with the growth rate in Saudi forecast to more than double to 6.5%, in line with the rest of the GCC (for which this represents more moderate growth than seen previously) and ahead of the rest of the region at 5.4%

Supported by the strong growth in demand, crude steel production in the MENA region has grown rapidly in the last decade, from 7.8 million tonnes per year in 1997 to 14.1 mtpa in 2005. Most production in the region is from Direct Reduction of Iron (DRI), in which lump iron ore and/or iron oxide pellets are reduced (have oxygen removed) in the presence of a hydrocarbon gas (usually methane) to produce Direct Reduction Iron.

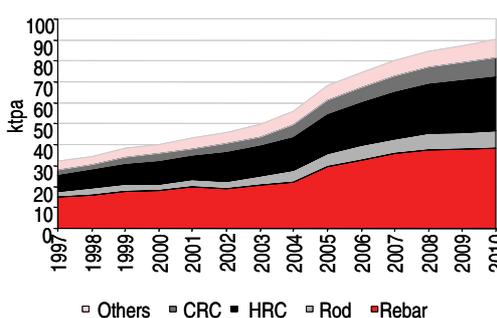
This may then be converted into steel using an electric arc furnace, often with lower cost scrap used in the process as the high purity of DRI dilutes the contaminants. Pure DRI is the feed for around 60% of steel produced in MENA, with around 25% from scrap and 15% from blast furnace production. DRI output is estimated at around 10 mtpa in 2006, and is expected to increase rapidly to 19.3 mtpa by the end of 2010. This will require significant increases in the

Exhibit 40: Steel demand in MENA countries



Source: Metal Bulletin, HSBC

Exhibit 41: Requirement for steel imports into MENA

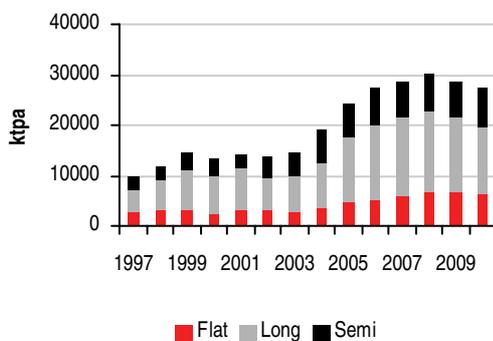


Source: Metal Bulletin, HSBC

imports of both iron ore and scrap into the region.

Finished steel output in the MENA region is higher than crude steel output, due to the use of semi-finished imported material in the form of billet (an intermediate for long products), slab (intermediate flat) and HRC (Hot Rolled Coil). This contributes to an increasing net import requirement of some 25 mtpa in 2005, which is expected to increase to around 30 mtpa in 2007.

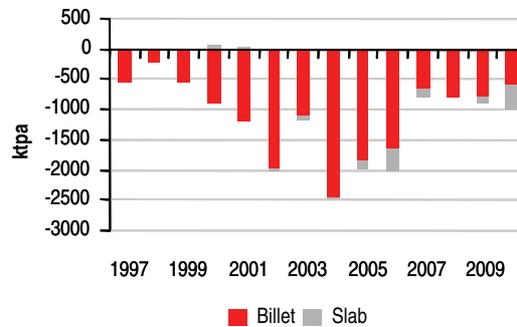
Exhibit 42: Import requirements into MENA region



Source: Metal Bulletin, HSBC

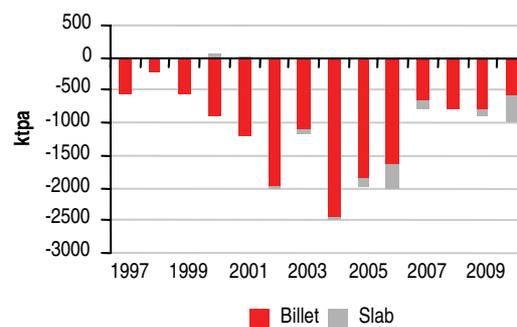
With the accelerated growth anticipated in Saudi Arabia, the country's net deficit in finished steel is expected to remain or increase through to 2010. Although there is a reduction in the import requirement for semi-finished products as new capacity has come on stream in 2007, imports remain around 1 mtpa on flat products and grow steadily from 800 ktpa in 2006 to 1.1 mtpa in 2010 for long products, with a significant structural deficit in rebar with high construction demand providing a firm market for suppliers.

Exhibit 43: Saudi import requirements for semi-finished steel



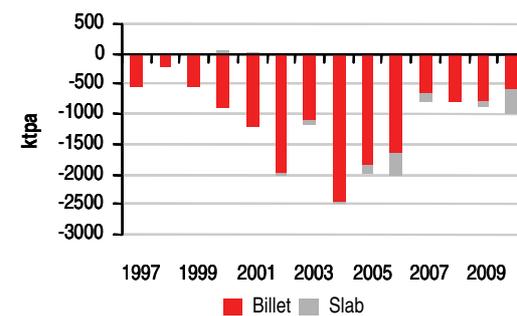
Source: Metal Bulletin, HSBC

Exhibit 44: Saudi import requirements for long steel products



Source: Metal Bulletin, HSBC

Exhibit 45: Saudi import requirements for flat steel products



Source: Metal Bulletin, HSBC

Appendix 3

Glossary of terms

ABS: Acrylonitrile-Butadiene-Styrene Terpolymer. An engineering plastic known for its ductility, impact resistance, thermal and chemical resistance and a 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 which 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, children's toys etc.

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 = $(\text{production/capacity}) * 100\%$.

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 while caustic soda is used for a variety of applications with bleaching pulp and paper being the largest one.

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

Commodity chemical: Chemicals which 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 useable 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).

ElectronNegatively 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): Ethylbenzene is a colorless organic liquid with a sweet, gasoline-like odor. The greatest use - over 99 percent - 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 $C=C$ (C_2H_4).

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 sterilising medical items, fumigating spices, and manufacturing other chemicals. Pure ethylene oxide is a colourless gas at room temperature and a mobile, colourless 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 fibre: Polyester fibre 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 the 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 by-product 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 analysing 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, communication equipment etc. 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.

Hetrogeneous: 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 hetrogeneous.

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

Hydrocarbon: 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, semi-conductor manufacture or oil drilling.

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

Injection Moulding: Injection moulding 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 mould.

Inorganic chemistry: Non-carbon based chemistry.

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

Insecticides: Chemicals used to control pests/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 polymerisation, which produces water as a by-product.

Isomer: A compound having the same molecular weight but differing in physical or chemical properties. Iso-butane 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, trash can 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 which 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.

Neutralisation: 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.

Nox, nitrous oxide: 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, volume etc. It obligates the offtaker to accept the product regardless of market conditions.

Olefin: A product with straight chain hydrocarbons which 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 (such as 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 .i.e. melting point, boiling point, hardness etc.

Pigment: Coloured, insoluble substance (either organic or inorganic) used to impart colour.

Plastic: 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 referred to a production process which results in producing both products.

Poly vinyl chloride (PVC): Part of the vinyls chain. In flexible form used for film, flooring, auto upholstery etc., while in rigid form used in siding for houses, pipes etc.

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.

Polymerisation: Process by which monomers are joined together 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 moulding 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: An alkyl epoxide used principally as a chemical intermediate.

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 which appear as an organic vapour.

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, ie, heat resistance, adhesive properties etc.

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 semi-fluid, placed between two opposing solid materials, becomes solid itself (by solvent evaporation or chemical reaction), bonds to the surfaces it is applied to and accommodates joint movement. Prevents excessive absorption of

adhesive 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 planarisation in the production of semi-conductors.

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 chemical: Chemicals produced in small tonnages, 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 non-woven applications such as filling for pillows, diapers, jackets etc.

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

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

Styrene-butadiene rubber (SBR): Styrene-butadiene rubber is a high molecular weight

polymer. Because of its excellent abrasion resistance, Styrene-butadiene rubber is widely used in automobile and lorry (truck) tyres (tires), belting, flooring, wire and cable insulation, 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.

Sulphonation: A chemical process that adds sulphur 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 on cooling.

Thermoset: Resin produced via polycondensation of monomers. It is insoluble and commonly used in non-molded 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 Polyethylene with molecular weight in the 1,500,000 to 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.

Notes

Notes

Notes

Disclosure appendix

Analyst certification

The following analyst(s), who is(are) primarily responsible for this report, certifies(y) that the views expressed herein accurately reflect their personal view(s) about the subject security(ies) and issuer(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Peter Hutton and Hassan I. Ahmed.

Important disclosures

Stock ratings and basis for financial analysis

HSBC believes that investors utilise various disciplines and investment horizons when making investment decisions, which depend largely on individual circumstances such as the investor's existing holdings, risk tolerance and other considerations. Given these differences, HSBC has two principal aims in its equity research: 1) to identify long-term investment opportunities based on particular themes or ideas that may affect the future earnings or cash flows of companies on a 12 month time horizon; and 2) from time to time to identify short-term investment opportunities that are derived from fundamental, quantitative, technical or event-driven techniques on a 0-3 month time horizon and which may differ from our long-term investment rating. HSBC has assigned ratings for its long-term investment opportunities as described below.

This report addresses only the long-term investment opportunities of the companies referred to in the report. As and when HSBC publishes a short-term trading idea the stocks to which these relate are identified on the website at www.hsbcnet.com/research. Details of these short-term investment opportunities can be found under the Reports section of this website.

HSBC believes an investor's decision to buy or sell a stock should depend on individual circumstances such as the investor's existing holdings and other considerations. Different securities firms use a variety of ratings terms as well as different rating systems to describe their recommendations. Investors should carefully read the definitions of the ratings used in each research report. In addition, because research reports contain more complete information concerning the analysts' views, investors should carefully read the entire research report and should not infer its contents from the rating. In any case, ratings should not be used or relied on in isolation as investment advice.

Rating definitions for long-term investment opportunities

Stock ratings

HSBC assigns ratings to its stocks in this sector on the following basis:

For each stock we set a required rate of return calculated from the risk free rate for that stock's domestic, or as appropriate, regional market and the relevant equity risk premium established by our strategy team. The price target for a stock represents the value the analyst expects the stock to reach over our performance horizon. The performance horizon is 12 months. For a stock to be classified as Overweight, the implied return must exceed the required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). For a stock to be classified as Underweight, the stock must be expected to underperform its required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). Stocks between these bands are classified as Neutral.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation of coverage, change of volatility status or change in price target). Notwithstanding this, and although ratings are subject to ongoing management review, expected returns will be permitted to move outside the bands as a result of normal share price fluctuations without necessarily triggering a rating change.

*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 10 April 2007, the distribution of all ratings published is as follows:

Overweight (Buy)	45%	(16% of these provided with Investment Banking Services)
Neutral (Hold)	35%	(16% of these provided with Investment Banking Services)
Underweight (Sell)	20%	(12% of these provided with Investment Banking Services)

HSBC & Analyst disclosures

Disclosure checklist

Company	Ticker	Recent price	Price Date	Disclosure
SAUDI BASIC INDUSTRIES CO	2010.SE	121.00	09-Apr-2007	2

Source: HSBC

- 1 HSBC* has managed or co-managed a public offering of securities for this company within the past 12 months.
- 2 HSBC expects to receive or intends to seek compensation for investment banking services from this company in the next 3 months.
- 3 At the time of publication of this report, HSBC is a market maker in securities issued by this company.
- 4 As of 31 March 2007 HSBC beneficially owned 1% or more of a class of common equity securities of this company.
- 5 As of 28 February 2007, this company was a client of HSBC or had during the preceding 12 month period been a client of and/or paid compensation to HSBC in respect of investment banking services.
- 6 As of 28 February 2007, this company was a client of HSBC or had during the preceding 12 month period been a client of and/or paid compensation to HSBC in respect of non-investment banking-securities related services.
- 7 As of 28 February 2007, this company was a client of HSBC or had during the preceding 12 month period been a client of and/or paid compensation to HSBC in respect of non-securities services.
- 8 A covering analyst/s has received compensation from this company in the past 12 months.
- 9 A covering analyst/s or a member of his/her household has a financial interest in the securities of this company, as detailed below.
- 10 A covering analyst/s or a member of his/her household is an officer, director or supervisory board member of this company, as detailed below.

Analysts are paid in part by reference to the profitability of HSBC which includes investment banking revenues.

For disclosures in respect of any company, please see the most recently published report on that company available at www.hsbcnet.com/research.

* HSBC Legal Entities are listed in the Disclaimer below.

Additional disclosures

- 1 This report is dated as at 12 April 2007.
- 2 All market data included in this report are dated as at close 09 April 2007 , unless otherwise indicated in the report.
- 3 HSBC has procedures in place to identify and manage any potential conflicts of interest that arise in connection with its Research business. HSBC's analysts and its other staff who are involved in the preparation and dissemination of Research operate and have a management reporting line independent of HSBC's Investment Banking business. Chinese Wall procedures are in place between the Investment Banking and Research businesses to ensure that any confidential and/or price sensitive information is handled in an appropriate manner.

Disclaimer

**Legal entities as at 5 September 2006*

HSBC Bank Middle East Ltd, Dubai; The Hongkong and Shanghai Banking Corporation Limited, Hong Kong; HSBC Securities (Asia) Limited, Taipei Branch; HSBC Securities (Canada) Inc, Toronto; HSBC Bank, Paris branch; HSBC Trinkaus & Burkhardt AG, Dusseldorf; 000 HSBC Bank (RR), Moscow; HSBC Securities and Capital Markets (India) Private Limited, Mumbai; HSBC Securities (Japan) Limited, Tokyo; HSBC Securities Egypt S.A.E., Cairo; HSBC Investment Bank Asia Limited, Beijing Representative Office; The Hongkong and Shanghai Banking Corporation Limited, Singapore branch; The Hongkong and Shanghai Banking Corporation Limited, Seoul Securities Branch; HSBC Securities (South Africa) (Pty) Ltd, Johannesburg; HSBC Pantelakis Securities S.A., Athens; HSBC Bank plc, London, Madrid, Milan, Stockholm, Tel Aviv, HSBC Securities (USA) Inc, New York; HSBC Yatirim Menkul Degerler A.S., Istanbul; HSBC Stockbroking (Australia) Pty Limited

Issuer of report

HSBC Saudi Arabia Limited

PO Box 9084

Riyadh 11413

Kingdom of Saudi Arabia.

Telephone: + (966-1) 225-7103,

225-7135 96614 5077333

Fax: +(9661) 470-6942

Website: www.hsbcnet.com/research

In the UK this document has been approved by HSBC Saudi Arabia Limited ("HSBC") for the information of its Customers (as defined in the Rules of FSA) and those of its affiliates only. In the UK this report may only be distributed to persons of a kind described in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001. The protections afforded by the UK regulatory regime are available only to those dealing with a representative of HSBC Bank plc in the UK. It is not intended for Private Customers in the UK. If this research is received by a customer of an affiliate of HSBC, its provision to the recipient is subject to the terms of business in place between the recipient and such affiliate. In Australia, this publication has been distributed by HSBC Stockbroking (Australia) Pty Limited (ABN 60 007 114 605) for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). It makes no representations that the products or services mentioned in this document are available to persons in Australia or are necessarily suitable for any particular person or appropriate in accordance with local law. No consideration has been given to the particular investment objectives, financial situation or particular needs of any recipient. This publication has been distributed in Japan by HSBC Securities (Japan) Limited. It may not be further distributed, in whole or in part, for any purpose. In Hong Kong, this document has been distributed by The Hongkong and Shanghai Banking Corporation Limited in the conduct of its Hong Kong regulated business for the information of its institutional and professional customers; it is not intended for and should not be distributed to retail customers in Hong Kong. The Hongkong and Shanghai Banking Corporation Limited makes no representations that the products or services mentioned in this document are available to persons in Hong Kong or are necessarily suitable for any particular person or appropriate in accordance with local law. All inquiries by such recipients must be directed to The Hongkong and Shanghai Banking Corporation Limited. HSBC Securities (USA) Inc. accepts responsibility for this research report prepared by its foreign affiliate. All U.S. persons receiving this report and wishing to effect transactions in any security discussed herein should do so with HSBC Securities (USA) Inc. in the United States and not with the foreign affiliate, the issuer of this report. Note, however, that HSBC Securities (USA) Inc. is not distributing this report and has not contributed to or participated in its preparation. In Singapore, this publication is distributed by The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch for the general information of institutional investors or other persons specified in Sections 274 and 304 of the Securities and Futures Act (Chapter 289) ("SFA") and accredited investors and other persons in accordance with the conditions specified in Sections 275 and 305 of the SFA. This publication is not a prospectus as defined in the SFA. It may not be further distributed in whole or in part for any purpose. The Hongkong and Shanghai Banking Corporation Limited Singapore Branch is regulated by the Monetary Authority of Singapore.

This document is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. HSBC has based this document on information obtained from sources it believes to be reliable but which it has not independently verified; HSBC makes no guarantee, representation or warranty and accepts no responsibility or liability as to its accuracy or completeness. The opinions contained within the report are based upon publicly available information at the time of publication and are subject to change without notice. Past performance is not necessarily a guide to future performance. The value of any investment or income may go down as well as up and you may not get back the full amount invested. Where an investment is denominated in a currency other than the local currency of the recipient of the research report, changes in the exchange rates may have an adverse effect on the value, price or income of that investment. In case of investments for which there is no recognised market it may be difficult for investors to sell their investments or to obtain reliable information about its value or the extent of the risk to which it is exposed.

© Copyright. HSBC Saudi Arabia Limited 2007, ALL RIGHTS RESERVED. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, on any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of HSBC Saudi Arabia Limited 105/10/2004 MICA (P) 137/08/2006

Global Natural Resources & Energy Research Team

Oil & Gas

Global

Paul Spedding
Analyst, Global Energy Sector Head
+44 20 7991 6787 paul.spedding@hsbcib.com

Europe

David Philip
Analyst
+44 20 7991 5388 david.philip@hsbcib.com

Bulent Yurdagal
Analyst
+90 212 366 1604 bulentyurdagal@hsbc.co.tr

Asia-Pacific

Henik Fung
Analyst
+852 2996 6557 henikfung@hsbc.com.hk

Samuel S W Lee
Analyst
+852 2996 6585 samuelswlee@hsbc.com.hk

Andrew S F Chan
Analyst
+852 2996 6569 andrewsfchan@hsbc.com.hk

Vishwas Katela
Analyst
+91 22 2268 1236 vishwaskatela@hsbc.co.in

Metals & Mining

Paul McTaggart
Analyst, Global Sector Head, Metals & Mining
+44 20 7991 6798 paul.mctaggart@hsbcib.com

Marcus Lun
Analyst
+44 20 7991 6886 marcus.lun@hsbcib.com

Alex James
Analyst
+44 20 7991 3448 alex1.james@hsbcib.com

Alan Coats
Global Steel, Analyst
+44 20 7991 6764 alan.coats@hsbcib.com

North America

Victor Flores
Analyst
+1212 525 3053 victor.flores@us.hsbc.com

James Steel
Analyst, Commodities
+ 1 212 525 6515 james.steel@us.hsbc.com

EMEA

Guy Czartowski
Analyst
+44 20 7991 5333 guy.czartowski@hsbcib.com

Asia-Pacific

Daniel Kang
Analyst
+852 2996 6669 danielkang@hsbc.com.hk

Specialist sales

Paul Durham
+1 212 525 0221 paul.durham@us.hsbc.com

Kathleen Fraser
+44 20 7991 5347 kathleen.fraser@hsbcib.com

Stephen Doe
+44 20 7991 5383 stephen.doe@hsbcib.com

Utilities

Europe

Pierre Stiennon
Analyst, Global Sector Head
+44 20 7991 6761 pierre.stiennon@hsbcib.com

Verity Mitchell
Analyst
+44 20 7991 6840 verity.mitchell@hsbcib.com

Paris Mantzavras
Analyst
+30 210 696 5210 paris.mantzavras@hsbc.gr

Amit Khanna
Analyst
+ 44 20 7991 6710 amit.khanna@hsbcib.com

Europe – Credit

Rodolphe Ranouil
Analyst
+44 20 7991 6855 rodolphe.ranouil@hsbcgroup.com

Latin America

Victor Galliano
Analyst
+1 212 525 5253 victor.galliano@us.hsbc.com

Asia-Pacific

Michael Lee
Analyst
+852 2996 6941 michaelhlee@hsbc.com.hk

Elvis Au-Yeung
Associate
+852 2996 6555 elvisauyeung@hsbc.com.hk

Prasad Dahapute
Analyst
+91 22 2268 1246 prasaddahapute@hsbc.co.in

Asia-Pacific – Credit

Oon Jin Ch'ng
Analyst
+852 2822 3232 chngoonjin@hsbc.com.hk

North America

Angie Storozynski
Analyst
+1 212 525 4133 angie.storozynski@us.hsbc.com

North America – Credit

Shawn Burke
Analyst
+1 212 525 3132 shawn.burke@us.hsbc.com

Chemicals

North America

Hassan Ahmed
Analyst, Global Sector Head, Chemicals
+1 212 525 5359 hassan.ahmed@us.hsbc.com

Sriharsha Pappu
Analyst, Chemicals
+1 212 525 7959 sriharsha.pappu@us.hsbc.com

Saudi Arabia

Peter Hutton
Head of Saudi Research
+966 1 225 7170 peterhutton@hsbc.com

Alternative Energy

Robert Clover
Analyst, Global Sector Head
+44 20 7991 6741 robert.clover@hsbcib.com

James Magness
Analyst
+ 44 20 7991 3464 james.magness@hsbcib.com