

Industries Qatar

Company Initiation

8 June 2010



Setting Itself to Attain Higher Peaks

- **Double-digit earnings growth across business segments supported by healthy capacity expansions**
- **Company to maintain its healthy balance sheet, low-cost position, high margins, FCF generation, and c5% dividend yield**
- **Initiate coverage with a Buy recommendation and TP of QAR142/share (48% upside)**

Industries Qatar's (IQ) earnings growth rate is not at risk given organic expansion and low volume risk due to the cost advantage it has. IQ's EPS will grow at a double-digit rate for the next five years, mainly supported by a c50% expansion in capacity with projects worth QAR13 billion in the pipeline. Given its cost advantage in urea and petrochemicals and strong local demand in steel, IQ faces very little volume risk.

IQ's superior earnings growth rate does not depend on sharp increases in product prices. Given weak global recovery and supply pressure we already factor in conservative price assumptions for all segments with a price CAGR of c5% for the next five years. The fertilizer market is balanced while petrochemicals are facing supply pressure. The steel segment demand is safest because of strong local demand. IQ is favorably placed in these conditions because of its diversified portfolio, lower export dependency due to local consumption of steel output, and healthy capacity expansion, which will continue to support earnings growth under any price scenario.

Due to high margins and strong cash flow generation, IQ's balance sheet will not be burdened by the heavy capital expenditure layout. The debt-to-equity ratio will remain below 20% and the dividend yield over 5%. We expect the company to keep generating FCF worth around QAR5 billion every year while growing its EPS at a 17% CAGR for the next five years.

We expect no material changes in the feedstock supply agreement in the medium term. As per our estimates, the company's feedstock supply agreement is not fixed, and the cost of its feedstock will remain between USD1.2/mmbtu and USD2.2/mmbtu, enabling high margins.

We view the current stock price as an opportunity to capture the strong growth to be shown by an undervalued chemical company with a global low-cost position. With the help of an expansion in margins and new startups, IQ's operating income will rebound 40% YoY in 2010e. Despite high margins and growth rates, IQ is trading at 2010e PE multiple of 10.7x—a 30% discount to its peer average. We initiate coverage on IQ with a Buy rating and TP of QAR142/share (48% upside).

KPIs (QAR million)	2009a	2010e	2010c	2011e	2011c
Revenue	9,657	11,610	11,165	14,203	13,075
EBITDA	3,847	5,442	4,783	7,076	6,276
EBITDA Margin	40%	47%	43%	50%	48%
Net Income	5,003	5,026	4,843	6,308	6,003
EPS ex Other Income	8.87	9.14	8.90	11.47	10.65
EPS Growth	-33%	3%	39%	26%	20%
P/E	11.08	11.65	11.97	9.29	10.00
EV/EBITDA	14.02	11.23	12.78	8.64	9.74
Dividend Yield	5%	6%	5%	7%	6%

a = announced, e = HC estimates, c = consensus estimates

Buy

Target Price (QAR)	141.9
Market Price (QAR)	95.70
Upside	48.0%

Listed On	DSM
Bloomberg Code	IQCD QD
Reuters Code	IQCD.QA

Market Cap (QAR mn)	64,350
Market Cap (USD mn)	17,679

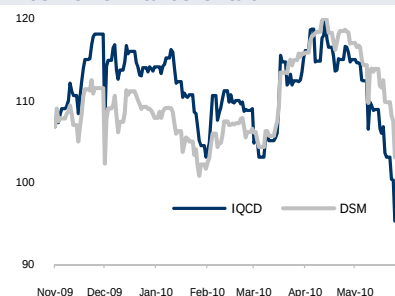
Net Debt (USD mn)	(45)
EV (USD mn)	17,634

Foreign Ownership Limit	25%
Foreign Ownership Level	6.7%
Daily Turnover (QAR mn)	59.8
Daily Turnover (USD mn)	16.3

Shareholder Structure

Free Float	30%
Qatar Petroleum	70%

Price Performance Chart



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* Disclaimer: See page 47



Financials Summary

	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Income Statement									
Revenue	7,778	9,326	14,743	9,657	11,610	14,203	16,692	19,507	20,084
Revenue Growth		20%	58%	-35%	20%	22%	18%	17%	3%
EBITDA	3,797	4,875	7,167	3,847	5,442	7,076	7,722	8,694	9,017
EBITDA Growth		28%	47%	-46%	41%	30%	9%	13%	4%
EBIT	3,273	4,475	6,706	3,323	4,777	6,203	6,525	7,393	7,716
EBIT Growth		37%	50%	-50%	44%	30%	5%	13%	4%
Net Income	3,622	4,985	7,278	5,003	5,026	6,308	6,601	7,506	7,925
EPS Ex-Other Income	6.52	9.38	13.00	6.38	8.83	11.16	11.69	13.34	14.10
EPS Ex-Other Income Growth		44%	39%	-51%	38%	26%	5%	14%	6%
Earnings per Share (EPS)	7.24	9.97	13.23	8.87	9.14	11.47	12.00	13.65	14.41
EPS Growth		38%	33%	-33%	3%	26%	5%	14%	6%
Dividend per Share (DPS)	3.50	4.00	8.00	5.00	5.48	6.88	7.20	8.19	8.64
Dividend Payout Ratio	48%	40%	60%	56%	60%	60%	60%	60%	60%
Dividend Yield (%)	3%	4%	4%	5%	6%	7%	7%	8%	9%
Margins									
EBITDA Margin	49%	52%	49%	40%	47%	50%	46%	45%	45%
EBIT Margin	42%	48%	45%	34%	41%	44%	39%	38%	38%
Net Income Margin	47%	53%	49%	52%	43%	44%	40%	38%	39%
Balance Sheet									
Cash and Cash Equivalents	4,626	6,171	9,445	5,834	3,110	2,067	2,997	5,935	9,296
Total Debt	3,009	4,377	4,736	6,809	6,361	6,347	6,556	6,763	6,688
Net Debt	2,459	2,730	3,408	(165)	(2,582)	(3,624)	(2,576)	362	3,723
Net PPE	6,386	6,364	6,138	8,115	7,450	16,977	21,479	21,178	20,877
Total Assets	14,880	20,142	27,450	27,121	26,154	29,551	32,458	36,210	39,658
Shareholder Equity	11,084	13,678	18,254	19,060	18,875	22,167	24,984	28,529	31,950
Book Value per Share	22.17	27.36	33.19	34.65	34.32	40.30	45.43	51.87	58.09
LTD/(LTD + Equity)	15%	15%	16%	23%	23%	20%	18%	16%	15%
Cash Flow Statement									
Op. Cash Flow/Share	8.20	12.15	10.21	7.67	8.73	11.77	12.61	14.36	16.12
Distr. Cash Flow/Share	3.98	7.09	9.80	5.88	0.60	3.59	8.79	12.54	14.30
CAPEX/Sales	27%	27%	21%	50%	39%	32%	13%	5%	5%
Depreciation/Sales	7%	4%	3%	5%	6%	6%	7%	7%	6%
Key Ratios									
Current Ratio	4.47	2.48	2.78	4.85	5.96	4.65	5.57	7.16	8.59
Return on Capital (ROC)	30%	33%	35%	20%	21%	25%	23%	24%	22%
Return on Equity (ROE)	35%	40%	46%	27%	26%	31%	28%	28%	26%
Return on Assets (ROA)	27%	29%	30%	19%	19%	23%	22%	22%	21%



Consensus vs. HC Research

Consensus Estimates				HC Research			
	2010e	2011e	2012e		2010e	2011e	2012e
Sales	11,165	13,075	15,918	Sales	11,610	14,203	16,692
EBITDA	4,783	6,276	7,841	EBITDA	5,442	7,076	7,722
Net Profit	4,843	6,003	7,123	Net Profit	5,026	6,308	6,601
EPS	8.90	10.65	12.56	EPS	9.14	11.47	12.00
DPS	4.80	6.15	7.59	DPS	5.48	6.88	7.20

Consensus vs. HC Research

	2010e	2011e	2012e
Sales	4%	9%	5%
EBITDA	14%	13%	-2%
Net Profit	4%	5%	-7%
EPS	3%	8%	-4%
DPS	14%	12%	-5%

Note: Positive percentage value means we are above consensus

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Investment Case

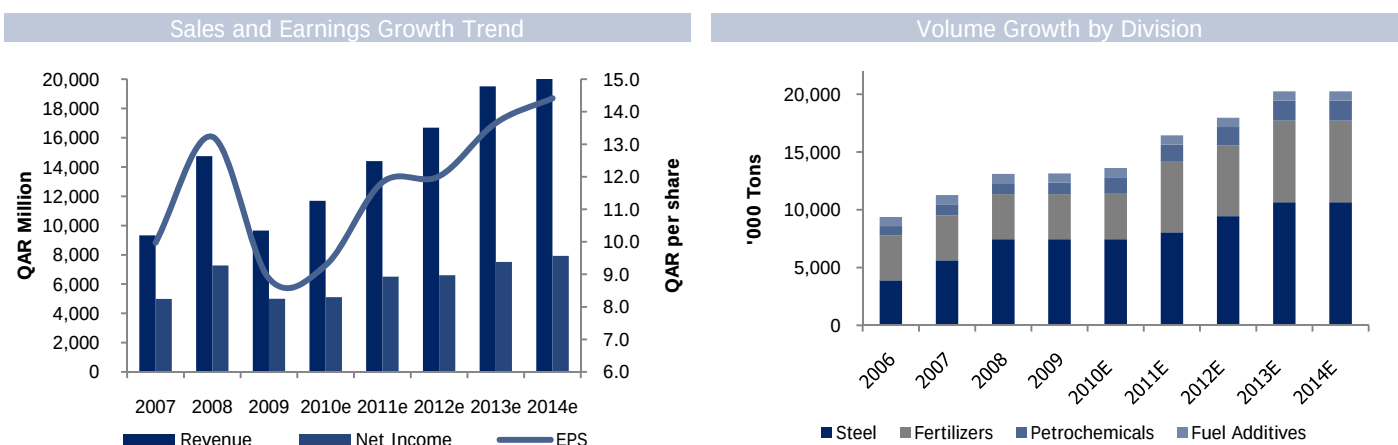
- **IQ sticking to its feedstock-driven strategy results in stable and high margins, high growth rates, a healthy balance sheet, and a c5 % dividend yield**
- **IQ faces minimal demand-side risk as products have either a large cost advantage (petrochemicals and fertilizers) or strong domestic demand (steel); IQ favorably placed in the weak pricing environment**
- **A good opportunity to gain entry and capture the strong growth shown by an undervalued, low-cost producer**

Strong growth going forward

We see strong growth in the sales and EPS of IQ in the next five years driven primarily by healthy capacity additions and an improved outlook across all business segments.

As per our estimates, the company's sales will grow to over QAR20 billion in 2014e from QAR9.6 billion in 2009, showing a CAGR of 16%. At the same time, the EPS will grow to QAR14.42/share by 2014e from QAR8.87/share in 2009, increasing at a CAGR of 11% for next five years. Overall production capacity is increasing to over 20,000 tons from 13,000 tons with petrochemical and fertilizer capacity doubling from 2009 levels.

Chart 1.1: IQ Sales, Earnings, and Volume Growth Going Forward



Source: Company reports, HC Research

Industry Outlook: Recovery ahead but with limited price increase, IQ favorably placed with high volume growth

Fertilizers

The nitrogen fertilizer market's underlying fundamentals are strong and improving. Demand destruction in the urea chain is not sustainable without affecting crop yields. Despite being one of the most defensive and essential commodity, nitrogen fertilizer demand actually fell globally by 1.5% in 2009. Demand destruction was more serious in Europe and North America. We expect urea demand will stabilize and return to its historical annual 3% growth rate. We contend that the urea supply/demand balance is not very loose. Excluding Chinese facilities, we see operating rates touching 90% in 2011e. However, the urea market is much more balanced now, and we do not expect sharp price increases in the coming years. Companies that are expanding capacities will outperform in this space. IQ is continuing to expand its production base with QAFCO 5 in 2011e and QAFCO 6 in 2012e. These expansions would help IQ expand its cost advantage over wider volumes and accelerate its earnings growth.

Petrochemicals

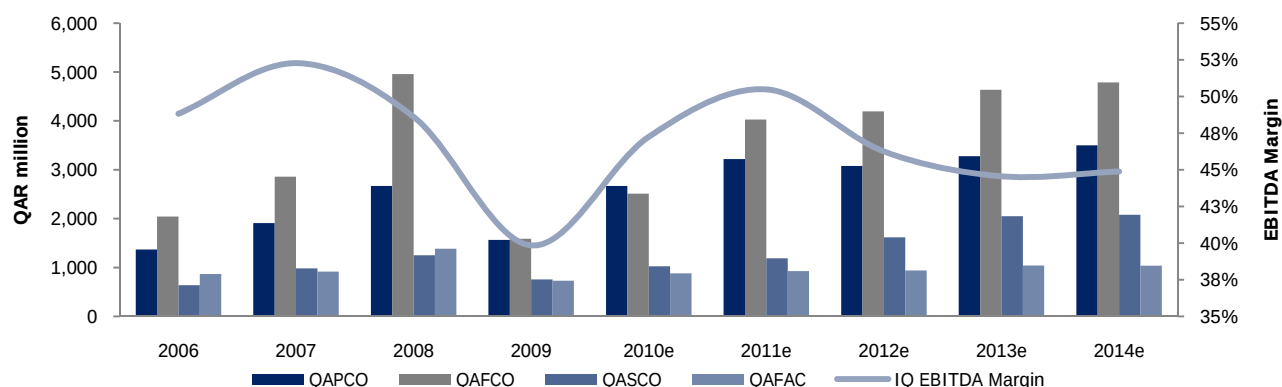
We expect the petrochemical industry to continue its recovery, with strong growth in Asia and Latin America more than offsetting the sluggish growth in the US and Europe. However, with massive capacity additions on the horizon, a trough in global operating rates is inevitable. Globally, the petrochemical industry is heading towards a trough in the later part of this year. Around 9.0 million tons of new ethylene facilities are slated to come online this year along with some delayed plants like Yansab. On the other hand, demand is not expected to be strong enough due to a weak global recovery and a slowdown in Chinese appetite after a sharp increase last year. China's petrochemical demand growth in 2009 was close to 30%, which is expected to slow to c15% this year. Weak recovery and supply pressure would produce a trough in global operating rates in the latter part of 2010e, but an industry trough need not coincide with an earnings trough, particularly for Middle Eastern companies with a low-cost structure. The earnings trough is more important for stock performance and has already taken place in 2009 for Middle Eastern companies.

MENA - Petrochemicals

Middle Eastern producers will continue to generate healthy margins as cost pressures from rising energy prices will not let product prices slump significantly even with supply pressures.

IQ's petrochemical segment is boosted by the startup of the Ras Laffan cracker and the new linear low-density polyethylene (LLDPE) line this year. IQ is almost doubling its petrochemical capacity to over 1,700 thousand tons in the next couple of years from 900 thousand tons in 2009. This will help IQ show a better earnings growth rate than peers without any price support.

Chart 1.2: IQ EBITDA by Division and Overall EBITDA Margin



Source: Company reports, HC Research

Steel

QASCO is showing a healthy growth rate largely due to the massive capital expenditure layout. Steel is the only segment where IQ does not have low-cost raw material access, which results in lower margins compared to its other divisions. However, what QASCO lacks in margins it makes up for in its high growth rate. QASCO has better margins than global steel peers. Despite a lack of access to low-cost materials, QASCO has other advantages such as (i) a 20% import tariff protection over last 25 years, (ii) using an electric arc furnace running on a low-cost power supply, which eliminates the need to import coking coal, and (iii) sourcing methane required to reduce iron ore pellets at a lower cost than Qatar Petroleum. All these advantages help maintain healthy profitability at QASCO. Going forward, the company has large expansion plans, which, along with stabilizing steel prices, would result in a 28% earnings CAGR for the next five years.

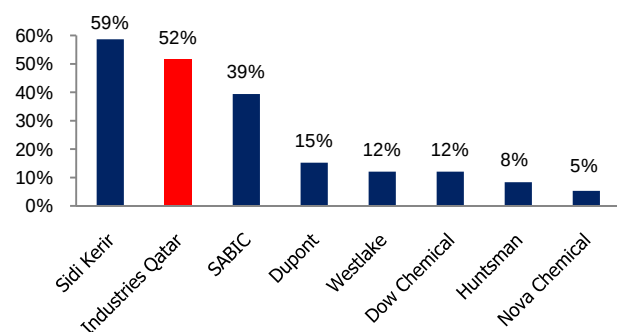
Superior profitability and low-cost advantage

IQ has averaged an EBITDA margin of close to 50% over the last five years, which is exceptional in an industry where mid-teen margins are considered healthy. The main drivers of this superior profitability are undoubtedly the low-cost gas supply agreements and zero taxes.

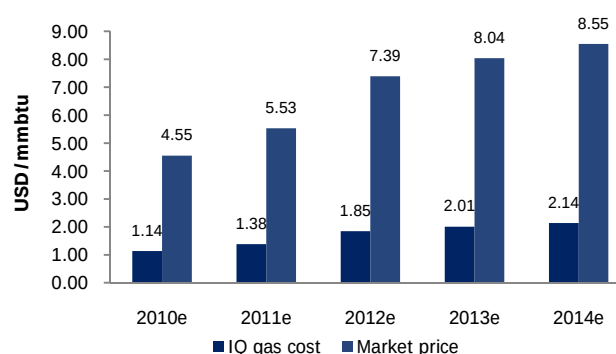
The company does not disclose its feedstock cost, but we believe it is not fixed and that the company sources its feedstock at around 25% of international gas prices. Based on this, the company's gas cost would range between USD1.2/mmbtu and USD2.2/mmbtu for the next five years, which will help keep EBITDA margins over 45%

Chart 1.3: IQ EBITDA Margin Comparison and Natural Gas Price Assumption

Average EBITDA Margins For Past Five Years (2004-2009)



Natural Gas Price Estimation for IQ



Source: Company reports, HC estimates

While QAFCO's feedstock supply agreements are valid until 2019, there is little clarity on the length of supply contracts for other segments. We assume similar feedstock costs and supply validity for all segments as there the government has no incentive or basis to have different agreements with different companies when they all serve the same purpose of diversifying the industrial base and monetizing natural gas. Given that Qatar Petroleum holds 70% of IQ and the fact that the company is in the midst of a heavy capacity expansion, we do not expect there will be any material change in the feedstock supply agreement at this stage.

Aggressive capacity expansion plans but maintains strong financials and yields

One of the main catalysts of the company's impressive top- and bottom-line growth is its large capacity expansion plan. IQ is planning to expand its capacity by c50% in the next four years by investing close to QAR21 billion as shown in the table 1.1. Of the QAR21 billion in planned expenditure on capacity expansion, the company has expended close to QAR10 billion while the rest will be spent in next three years.

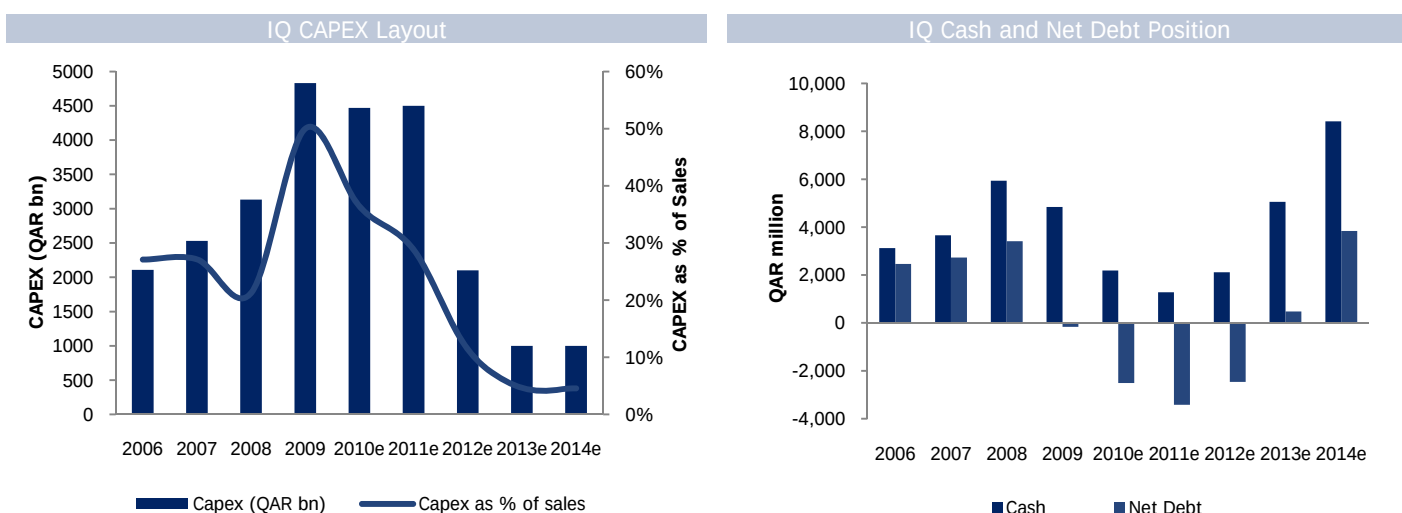
Table 1.1: IQ CAPEX Layout (QAR billion)

Company	Project	Total Cost	IQ Share of Cost	CAPEX Incurred Until 2009	Expected Date of Completion
Qatar Real Estate	Fareej Tower II	0.3	0.1	0.1	1Q10
QAFCO	Urea-1 revamp	0.3	0.3	0.3	1Q10
QAPCO	Qatar Melamine	1.3	0.5	0.5	1Q10
QAPCO	Qatofin/RLOC	5.1	2.6	2.6	1Q10
QAFCO	QAFCO 5	12.8	9.6	5.9	2Q11
QASCO	DRI and Furnace Upgrade	0.6	0.6		3Q11
QASCO	Dubai Steel plant	0.2	0.2	0.1	4Q11
QAPCO	LDPE 3	2.3	1.8		1Q12
QAFCO	QAFCO 6	2.3	1.7		3Q12
QASCO	Phase II expansion	4.0	4.0		3Q12
Total Expenditure		29.2	21.4	9.5	

Source: Company guidance

Despite having such a huge layout for the capital expenditure, the company will still end up with cash and cash equivalents of close to QAR8.3 billion after maintaining a 60% dividend payout ratio. At a 60% payout ratio, the company's cumulative dividend payout in next five years will be close to QAR18 billion. This means IQ will generate over QAR40 billion in cash over the next five years. As chart 1.4 suggests, once QAFCO 5 and 6 start up in 2011e and 2012e, cash generation will speed up and IQ would quickly move into the net cash position.

Chart 1.4: IQ CAPEX Layout Cash Position

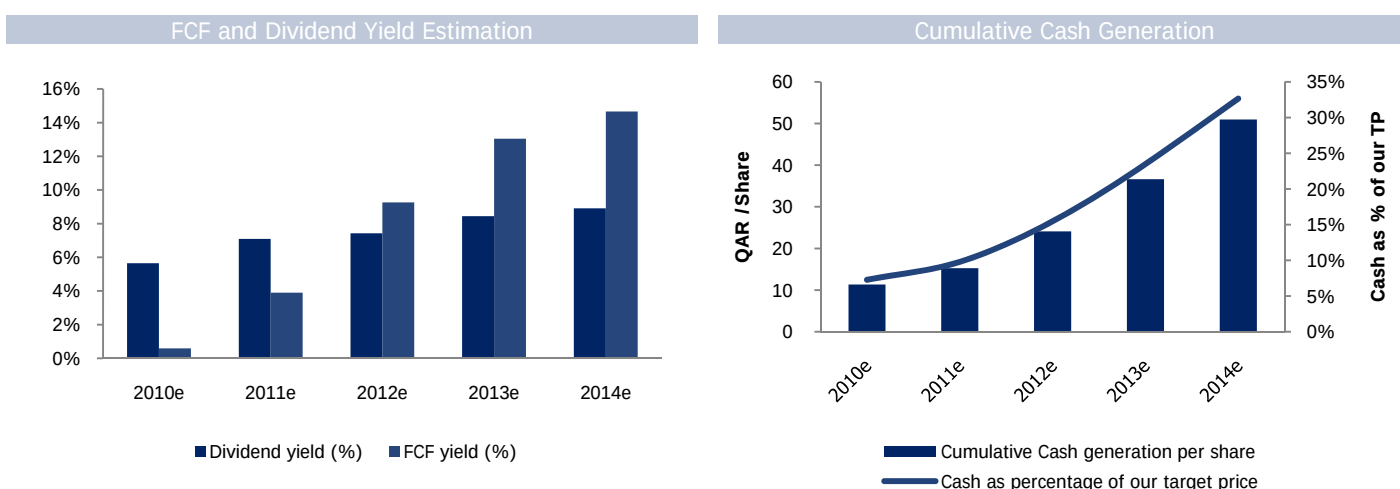


Source: Company reports, HC Research

Healthy dividend and FCF yields add to attractiveness

Despite a large expansion layout, healthy margins would still allow IQ to keep generating FCF in excess of QAR5 billion, yielding a FCF yield of over 6% at our target price. Healthy FCF would also allow the company to maintain its dividend payout ratio of 50%-60%, which would result in a dividend yield of over 5% going forward. IQ's cash generation ability will continue to improve with the expansion of cost-advantaged QAFCO and QAPCO facilities.

Chart 1.5: Yields and Cumulative Cash Generation Estimates



Source: HC Research

Valuation

We view the current stock price as an opportunity to capture the strong growth potential of an undervalued, best-in-its-class chemical company with a global low-cost position. Strong outlook across all business lines will help attain new sustainable peak earnings in all of IQ's business lines. IQ is currently trading at a discount to its peers despite having better risk/return profile. It has strong growth footprints but a dividend yield of over 5%, which makes it a good pick for both growth and value-seeking investors.

Table 1.2 shows our target price calculation using the weighted average approach. Our target price of QAR142/share shows an upside potential of 48%. Under our research model, stocks showing upside of more than 20% are given a Buy rating.

Table 1.2: IQ TP

Valuation Approach	Fair Value	Weight	Weighted Value
Market Based PE Multiple	135.2	50%	67.6
DCF	148.6	50%	74.3
Target Price			141.9
Current Market Price			95.70
Upside Potential			48%
Rating			Buy

Source: HC Research

Valuation

- Trades at discount despite better margins and robust growth outlook; current valuations solely focusing on correction in crude oil prices while ignoring new plant startups that will drive earnings up this year
- Relative SOTP valuation and DCF valuations show significant upside from current levels
- We arrive at a TP of QAR141.9/share (48% upside) using a weighted average of SOTP and DCF

Valuation and target price

Our preferred methodology for valuing the company is the weighted average valuation. In this approach we assign 50% weight to the market-based relative valuation and 50% to the DCF valuation. By giving equal weight to the DCF and market based multiple valuations we incorporate fundamentals and investors' risk tolerance reflected in current market prices.

Table 2.1 shows our target price calculation using the weighted average approach. Our target price of QAR142 shows an upside potential of 48%. Under our research model, stocks with an upside of more than 20% are given a Buy rating. Hence, we initiate coverage on IQ with a Buy recommendation.

Table 2.1: IQ Weighted Average Valuation and TP

Valuation Approach	Fair Value	Weight	Weighted Value
Market Based PE Multiple	135.2	50%	67.6
DCF	148.6	50%	74.3
Target Price			141.9
Current Market Price			95.7
Upside Potential			48%
Rating			Buy

Source: HC Research

Sum-of-the-Parts Valuation

IQ is essentially a holding company operating in four different business lines: petrochemicals, fertilizers, methanol, and steel. To arrive at a market-based valuation of the company we need to find out the market multiple for each of its business lines as each business has its own established peers. We then arrive at the multiple of IQ by using a weighted average of individual business multiples weighed by their contribution to total IQ earnings.

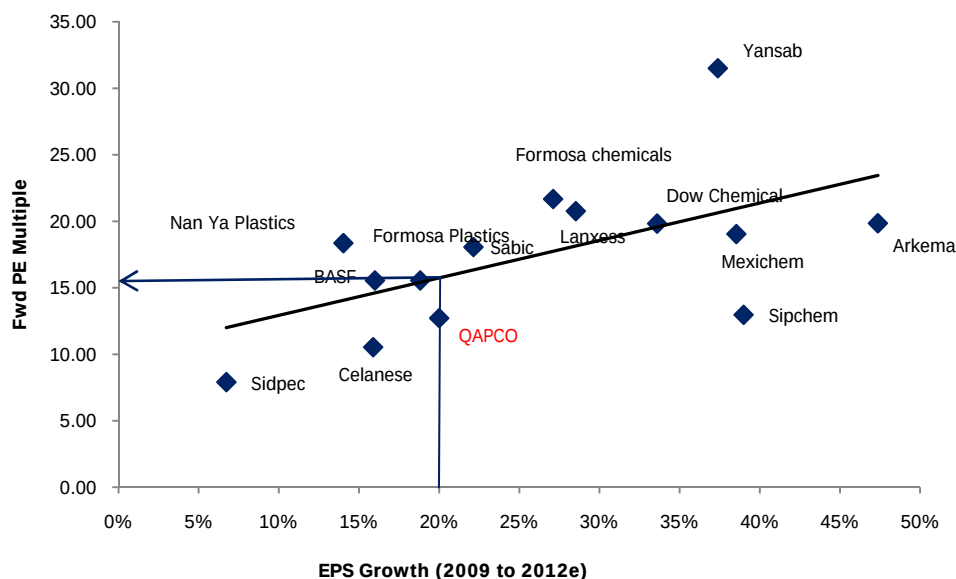
Chart 2.1 shows the peer group scatter plot for QAPCO. Based on our estimates, QAPCO is growing at a rate of 17% and its fair multiple should be 15.0x. For comparison purposes we used the growth rate of the QAPCO division but the PE multiple shown on the chart is for all of IQ. Similarly, chart 2.2 shows a QASCO and QAFAC peer scatter plot of traded PE multiple and earnings growth rate. Based on the earnings growth rate and forward multiples of peers it appears that the fair multiple for QAFAC is 15.5x and QASCO 15.0x. For QAFAC, we have taken the median of Methanex and China Blue Chemical company multiples. Methanex trades at 12.23x and China Blue Chemicals 15.81x, giving us a fair multiple for QAFAC of 14.0x

Table 2.2: IQ SOTP Relative Valuation

Division	% Contribution To Net Income 2010e	Fair Multiple
QAFAC	33%	15.00x
QASCO	17%	14.50x
QAPCO	45%	15.00x
QAFAC	8%	13.50x
Consolidated PE Multiple		14.80x
Consolidated EPS 2010e		9.14
SOTP Based Price (QAR)		135.25

Source: HC Research

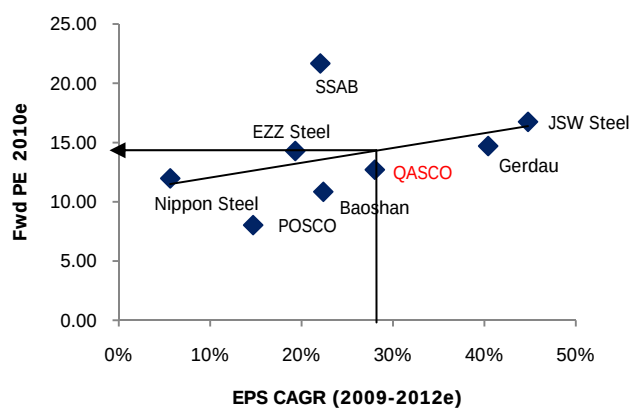
Chart 2.1: Earnings Growth Vs. 2010e Fwd PE Multiple of QAPCO and Peers



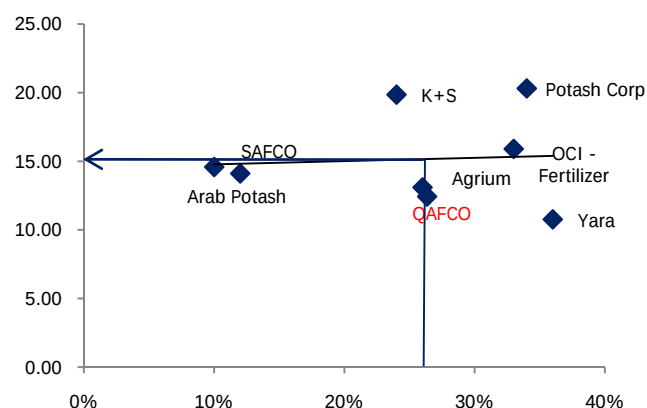
Source: Reuters, HC Research

Chart 2.2: Earnings Growth vs. 2010e Fwd PE Multiple Scatter Plot

Qatar Steel peers



Qatar Fertilizer Peers



Source: Reuters, HC Research

DCF Valuation

We have carried out the DCF-based valuation of IQ based on five years of explicit forecasted periods and five years of trend forecasting. The terminal value of the cash flows is calculated using the Gordon Growth Model. The following assumptions were used in the DCF model. We arrived at a DCF-based share price of QAR149/share.

Table 2.3: DCF Assumptions

Assumptions	
Risk Free Rate	4.5%
Beta	1.0
Market Premium	6.0%
Cost of Equity	10.50%
Marginal Tax Rate	0%
Equity-to-Capital Ratio	0.9
Debt-to-Capital Ratio	0.1
WACC	9.95%

Source: HC Research

Table 2.4: DCF Valuation

Output Summary		Assumptions										
NPV of Cash Flows	83,134	WACC	9.95%									
Net Debt 2010e	(2,514)	Terminal Growth Rate	2.00%									
Other Investments in Associates	1,412	TV/Total NPV	55.60%									
Equity Value 2009e	82,032											
Number of Shares	550											
Price per Share	149											
Current Share Price	97.70											
Upside/(Downside) Potential	52%											
		2010e	2011e	2012e	2013e	2014e	2015e	2016e	2017e	2018e	2019e	Terminal
Free Cash Flow Calculation												
Sales	11,688	14,399	16,692	19,507	20,084	20,486	20,896	21,314	21,740	22,175		
Sales Growth		23.2%	15.9%	16.9%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
EBIT	4,854	6,399	6,525	7,393	7,716	7,870	8,028	8,188	8,352	8,519		
EBIT Margin	42%	44%	39%	38%	38%	38%	38%	38%	38%	38%		
Tax	0	0	0	0	0	0	0	0	0	0		
Tax as % of EBIT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
NOPAT	4,854	6,399	6,525	7,393	7,716	7,870	8,028	8,188	8,352	8,519		
Depreciation	665	873	1,197	1,301	1,301	1,301	1,301	1,301	1,301	1,301		
Gross Cash Flow	5,519	7,272	7,722	8,694	9,017	9,171	9,329	9,489	9,653	9,820		
Increase in Working Capital	(662)	(486)	(607)	(663)	(112)	(78)	(79)	(81)	(82)	(84)		
Change in WC As A % of Inc. Sales		18%	26%	24%	19%	19%	19%	19%	19%	19%		
CAPEX	(4,470)	(4,500)	(2,100)	(1,000)	(1,000)	(410)	(418)	(426)	(435)	(443)		
Free Cash Flow	387	2,286	5,014	7,032	7,906	8,684	8,832	8,982	9,136	9,293	119,293	
Year		1	2	3	4	5	6	7	8	9	10	10
Cost of Capital	9.95%											
PV of Cash Flow		352	1,891	3,773	4,812	4,921	4,917	4,548	4,207	3,892	3,601	46,221
NPV of Cash Flows	83,134											
Number of Shares	550											
Long-Term Growth Rate	2.0%											

Source: HC Research

Sensitivity Analysis

The DCF-based valuation contains several assumptions that change over time and thus impact the target share price. Below are the sensitivity tables for the most important assumptions that are expected to change most.

Table 2.5: DCF Sensitivity Analysis

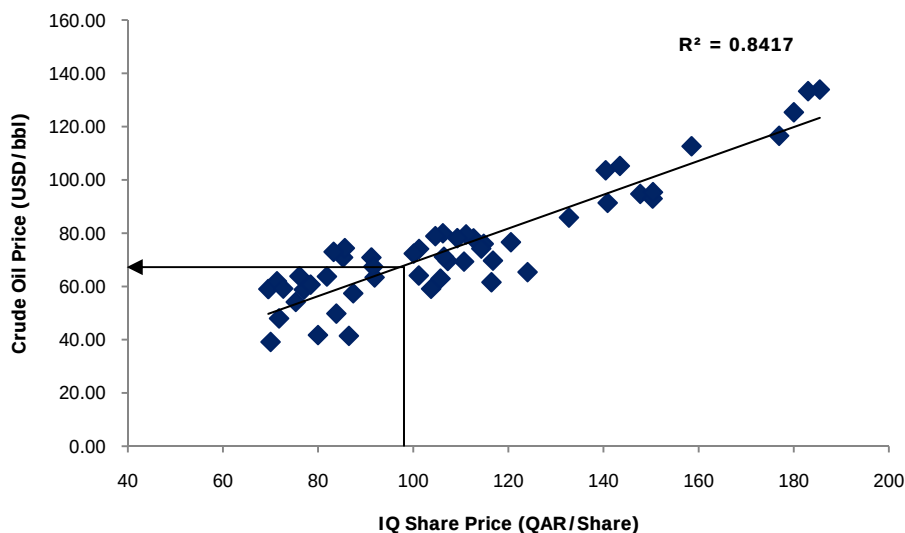
Debt -to-Capital	Cost of Capital						
	8%	9%	10%	11%	12%	13%	14%
0%	170.7	148.1	130.1	115.4	103.3	93.2	84.6
1%	185.8	158.9	138.0	121.4	107.9	96.8	87.4
2%	206.0	172.8	148.0	128.8	113.5	101.0	90.7
3%	234.1	191.3	160.8	137.9	120.3	106.2	94.7

Source: HC Securities

IQ and Crude Oil Price Sensitivity

IQ's stock has a very tight correlation with crude oil prices as shown in chart 2.3. This should not come as a surprise given that fertilizer and petrochemical prices—the biggest contributors to net income—are impacted by crude oil prices. The current share market seems to be banking in view that crude oil prices will stay below USD70/bbl for 2010e. However, the market seems to be ignoring the fact that earnings will be boosted this year due to the startup of a new cracker and LLDPE line. Hence, we believe the market is currently over-discounting the crude oil price weakness in the share price.

Chart 2.3: IQ Share Price Sensitivity to Crude Oil Prices



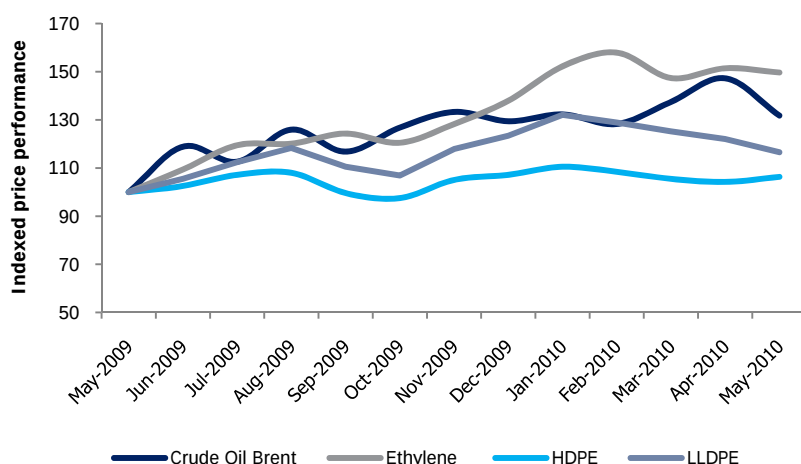
Source: Bloomberg, HC Research

Large correction in petrochemical prices looks unlikely

The petrochemical market has largely ignored the appreciation in crude oil prices this year and has been on a downward trend since February. Hence, the recent correction in oil prices by 20% does not automatically trigger a similar correction in petrochemical prices. Even if there is a correction it might be much less than what market is pricing in.

As shown in chart 2.4, ethylene and PE prices have been on gentle downward trend since the beginning of the year despite crude oil gaining strength in the first four months of this year. Hence, the recent fall in crude oil prices does not warrant a sharp correction in petrochemical prices.

Chart 2.4: Indexed Price Performance of Crude Oil and SIDPEC's Petrochemical Products



Source: CMAI, HC Research

IQ Overview

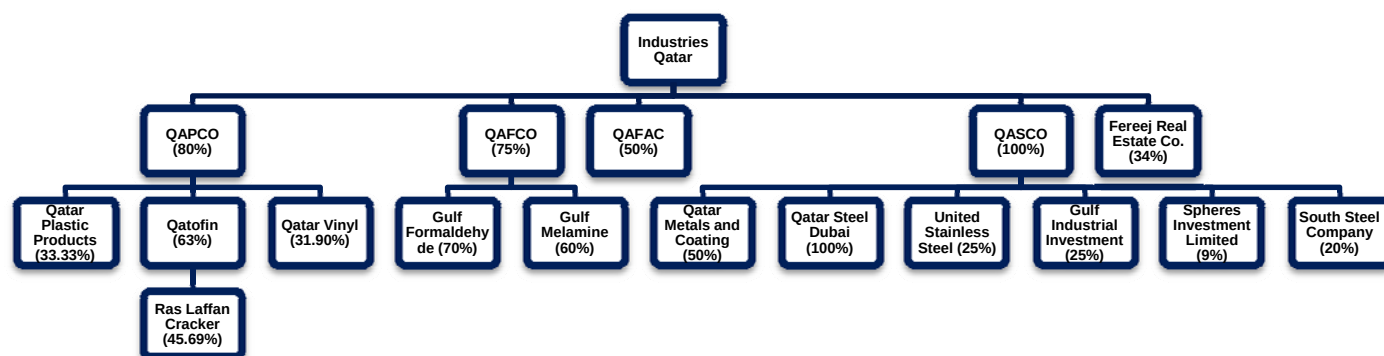
- IQ was established as a holding company for non-oil and gas companies in Qatar
- Main contributors to top and bottom lines are petrochemicals and fertilizers
- Company has large CAPEX layout in excess of QAR20 billion across steel, fertilizers, and petrochemicals

Brief History and Holding Structure

IQ is essentially a holding company representing the Qatari government's stake in its flagship industrial companies in Qatar. IQ represents Qatar's effort to diversify its economy from oil and gas. IQ is one of the largest publicly traded integrated industrial companies in Qatar.

Essentially, IQ represents a majority stake in four flagship industrial companies in different sectors of Qatar. It has stake in Qatar Fertilizers (QAFCO), Qatar Petrochemicals (QAPCO), Qatar Steel (QASCO) and Qatar Fuel Additive Company (QAFAC). Prior to 2003, all these companies were controlled by the government either directly like QASCO or indirectly through Qatar Petroleum (QP). The government reorganized in 2003 its holding structure and transferred its entire stake to QP, and in turn QP transferred its stake in other companies to a new holding company named Industries Qatar. IQ offered a 30% stake in an IPO on the Doha Stock Exchange. After the IPO, QP's stake in IQ reduced to 70%. QP indirectly represents the Qatari government's stake.

Chart 3.1: IQ Group Holding Structure



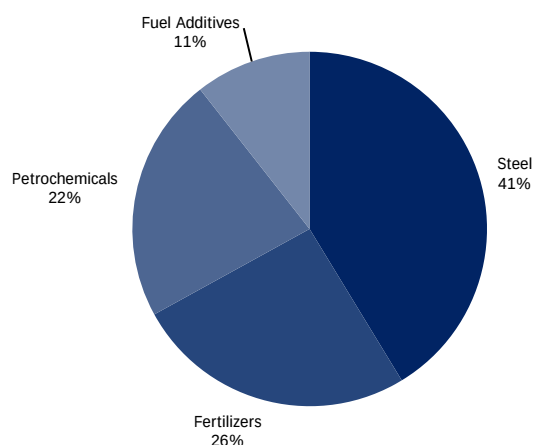
Source: Company reports

It is clear from chart 3.1 that IQ has no oil and gas assets in its business portfolio and it basically represents the non-oil and gas business venture undertaken by Qatar over the years. In one single company it provides investors exposure to Qatar's petrochemical, fertilizer, steel, and fuel additive businesses.

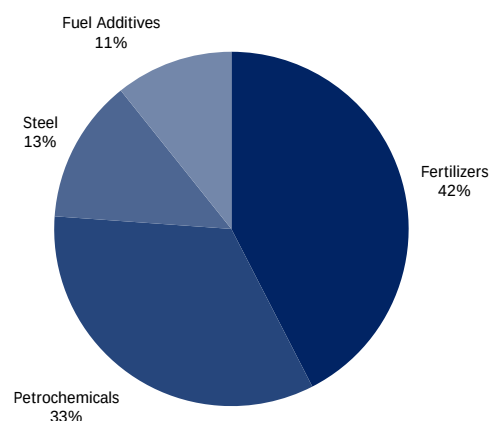
Owing to its abundant natural gas reserves, the feedstock cost advantage is evident across all holding companies except for Qatar Steel. These companies not only provide a diversified industrial production base and help create employment, but also provide an alternate way to monetize the vast amount of natural gas reserves. A lack of access to low-cost raw materials for Qatar Steel is evident from the revenue and earnings exposure (chart 3.2). Despite having the highest contribution to the top line, Qatar Steel is not the prime contributor to the bottom line. Over 75% of total earnings come from petrochemical and fertilizer divisions.

Chart 3.2: IQ Revenue and Earnings Exposure

Revenue Exposure by Segment (2009)



Earnings Exposure by Segment (2009)



Source: Company reports

Although Qatar Steel is not cost advantaged, steel is an important industry for Qatar as it provides an indigenous source of key raw materials for economic growth. Table 3.1 shows the major subsidiaries and joint ventures of all IQ's principal holding companies.

Table 3.1: IQ's Principal Subsidiaries and JVs

Company	JV Partner	Business Description	Stake
Qatar Petrochemical Co. (QAPCO)	TOTAL	Ethylene and LDPE producer	80.0%
Qatar Fertilizer Co. (QAFCO)	Yara, Fertilizer Holdings AS	Ammonia and Urea	75.0%
Qatar Steel Co. (QASCO)	-	Steel	100.0%
Qatar Fuel Additives Co. (QAFAC)	OPIC, International Octane, LCY	MTBE and Methanol	50.0%
QAPCO Subsidiaries			
Qatar Plastic Products Co.	QIMCO, FEBO Spa	Heavy duty plastic bags	33.3%
Qatar Vinyl Company	Norsk Hydro, Arkema	VCM, EDC, and Caustic Soda	31.9%
QATOFIN	Q-Chem (QP and CPChem)	LLDPE	63.6%
Ras Laffan Olefin Co.	Q-Chem, Quatofin, and QP	Ethylene Cracker	29.2%
QAFCO Subsidiaries			
Gulf Formaldehyde Co. (GFC)	QIMCO, UDC	Urea Formaldehyde	70.0%
Qatar Melamine	QIMCO	Melamine	60.0%
Qatar Steel Subsidiaries			
Qatar Steel Dubai FZE	-	Steel	100%
Qatar Metals Coating Company (Q-COAT)	QIMCO	Metallic coatings	50.0%
United Stainless Steel Co.	GIC Kuwait, Al Rashid Group, NIG Kuwait, UGI Bahrain	Stainless Steel	25.0%
Gulf Industrial Investment Co (GIIC)	GIC Kuwait	Financial	25.0%
Spheres Investment Limited	SABIC, Acorn Capital	Financial	9.0%
South Steel Company	Saudi Pan Kingdom Company	Steel	20.0%

Source: Company reports

Capacity Expansion Projects

IQ has earmarked a very aggressive capacity expansion to increase its capacity by around 50% within the next three years by investing around QAR21 billion, of which QAR10 billion has already been spent by the company. Table 3.2 below shows the major capacity expansion projects announced by IQ. The principal areas of expansion are petrochemicals, steel, and fertilizers.

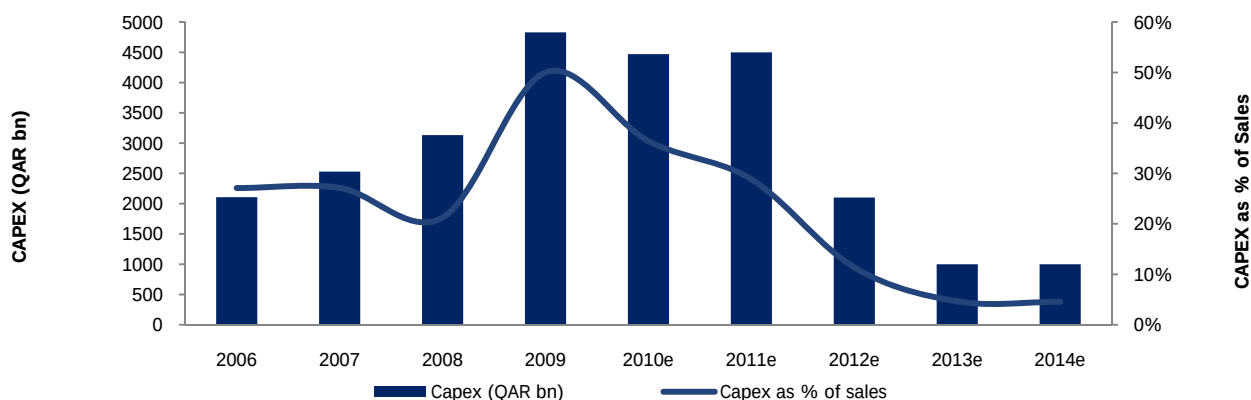
Table 3.2: IQ's Capacity Expansion Plans

Company	Project	Total Cost (QAR bn)	IQ Share of Cost (QAR bn)	CAPEX Incurred Until 2009 (QAR bn)	Start-up
Qatar Real Estate	Fareej Tower II	0.3	0.1	0.1	1Q10
QAFCO	Urea-1 Revamp	0.3	0.3	0.3	1Q10
QAPCO	Qatar Melamine	1.3	0.5	0.5	1Q10
QAPCO	Qatofin/RLOC	5.1	2.6	2.6	1Q10
QAFCO	QAFCO 5	12.8	9.6	5.9	2Q11
QASCO	DRI, Furnace Upgrade	0.6	0.6		3Q11
QASCO	Dubai Steel plant	0.2	0.2	0.1	4Q11
QAPCO	LDPE 3	2.3	1.8		1Q12
QAFCO	QAFCO 6	2.3	1.7		3Q12
QASCO	Phase II Expansion	4.0	4.0		3Q12
Total Expenditure (QAR bn)		29.2	21.4	9.5	

Source: Company reports

Qatar Steel: Qatar Steel's expansion plans range from upgrading its existing furnace to building new facilities in Qatar to buying a stake in other steel producers. The company wants to expand its production base and geographical reach. Qatar Steel seeks to double its billets and bar manufacturing capacity to almost 7 billion tons by 2013e from 3.4 billion tons currently. Phase I of the expansion was commissioned in 2007 but phase II faced delays and is now expected to come online only in 2012e. QASCO's Dubai-based subsidiary should start operation next year. Saudi Arabia-based South Steel Company, in which Qatar Steel has a 20% stake, should also start operating next year. The company has also announced its plan for phase III, but we are not factoring that into our projections due to delays at phase II. Implementing phase III will depend on the success of phase II. As of now, the company has not started any CAPEX on phase II. We prefer to wait and see how the company approaches phase II before factoring phase III into our numbers.

Qatar Fertilizers: The fertilizer division has also come up with two major expansion projects. QAFCO 5 was already more than 50% complete at the end of 2009. QAFCO has already entered into an off-take agreement with Yara International, the world's largest nitrogen fertilizer manufacturer. QAFCO has also entered into a long-term supply contract with Bangladesh Chemical Industries Corporations (BCIL) to supply more than 300,000 tons of urea, which represents around 45% of the Bangladesh market share. With satisfactory progress on QAFCO 5, the company has already announced the QAFCO 6 project. The QAFCO 6 expansion contains only urea expansion and will use the excess ammonia from QAFCO 5. As QAFCO 6 has no ammonia, it requires no additional natural gas from the government and hence faces no hurdles. After the completion of QAFCO 6 QAFCO's total installed capacity will become 3.8 million tons of ammonia and 5.5 million tons of urea.

Chart 3.3: IQ CAPEX Projections

Source: Company reports, HC Research

Qatar Petrochemicals: Two of Qatar Petrochemicals' biggest expansion projects (Ras Laffan ethylene cracker and the LLDPE line) have come online recently after delays of over a year. The Ras Laffan cracker has 1.3 million tons of capacity and is jointly owned by Qatofin (a JV between Atofina and QAPCO) and Q-Chem II (a JV between Chevron Phillips and Qatar Petroleum). QAPCO recently announced the expansion of its low-density polyethylene (LDPE) production base with the third line at its existing facilities in Mesaieed Industrial City. LDPE-3 would have a capacity of 300,000 tons and is targeted to be completed by 2011e. LDPE-3 would use the excess of ethylene from Ras Laffan. The company has also submitted plans to expand the Ras Laffan cracker capacity to 1.6 million tons to make it the world's largest cracker, but this has not yet been approved and depends on additional natural gas allocation by the government.



Qatar Fuel Additives: QAFAC has no capacity expansion plans through to 2014e. The company wrote off in 2009 the costs related to the QAFAC-II project after it could not secure natural gas for the expansion. This put an end to the company's struggle to expand its methanol capacity since 2004. The company received approval in 2004 to put up 2.3 million tons of two methanol plants in the Mesaieed complex, but in 2005 the project was put on hold because of sharply rising project costs. The company revised the project in 2007 and scaled down capacity to only 1.0 million tons, but this too seems to be put on hold now.

IQ's Competitive Advantages

All products in IQ's portfolio of businesses are global commodities, the prices of which are determined by global supply/demand and marginal costs of production. All products except steel have low-cost sourcing of natural gas as feedstock.

Fertilizers (urea and ammonia): IQ is continuously expanding its urea and ammonia facilities through QAFCO 5 and 6, thereby extending its feedstock advantage even further. Rising coal and crude oil costs would imply a higher cost of production for marginal producers. The recent hike in natural gas prices supplied by Russia to Ukraine has further raised the bar for minimum urea prices. QAFCO's estimated cost of production is a mere USD100/ton, which places QAFCO firmly among the lowest cost producers in the world. Rising prices and capacity in QAFCO bode well for margins in the medium term.

Petrochemicals (ethylene and polyethylene): Petrochemical prices have had an impressive run up in 2009, with most prices increasing by more than 60%. Due to the low-cost structure, most increases went to the company's bottom line. Given the production cost of only USD250/ton for ethylene, it is likely that ethylene margins will remain close to USD800/ton even in the current trough year. The recent start up of the Ras Laffan ethylene cracker also bodes well for the company. By the time LDPE-3 starts up, the company will be selling ethylene in the open market. Like fertilizers, this segment also has a superior cost advantage and will benefit from capacity expansion.

Steel: This is the only segment where IQ does not have any raw material cost advantage. The company sources all of its iron ore through imports. The segment mainly serves the domestic and nearby GCC markets. The main production capacity is in long products, for which there is a ready local market. The company is increasing its capacity in this segment as well. Import tariffs of 20%, a low-cost power supply, and a subsidized methane supply to be used instead of coking coal all compensate for raw material costs to some extent, enabling QAFCO to have much better margins compared to regional producers and non-integrated global steel manufacturers.

Fuels (Methanol and MTBE): QAFAC produces methanol and then uses some to produce MTBE. In this division, the company has a mixed cost advantage. For methanol production, the company sources natural gas at a fixed low price, which gives it a superior cost advantage. However, for MTBE, the company needs to pay international prices for butane. The higher cost of butane reduces the margin and profitability of this division compared to fertilizers and petrochemicals. Methanol's cost of production is estimated to be around USD113/ton compared to the current price of around USD350/ton, giving the company a strong cost advantage. However, the presence of MTBE lowers the company's overall margin. We expect the EBITDA margin of QAFAC will remain close to 40% in the medium term, which is lower than fertilizers and petrochemicals.

Fertilizers and QAFCO

- Improved fertilizer outlook driven by robust grain demand and rebound in urea demand after falling last year
- Low-cost gas sourcing at around USD1.2 to USD2.0 per mmbtu results in high margins of over 66 %
- QAFCO's EBITDA to grow at CAGR of 26 % for next five years, benefitting from new QAFCO 5 and 6 facilities

For our nitrogen fertilizer outlook, supply/demand balance, production economics, and pricing outlook please refer to our initiation report on MENA nitrogen fertilizers High Growth Without Price Support published on 8 June 2010.

Outlook: Maintaining margins while accelerating growth rate

QAFCO is sticking to its feedstock-driven strategy and expanding in the cost-advantaged urea and ammonia facilities only. This will help it maintain its high margins while accelerating the growth rate supported by both sale volumes and prices. The nitrogen fertilizer market's underlying fundamentals are strong and improving. Demand destruction in the urea chain is not sustainable without affecting crop yields. Despite being one of the most defensive and essential commodity, nitrogen fertilizer demand actually fell globally by 1.5% in 2009e. Demand destruction was more serious in Europe and North America. We expect urea demand to stabilize to return to its historical annual 3% growth rate. We contend that the urea supply/demand balance is not loose. Excluding Chinese facilities, we see operating rates touching 90% in the next year. With balanced market conditions we do not foresee sharp price rises, and we factor in conservative price assumptions for next five years. Under a low price growth environment, IQ is expected to perform better than its peers given its cost-advantaged capacity expansion, which faces little volume risk and hence provides earnings growth under any price assumptions.

Brief Introduction to QAFCO

QAFCO was established in 1969 as a joint venture between the Qatari government, Norsk Hydro, US Davy Power, and Hambros Bank in the UK. QAFCO was the first step taken by Qatar to monetize its natural gas reserves to ammonia and urea. The company brought online its first plant at Masaieed in 1973. Since then, three more plants have come up at the same site, with the latest one coming online in 2004. With more than 5.0 million tons of installed capacity, Masaieed is already the world's largest single site fertilizer production facility.

IQ currently has a 75% stake in QAFCO with the other 25% held by Yara International of Norway, 15% directly and 10% indirectly through Fertilizer ASA of Norway. Current installed capacity of QAFCO is over 5.0 million tons. The company has two expansion plans currently going on, namely QAFCO 5 and QAFCO 6 at its Masaieed facilities in Qatar. Factoring in all expansion projects, the company's total installed capacity is by around 9.5 million tons.

Table 4.1: QAFCO Installed Capacity (000 tons)

Product	2004	2005	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Ammonia	1,667	2,000	2,200	2,200	2,200	2,200	2,200	3,800	3,800	3,800	3,800
Urea	2,249	2,800	3,000	3,000	3,000	3,000	3,000	4,300	4,300	5,586	5,586
Melamine	-	-	-	-	-	-	36	36	36	36	36

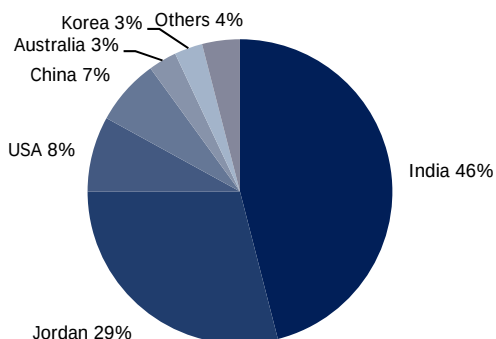
Source: Company reports

QAFCO revenue exposure is well diversified

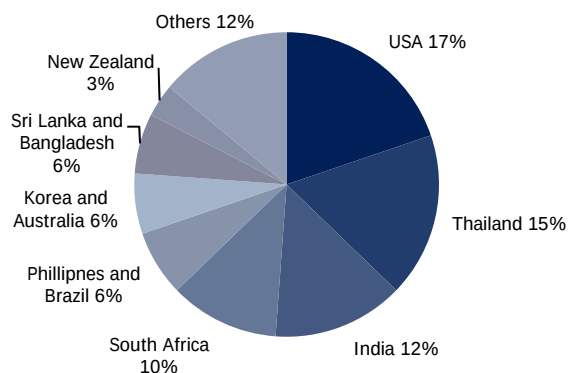
QAFCO is well diversified in terms of revenue exposure and is not overly dependent on any one country for its sales. Owing to its location, Southeast Asia is its natural market with more than one third of sales coming from this region. In terms of countries, it is well diversified.

Chart 4.1: QAFCO Product Revenue Exposure

Ammonia Exposure (2009)



Urea Exposure (2009)



Source: Company reports

Estimating QAFCO Feedstock Costs

QAFCO receives its natural gas at a low cost under a long-term agreement with QP. QAFCO and QP signed an agreement on 18 June 1994 under which QP would supply QAFCO with natural gas at a lower cost for 25 years (until 2018). The exact cost of gas is not disclosed, but we have estimated it by looking at their installed capacity and estimating the amount of natural gas required for production and the spending on raw material. We presented our calculations in the table 4.2. It is clear from the table that they are not paying a fixed cost for their natural gas like Saudi peers.

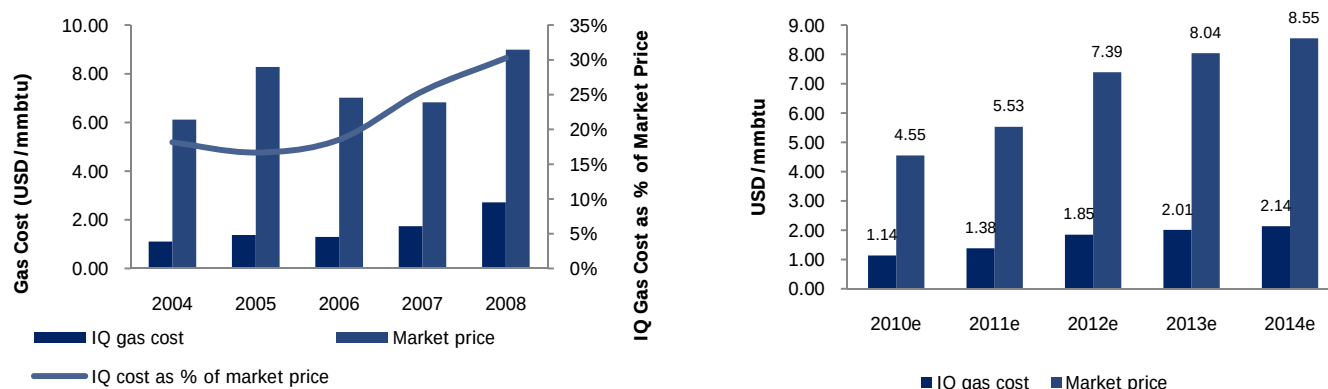
Table 4.2: QAFCO Feedstock Cost Estimation

	Units	2004	2005	2006	2007	2008
Raw material costs	QAR mn	246.9	376.2	370.8	488.65	756.7
Ammonia Production	tons	1,737,622	2,133,800	2,240,000	2,200,000	2,182,552
Natural Gas Requirement per Ton of Ammonia	mmbtu	35	35	35	35	35
Estimated QAFCO Natural Gas Requirement	million mmbtu	60.8	74.7	78.4	77	76.39
Estimated Cost of Natural Gas To QAFCO	QAR/mmbtu	4.06	5.04	4.73	6.35	9.91
Estimated Cost of Natural Gas To QAFCO	USD / mmbtu	1.11	1.38	1.3	1.74	2.72
Market Price of Natural Gas	USD/mmbtu	6.12	8.28	7.02	6.83	8.99
Natural Gas Cost As % of Market Price		18 %	17 %	19 %	25 %	30 %

Source: Company reports, HC Research

Looking at the historical gas price paid by QAFCO, it appears that instead of having a fixed cost for their natural gas, the feedstock cost moves in tandem with international natural gas prices as shown in chart 4.2. QAFCO's costs as a percentage of international natural gas prices remained close to 20% historically but moved up in 2007 and 2008 as natural gas prices shot up.

Chart 4.2: QAFCO Natural Gas Price Estimation



Source: Company reports, HC Research

Going forward, we assume QAFCO will pay around 25% of the international gas price as its natural gas cost to QP. We keep the percentage higher than the historical level of 20% as we believe increasing LNG capacity and reduced natural gas supply for the downstream industry would keep this ratio on the higher side. However, softening international natural gas prices mean that the actual cost of feedstock would fall in 2010e to USD1.15/mmbtu.

Estimating QAFCO Production Costs

Based on the gas price assumption we derived above, QAFCO's production costs and margin estimation are shown in table 4.3. It is clear from the table that QAFCO has a huge cost advantage over its global peers, with actual delivered cost of urea remaining around USD100–USD120/ton, giving it an EBITDA margin of close to 65%.

Table 4.3: Estimation of QAFCO Production Costs

	Units	2010e	2011e	2012e	2013e	2014e
Ammonia Delivered Cost						
Gas cost (USD/mmbtu)		1.14	1.38	1.85	2.01	2.14
Gas Consumption per Ton of Ammonia	mmbtu/ton	35	35	35	35	35
Cost of Feedstock	USD/ton	40	48	65	70	75
Other Cash Costs	USD/ton	24	24	24	24	24
Ex-Works Cost	USD/ton	64	72	89	94	99
Freight	USD/ton	30	32	33	35	36
Total Delivered Costs of Ammonia	USD / ton	94	104	122	129	135
Ammonia Price Estimates	USD/ton	323	340	360	370	380
Margin on Ammonia	USD/ton	71 %	69 %	66 %	65 %	64 %
Urea Delivered Cost						
Ammonia Cost	USD/ton	64	72	89	94	99
Ammonia Consumption per Ton of Urea	Tons	0.6	0.6	0.6	0.6	0.6
Ammonia Costs	USD/ton	38	43	53	57	59
Energy Costs	USD/ton	12	12	12	12	12
Conversion Costs	USD/ton	15	15	15	15	15
Freight	USD/ton	30	32	33	35	36
Total Delivered Costs of Urea	USD / ton	95	102	113	118	123
Urea Price Estimates	USD/ton	303	320	340	350	360
Margin on Urea	USD / ton	68 %	68 %	67 %	66 %	66 %

Source: HC Research

QAFCO Earnings Model

Table 4.4 shows our earnings model for QAFCO based on installed capacity, our pricing assumptions, costs, and margin assumptions. We assume both QAFCO 5 and QAFCO 6 will come online on schedule. After these capacity expansions the installed company's capacity will almost double to 9.5 million tons from 5.5 million tons.

After the fall in operating rates in 2009, we forecast utilization rates will return to their usual 95% going forward. Historically, QAFCO has operated its plants at close to its peak capacity, and with the return of strong demand that too is a possibility.

We avoid a peak capacity utilization rate scenario in light of a much more balanced supply/demand scenario as of now. After the startup of QAFCO 6 the company will have much less excess ammonia and much higher integrated operations. On the back of strong volume growth and price increases, both sales and earnings will record strong growth. As per our estimates, sales and earnings will triple in next five years. QAFCO will retain its position as the dominant contributor of IQ's earnings. For our sales calculation, we used netback prices instead of actual quoted prices.

Table 4.4: QAFCO Earnings Model

	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
QAFCO Capacity (000 tons)									
Ammonia	2,200	2,200	2,200	2,200	2,200	3,800	3,800	3,800	3,800
Urea	3,000	3,000	3,000	3,000	3,000	4,300	4,300	5,586	5,586
Melamine	-	-	-	-	36	36	36	36	36
QAFCO Production Volumes (000 tons)									
Ammonia	2,000	2,200	2,180	1,980	2,074	3,610	3,610	3,610	3,610
Urea	2,987	2,950	2,990	2,700	2,828	4,085	4,085	5,307	5,307
Melamine	-	-	-	-	30	34	34	34	34
Operating Rates									
Ammonia	90%	100%	99%	93%	94%	95%	95%	95%	95%
Urea	100%	98%	100%	93%	94%	95%	95%	95%	95%
Melamine	-	-	-	-	84%	100%	100%	100%	100%
QAFCO Sales Volumes (000 tons)									
Ammonia	552	493	451	414	434	1,241	1,241	532	532
Urea	2,987	2,815	3,090	2,700	2,828	4,085	4,085	5,307	5,307
Melamine	-	-	-	-	33	34	34	34	34
Netback Product Pricing (USD / ton)									
Ammonia	261	272	500	205	322	315	335	345	355
Urea	261	308	471	222	273	285	305	315	325
Melamine	-	-	-	1,873	1,290	1,355	1,395	1,423	1,452
Sales (QAR mn)									
Ammonia	524	489	821	308	509	1,423	1,513	668	688
Urea	2,838	3,156	5,298	2,177	2,813	4,238	4,535	6,085	6,278
Melamine	-	-	-	-	156	169	174	177	181
Total QAFCO Sales	3,362	3,644	6,118	2,485	3,478	5,829	6,222	6,930	7,146
Product EBITDA Margins (USD / ton)									
Ammonia	146	205	408	134	270	236	239	244	249
Urea	161	243	381	141	201	197	208	214	222
Melamine	-	-	-	-	187	215	198	196	195
EBITDA (QAR mn)									
Ammonia	293	368	670	202	426	1,064	1,081	472	483
Urea	1,751	2,490	4,286	1,386	2,065	2,935	3,087	4,137	4,279
Melamine	-	-	-	-	21	28	26	26	26
Total QAFCO EBITDA	2,044	2,858	4,956	1,588	2,514	4,026	4,192	4,634	4,786

Source: Company reports, HC Research

Petrochemicals and QAPCO

- **Global petrochemical industry is heading towards trough in the latter part of 2010e due to massive supply, prices to remain under pressure**
- **Earnings trough of ME chemicals is behind us, and IQ will continue to show earnings growth led by startup of new facilities**
- **QAPCO's EBITDA to show CAGR of 20% for the next five years and maintain high margins of over 60%**

Outlook

The petrochemical segment is boosted by the startup of the Ras Laffan cracker and the new LLDPE line, but the global petrochemical industry is heading towards a trough in the later part of this year. Overall, we expect the chemical industry to continue its recovery with strong growth in Asia and Latin America more than offsetting the sluggish growth in the US and Europe. With massive capacity additions on the horizon, a trough in global operating rates is inevitable. Around 9.0 million tons of new ethylene facilities are slated to come online this year along with some delayed plants like Yansab. On the other hand, demand is not expected to be strong enough due to a weak global recovery and a slowdown in Chinese appetite after a sharp increase last year. China's petrochemical demand growth in 2009 was close to 30%, which is expected to slow down to 12%–15% this year. Both these factors would combine to produce a trough in global operating rates in the latter part of 2010e. However, an industry trough does not need to coincide with an earnings trough, especially for Middle Eastern companies who have a fixed-cost structure and different dynamics than global peers. Middle Eastern producers will continue to generate healthy margins as the cost pressure from rising energy prices will not let product prices slump significantly even if there is supply pressure.

Brief Introduction to QAPCO

QAPCO was established in 1974 to use the ethane available from the petroleum industry to produce basic chemicals in an attempt to increase Qatar's industrialization. QAPCO is 80%-owned by IQ and the rest is owned by Total through its subsidiary Atofina. QAPCO produces ethylene and polyethylene. It produces primarily LDPE and has recently commissioned a new line for LLDPE.

The company operates an ethylene cracker in Masaieed Industrial city with a capacity of 720,000 tons. It also has a 45% share in the 1.3 million ton Ras Laffan Olefin Cracker, which gives it another 585,000 tons of ethylene. It also has a 63% share in a new LLDPE line with a nameplate capacity of 450,000 tons. The new cracker and the LLDPE line have come online. The only expansion project that the company currently has is the third LDPE line with an announced capacity of 300,000 tons. IQ's share of capital expenditure for expansions in QAPCO stands at around QAR1.8 billion

Table 5.1: QAPCO Installed Capacity (000 tons)

QAPCO Capacity (000 tons)	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Ethylene	525	720	720	720	1,037	1,100	1,100	1,100	1,100
LDPE	400	400	400	400	400	400	550	700	700
LLDPE				48	285	285	285	285	285
Sulfur	70	70	70	70	70	70	70	70	70

Source: Company reports

Ethylene and Polyethylene Basics

Ethylene is the most important petrochemical and accounts for around 40% of the global petrochemical trade by volume. Polyethylene is the largest end market for ethylene and hence influences the ethylene cycle. Ethylene is the simplest and most important petrochemical. It is consumed in the largest quantity and forms of it make up 40% of the global petrochemical and polymer industry. Ethylene in itself has no use, but is used in the production of a wide array industrial chemicals and plastics.

Ethylene is a flammable and colorless gas and hence needs to be stored at high pressure and low temperatures. Its physical properties make it difficult and expensive to store and transport, meaning it is limitedly traded. Most ethylene produced is integrated to downstream units for further processing into final products. The ethylene cycle is often viewed as a good proxy for the complete global commodity cycle.

Feedstock Costs: Middle East Redefining Cost Curve

Commodity chemicals are sold in bulk with little differentiation among suppliers. There are limited options available for suppliers to gain a competitive advantage. Some of the options include gaining market share, economies of scale, cost reductions, and a logistics advantage. Cost reduction through feedstock has gained increasing importance in the past decade with the emergence of Middle Eastern facilities.

Saudi Arabia first entered the ethylene market in the late 1980s with joint venture initiatives with Shell, Exxon, and Mobil. However, Middle Eastern capacity shot up feedstock prices in other parts of the world at the turn of the century. High oil prices, a sharp increase in US natural gas costs, the emergence of China as a huge demand driver, and the desire to monetize its stranded gas reserves all gave the Middle East a stable and strong reason to invest in petrochemical facilities.

Ethane-based crackers in the region have fixed long-term supply agreements for ethane with their national oil companies at USD0.75/mmbtu to USD1.25/mmbtu in equivalent natural gas costs. This translates to a huge cost advantage over its peers in other regions when oil prices trade at around USD70/barrel and natural gas at around USD5.0/mmbtu.

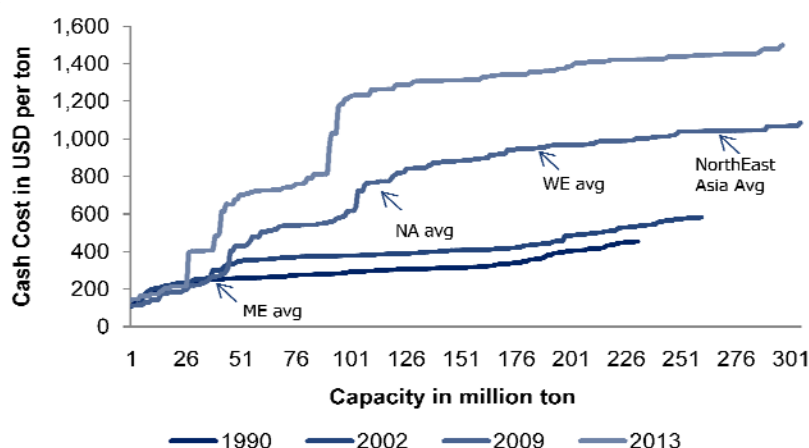
Table 5.2: Cost of Ethylene by Region

Region	Price (USD)	Ethylene Cash Cost (USD/ton)	ME Cost Adv. (USD/ton)	Ethylene Margin (USD1000 /ton of Ethylene)
Middle East: KSA	0.75/mmbtu	110	-	89%
Middle East: Other	1.25/mmbtu	175	-	83%
SIDPEC	3.00/mmbtu	350	208	65%
SE Asia Ethane	4.00/mmbtu	390	248	61%
Western Canada Ethane	4.50/mmbtu	410	268	59%
US Ethane	5.00/mmbtu	500	358	50%
Europe Gas	6.00/mmbtu	600	458	40%
US Naphtha	600/ton	910	768	9%
SE Asia Naphtha	590/ton	940	798	6%
NE Asia Naphtha	600/ton	950	808	5%
Europe Naphtha	610/ton	970	828	3%

Source: HC Research

We have created our own ethylene cost curve to show the cost advantage of the different regions. The gaining importance of a cost advantage is evident from the steepening cost curve over the years. The cost curve was almost flat in 1990, which implies that almost all facilities in the world had similar costs. Over time, energy prices across globe increased, but feedstock prices in the Middle East remained more or less the same, giving it a strong cost advantage. The cost curve is expected to steepen by 2013 thereby increasing the cost advantage of Middle Eastern facilities.

Chart 5.1: Ethylene Cost Curve



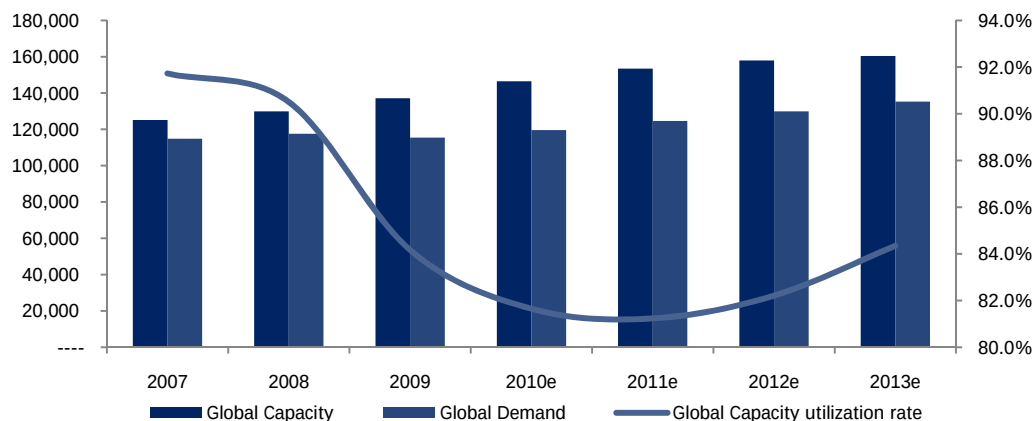
Source: HC Research

Global Ethylene Supply/Demand Outlook

General Base Case Outlook

There is a fair degree of concern among investors because of the massive announced capacity additions slated to come online that result in a massive drop in operating rates. Chart 5.2 shows operating rates and the supply/demand outlook when all announced capacity comes online on schedule.

According to consensus, the chemical industry is heading for a cliff and operating rates will see a massive drop of over 500bp to 80% operating rates. The main reason for such a bearish outlook is that consensus is taking into account demand destruction, which is happening owing to difficult economic conditions. However, consensus is failing to take into account plant shutdowns, new capacity cancellations, and delays due to trying conditions. We feel net capacity additions need to be adjusted to get a better and more accurate view of the outlook.

Chart 5.2: Global Ethylene Outlook—General Base Case

Source: HC Research

Net Adjustments in Capacity Additions

Although the announced capacity additions are massive, they need to be adjusted to incorporate the difficulties faced by producers to bring capacity online. Besides new capacity adjustments, some old capacity also needs to be taken out of the picture because of permanent shutdowns. The downturn causes some capacity rationalizations due to cost ineffectiveness. When we make adjustments for these two factors, it appears that around 4 million tons of ethylene capacity needs to be taken out of the coming supply. Table 5.3 below shows our adjustments in the capacity supply.

Table 5.3: Net Capacity Needed to Take Out of Supply Forecasts

Adjustments	2010e	2011e	2012e	2013e
5% Shutdowns in WE, CIS, and Central Europe	1,555	1,561	1,565	1,565
Iran Existing Plants Running at 50%	1,304	1,304	1,304	1,304
Iran 20% Capacity Cancellations	1,074	1,215	1,365	1,365
Total Capacity Going Out of System	3,933	4,080	4,234	4,234
HC Estimated Global Ethylene Capacity	142,550	149,338	153,724	156,199

Source: HC Research

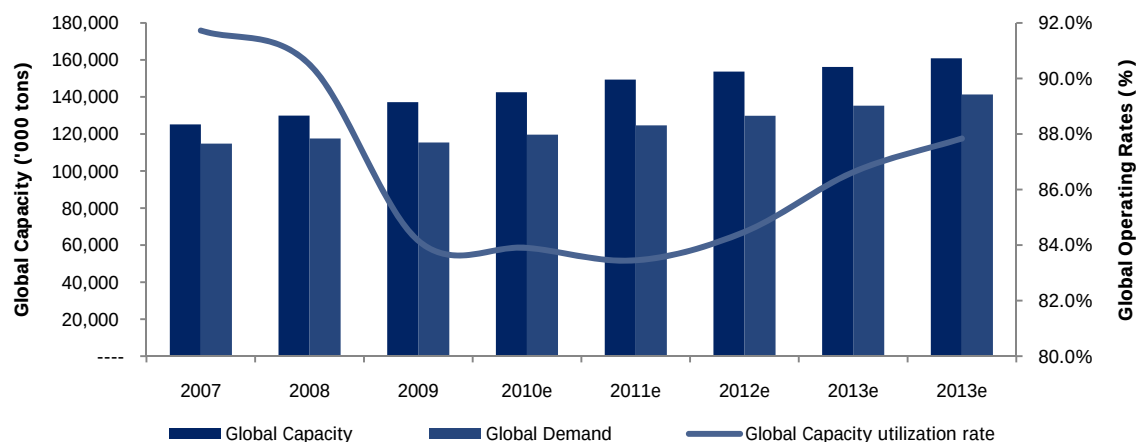
Capacity rationalizations to the tune of 1.0 to 1.6 million tons are a fair assumption considering the severity of the crisis. This is a usual and expected trend. In the previous crisis and trough of 2002–2003, around 1.4 million tons of capacity was shut down. We believe that as the trough approaches and feedstock prices remain high, we will see increased capacity rationalization. We expect most shutdowns in Europe and CIS states as they face the highest cost pressure and demand reduction.

We assume Iran's existing facilities will continue to face a feedstock supply disruption resulting in around 1.3 million tons of production loss. This is not surprising as existing plants faced multiple problems such as feedstock shortage, mechanical difficulties, utility issues, and faulty design. We are shaving off a further 20% of the announced capacity additions in the country owing to building geopolitical tensions and the increasing severity of sanctions. This may force some private companies to stop taking the excessive risk. There is an indication that Iran is thinking of increasing the gas price for petrochemical companies. An Iranian industry official said in March 2010 that prices may increase by the end of this year. This may also lead to some cancellations.

HC Global supply Demand Outlook

Our base case scenario takes into account the capacity adjustments and is shown in chart 5.3. It is clear from the base case that operating rates are around 200bp–300bp higher than the general consensus view. Operating rates are expected to hit bottom in the later part of 2010e, and some weakness will persist well into 2011e. We believe that after this a much faster rebound is imminent despite the general view that rates will remain lower for longer.

Chart 5.3: HC Global Ethylene Outlook

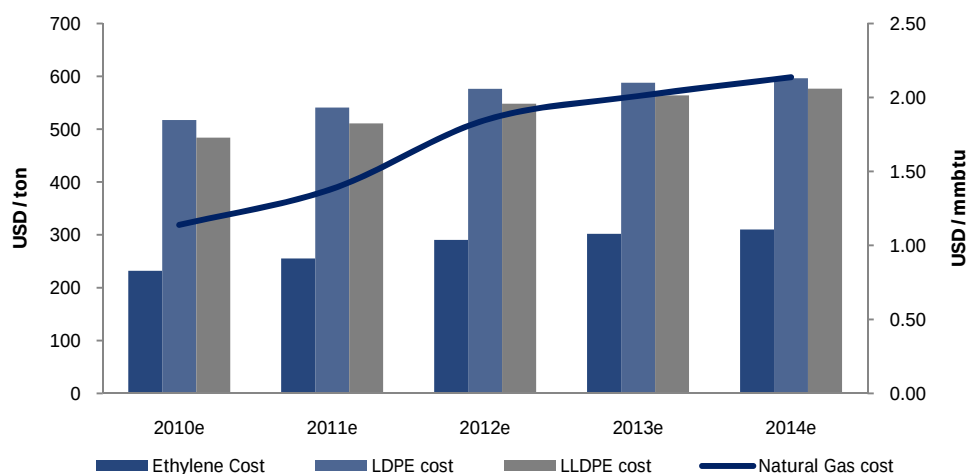


Source: HC Research

QAPCO Cost Structure

To build our cost structure for QAPCO we utilized the same gas price allocation we derived for QAFCO. Chart 5.4 shows our gas cost estimation as well as a product cost estimation for ethylene, LDPE, and LLDPE. It is clear that QAPCO will have a large cost advantage resulting in high margins. Ethylene costs are expected remain below USD300/ton going forward against current prices of USD1,200/ton, which results in a cash profit of around USD900/ton. Other products are also highly profitable.

Chart 5.4: QAPCO Feedstock and Product Manufacturing Costs



Source: HC Research

QAPCO Earnings Model

Table 5.4 details our earnings model for QAPCO based on our capacity estimation, product price estimation, and the cost estimation derived above. We forecast a healthy mid-90s operating rate for petrochemical plants. Asia is expected to be the demand growth engine of petrochemical demand, and IQ is favorably located to serve this demand. QAPCO's operating rates remained over 90% even in the crisis, highlighting the strength of the cost advantage they have as well as the off-take agreements they have in place for their products.

The company has surplus capacity in ethylene after the startup of the Ras Laffan cracker. The company has some 150,000 tons of excess ethylene, which it will export to the Southeast Asian market. As of now, the Ras Laffan cracker is operating at 60% of its capacity, but is expected to ramp up its production in the second half of the year. After LDPE 3 comes online in 2012e most ethylene will be consumed internally. We expect a major boost in QAPCO's earnings in 2010e due to the startup of the Ras Laffan cracker and the LLDPE line. We estimate QAPCO's EBITDA will grow by c50% in 2010e because of contributions from new plants. Over the next five years QAPCO's EBITDA will show a CAGR of 17%.

Table 5.4: QAPCO Earnings Model

	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
QAPCO Capacity (000 tons)									
Ethylene	525	720	720	720	1,037	1,100	1,100	1,100	1,100
LDPE	400	400	400	400	400	400	550	700	700
LLDPE				48	285	285	285	285	285
QAPCO Production Volume (000 tons)									
Ethylene	546	547	662	664	836	1,045	1,045	1,045	1,045
LDPE	412	350	384	370	373	380	523	665	665
LLDPE	0	0	0	33	257	271	271	271	271
Operating Rates									
Ethylene	104%	76%	92%	92%	79%	95%	95%	95%	95%
LDPE	103%	88%	96%	93%	93%	95%	95%	95%	95%
LLDPE				90%	90%	95%	95%	95%	95%
QAPCO Sales Volume (000 tons)									
Ethylene	134	197	278	261	206	394	252	109	109
LDPE	412	350	384	370	373	380	523	665	665
LLDPE	0	0	0	33	257	271	271	271	271
Product Prices									
Ethylene	1,000	1,100	1,189	846	1,110	1,020	1,100	1,150	1,250
LDPE	1,120	1,440	1,638	1,181	1,393	1,350	1,400	1,450	1,500
LLDPE				1,144	1,291	1,250	1,300	1,400	1,500
Sales (QAR mn)									
Ethylene	488	790	1,205	789	770	1,464	1,008	457	497
LDPE	1,680	1,835	2,290	1,593	1,889	1,867	2,663	3,510	3,631
LLDPE	0	0	0	153	1,205	1,232	1,281	1,380	1,478
Total QAPCO Sales*	2,179	2,680	3,710	2,621	3,996	4,776	5,155	5,562	5,830
Product EBITDA Margins (USD/ton)									
Ethylene	811	916	993	610	878	765	810	848	940
LDPE	646	971	1,156	660	876	809	824	862	904
LLDPE				623	802	721	733	816	901
EBITDA (QAR mn)									
Ethylene	396	658	1,006	566	602	1,097	742	337	374
LDPE	969	1,237	1,616	891	1,187	1,119	1,566	2,087	2,187
LLDPE	0	0	0	89	749	711	722	804	888
Total QAPCO EBITDA*	1,370	1,911	2,670	1,566	2,572	2,975	3,077	3,278	3,502

Source: HC Research

*QAPCO sales and EBITDA include other minor products like C3/C4 gas and Py-gas

Qatar Steel (QASCO)

- QASCO has attractive margins compared to its global and regional peers
- Advantages over global peers include sustained high import tariff protection, low-cost methane sourcing, low-cost power supply, and electric arc furnace technology
- EBITDA to grow at a CAGR of 28% from 2010e to 2014e mainly due to expansion

Outlook: Healthy capacity addition, improving margins, and stabilizing prices to drive EBITDA growth

Steel is the only segment where IQ does not have cheap local raw material access, which leads to lower margins compared to IQ's other divisions. However, on a standalone basis QASCO is a good company and has attractive margins compared to global peers. The company has historically maintained EBITDA margins of close to 28% due to its other advantages over peers such as (i) a 20% import tariff protection over last 25 years, (ii) an electric arc furnace running on a low-cost power supply that eliminates the requirement to import coking coal, and (iii) sourcing methane from Qatar Petroleum to reduce the cost of iron ore pellets. All these advantages help maintain healthy profitability at QASCO. Going forward, the company has large expansion plans, which along with any rise in steel prices will generate a strong growth in sales and EBITDA.

Brief Introduction

QASCO was established in 1974 in the Masaieed Industrial City of Qatar. It was the first integrated steel manufacturer among in GCC. It was established as a joint venture with Japanese steel companies Kobe Steel and Tokyo Boeki. The company started its commercial production in 1978. The Japanese steel makers sold their stake to the Qatari government in 1997, making QASCO a government entity. The government transferred in 2003 its entire stake to IQ making it a 100%-owned subsidiary of IQ.

Subsidiaries and Capacity

Besides production facilities in Qatar, the company also has stakes and interests in other regional steel manufacturers.

Table 6.1: QASCO Subsidiaries

Company	JV Partner	Business Description	Stake
Qatar Steel Dubai FZE	-	Steel	100%
Qatar Metals Coating Company (Q-COAT)	QIMCO	Metallic coatings	50.0%
United Stainless Steel Co.	GIC Kuwait, Al Rashid Group, NIG Kuwait, UGI Bahrain	Stainless Steel	25.0%
Gulf Industrial Investment Co. (GIIC)	GIC Kuwait	Financial	25.0%
Spheres Investment Limited	SABIC, Acorn Capital	Financial	9.0%
South Steel Company	Saudi Pan Kingdom company	Steel	20.0%

Source: Company reports

Table 6.2 shows the expansion plans of QASCO. Phase II of the expansion project faced delays after the financial crisis. According to the original plan, phase II was slated to come on stream in 2010e after the successful completion of phase I in 2007. According to new guidelines, it will now come online in 3Q12e. The total cost of phase II is around QAR4 billion.

We do not include phase III in our numbers due to delays and lack of clarity. QASCO can only start phase III once phase II, which it has not started yet, is complete. We prefer to wait and see the progress of phase II before including phase III into our numbers.

Table 6.2: QASCO Expansion Projects

Project/Subsidiary	Capacity Added (000 tons)	Product	Expected Start-up Date
Furnace Upgrade	900	Billets	3Q11
Phase-II Expansion	1200	Billets	3Q12
Phase-II Expansion	800	Bars	3Q12
South Steel Company	100	Bars	Mid 2011

Source: Company reports

Table 6.3: QASCO Total Installed Capacity (000 tons)

QASCO Production volumes (000 tons)	2006	2007	2008	2009e	2010e	2011e	2012e	2013e	2014e
DRI	800	1,550	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Molten Steel	1,038	1,338	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Billets	1,017	1,317	1,600	1,600	1,600	2,150	3,100	3,900	3,900
Bars	800	1,175	1,550	1,550	1,550	1,600	2,050	2,450	2,450
Coil	240	240	300	300	300	300	300	300	300
Total Production Volume (000 tons)	3801	3,895	5,620	7,450	7,450	7,450	8,050	9,450	10,650

Source: Company reports, HC Research

Imports not a threat, minimal demand-side risk

QASCO is the only steel producer in Qatar, which means it has no domestic competition. It is also protected from international competition by 20% import tariffs on steel imports across the GCC. As part of the GCC it is exempt from paying tariffs in other GCC countries. This arrangement makes QASCO not only a preferred supplier in the local Qatari market but also more competitive in the entire GCC region against international peers.

The collapse in steel prices in the mid-1980s led cheaper Japanese and Korean steel to flood the Qatari market. This made the government impose a 20% import tariff on steel. The tariff remains in place to this day, and we believe it is likely to remain in place for the near to medium term. The government has committed a huge CAPEX plan to expand QASCO's capacity. Given that the government controls 70% of QASCO through QP, it is unlikely that it would expose its flagship steel company to foreign competition at this stage.

QASCO also faces minimal demand-side risk as most projects and demand come from government and semi-government companies (according to company guidance) and hence faces little cancellation risk.

Steel Demand in Qatar

Qatar steel demand boomed in 2007 and 2008 before moderating in 2009. The demand growth rate in Qatar was around 46% in 2007 and 26% in 2008. Total demand in the country doubled to 8.4 million tons in 2008 from 4.2 million tons 2004. With capacity additions lagging behind growth in demand, much of the demand has been satisfied through imports despite high tariffs. Steel demand in Qatar is dominated by rebars and other long products that are primarily used in the construction industry.

Going forward Qatar's GDP growth is expected to average around 7.5% until 2013e as per BMI estimates. However, most expansion in GDP comes from the hydrocarbon sector with the expansion of LNG facilities. The non-hydrocarbon sector is expected to grow at a rate of around 5%.

Table 6.4: Qatar GDP Growth Estimates

	2010e	2011e	2012e	2013e
Qatar GDP	13.30%	9.10%	6.50%	4.30%
Hydrocarbon GDP	19%	12%	8%	5%
Share of Hydrocarbon Sector in GDP	60%	60%	60%	60%
Non-Hydrocarbon GDP	5%	5%	4%	3%

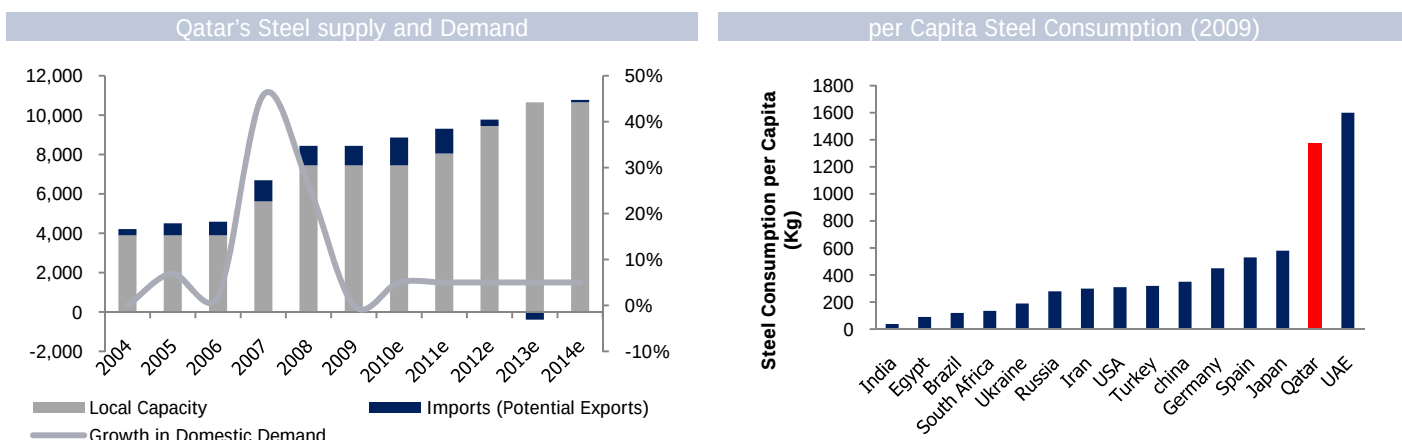
Source: BMI, HC Research

Steel consumption is closely linked to GDP growth rates. We forecast that steel demand in Qatar will equal the growth rate of the non-hydrocarbon sector. We believe our growth rate forecasts are conservative as the hydrocarbon sector also requires steel input for plant construction and this can lead to positive surprises in the demand growth outlook.

We believe heavy infrastructure spending by the Qatari government over the course of next five years will help support steel demand in the country. We expect the government to continue to pursue an expansionary fiscal policy. Capital expenditure as a percentage of total budgetary expenditure has reached close to 40% in 2010e and is not expected to drop in the near to medium term. There are many mega projects in the pipeline such as the USD11 billion New Doha International Airport, the USD2 billion Qatar-Bahrain Friendship Bridge, and the New Doha Port. Qatar is also planning to develop a rail network (expected to cost around USD40 billion) and upgrade its water supply network.

Chart 6.1 shows QASCO's supply/demand forecast estimates and a per capita steel consumption comparison. We expect steel consumption in Qatar to grow at a healthy rate of 5% on the back of sustained expenditure from the government. We believe our demand forecast is conservative as the company gives guidance of a 8% growth rate. Our estimated 5% growth rate of the local market is big enough to absorb the phase II capacity expansion. We forecast utilization rates of 90% for QASCO.

Chart 7.1: Qatar Steel Outlook and per Capita Steel Consumption



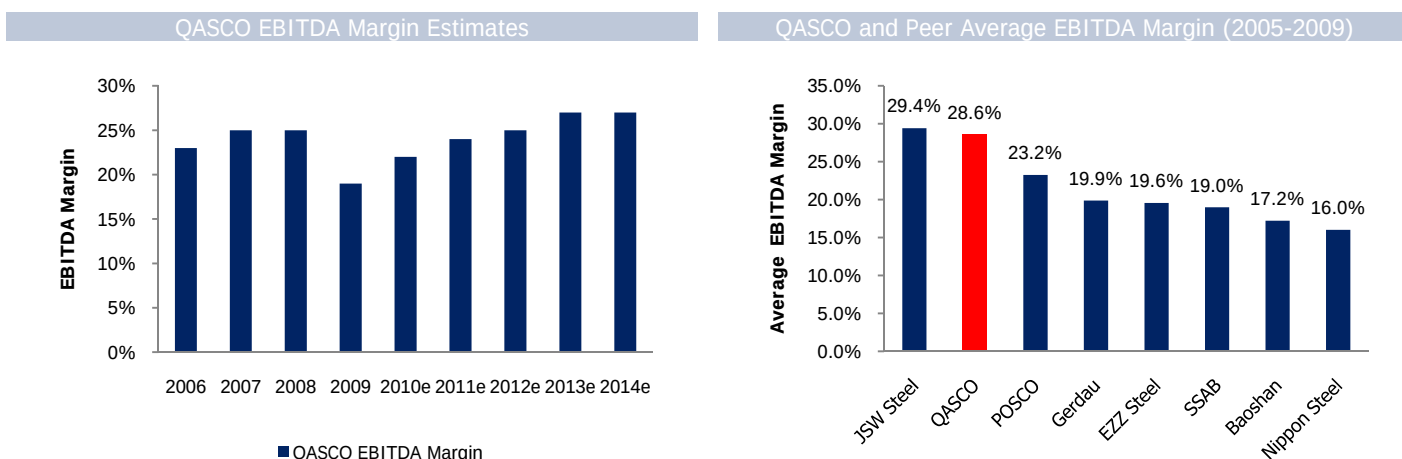
Source: World Steel Associations, BMI, ISSB, HC Research

Margins: Better than peers, showing improvement going forward

Compared to other segments of IQ, QASCO's margins appear to be low. However, they are good when compared to its global and regional steel peers. We believe that on a standalone basis QASCO is a good company with healthy margin and is not a laggard or a drag on IQ earnings.

QASCO's steel margins are better than many of its peers. We expect margins to improve going forward and increase to close to 27% by 2014e from 19% in 2009 (chart 6.2). Over the last five years, QASCO's average EBITDA margin was close to 29%.

Chart 6.2: QASCO Margins Estimation and Comparison to Peers



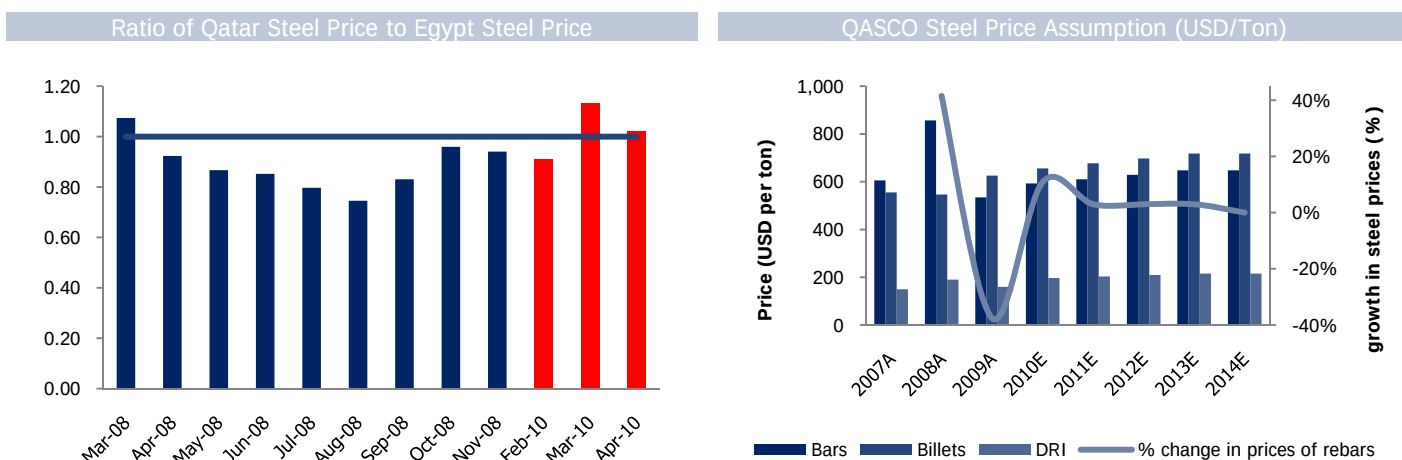
Source: Company reports, HC Research

Price Assumption

Qatar is linked to the regional market with a healthy steel trade. Hence the domestic price in Qatar should remain in line with regional prices. QASCO exports around 30% of its production and Qatar imports around 10%–15% of its total steel demand. However, under extreme market conditions the government can interfere to keep prices in control as they did in 2008. Being a wholly-owned subsidiary of the Qatari government and the only steel producer in Qatar, the Qatari government uses QASCO to control steel prices in the country. However, such control is limited to only extreme market conditions like in 2008.

As shown in chart 6.3, during the first nine months of 2008 the Qatari government froze domestic steel prices and hence Qatar steel prices were at a discount to Egypt's steel prices. However, no such control exists as of now, and in recent months Qatar's steel prices have been equivalent to regional prices. There is no fixed policy of price control in Qatar. Both these factors make us believe that steel prices in Qatar will remain in line with regional steel prices. For our QASCO model we use the rebars price forecasted by the HC Research steel team for Egypt.

Chart 6.3: Steel Price Assumption for Qatar Steel

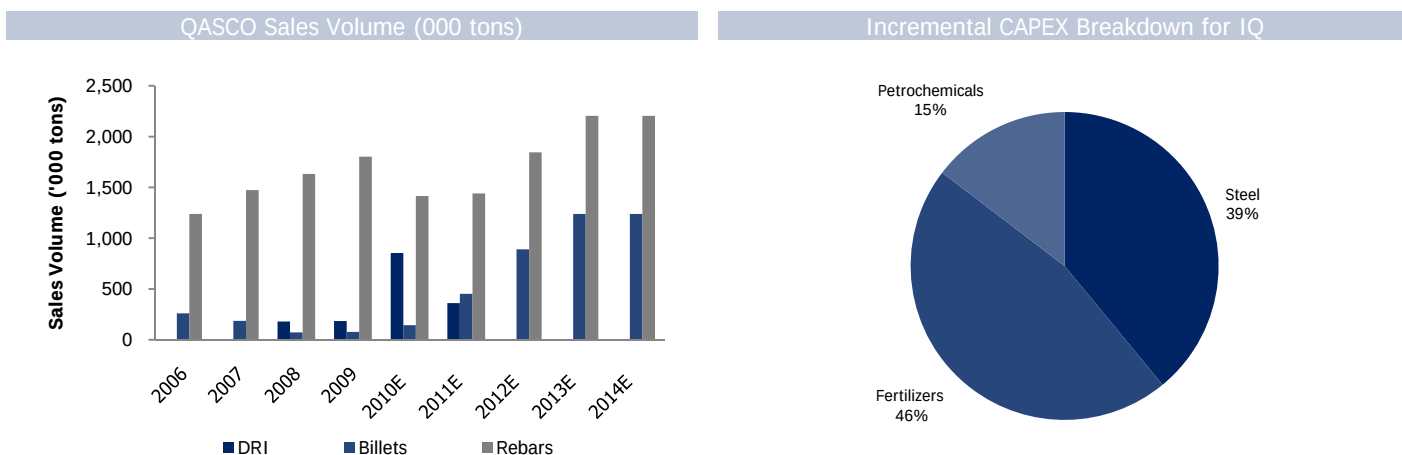


Source: HC Research

QASCO is a play on volume growth and healthy demand

We contend that QASCO is a play on strong volume growth supported by resilient local demand. As chart 6.4 shows, QASCO will increase its capacity by c50% in the next five years to over 10.5 million tons from the current 7.5 million tons. Most capacity additions will come from the phase II expansion plan, which entails expanding the rebar facility by 800,000 tons and the billets facility by 1.2 million tons. After phase II the company will have excess billets. It has already entered into an agreement with regional companies like South Steel Company of Saudi Arabia to provide billets from its facilities in Qatar

Chart 6.4: QASCO Sales Volume and CAPEX Share in IQ

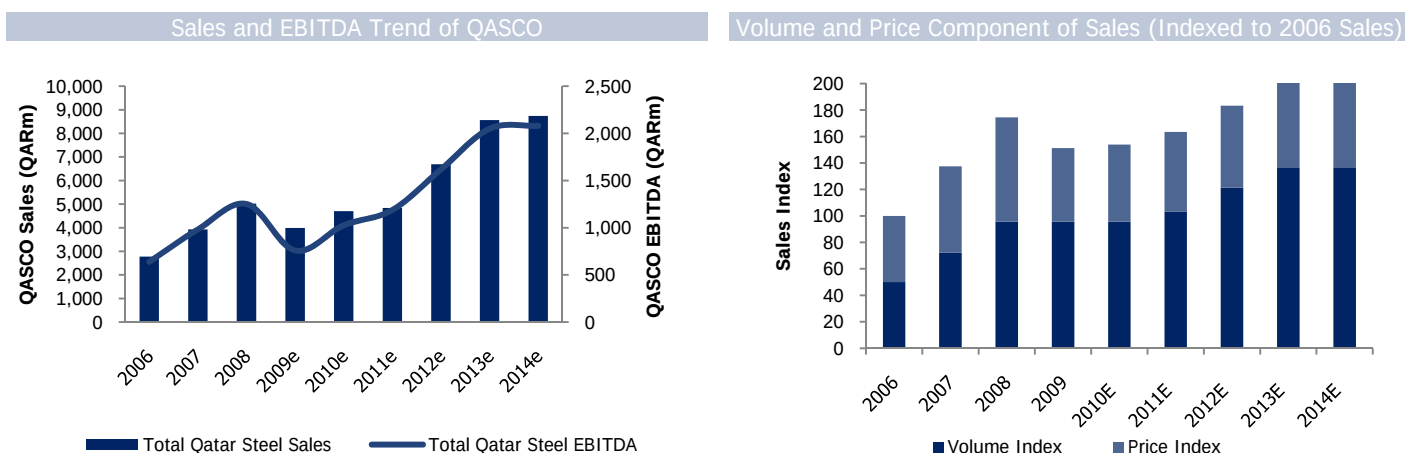


Source: Company reports, HC Research

Healthy growth going forward, volume growth to offset conservative price and margin assumptions

We forecast a healthy growth rate in sales at QASCO mainly due to increasing capacity. As chart 6.5 shows, the company's top line and EBITDA growth rate will be around 23% over the next five years. Sales are expected to reach QAR8.5 billion by 2014f.

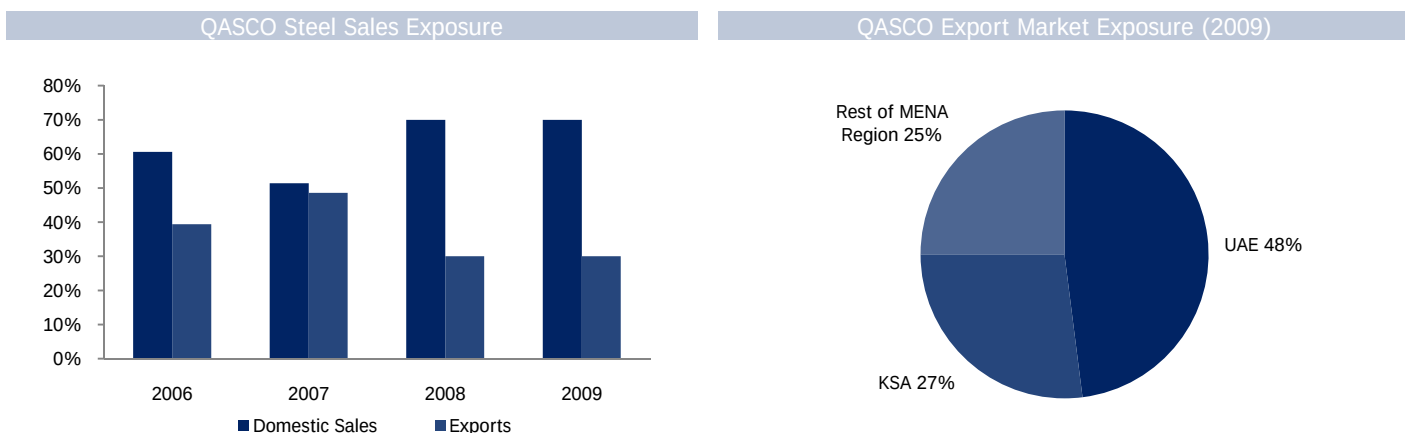
Excluding extraordinary items like government grants, the company's EBITDA dropped sharply in 2009 due to a drop in steel prices. As per our estimates, the company's EBITDA margin in 2009 was only 19%, much lower than historical EBITDA margins of close to 28%. Going forward we assume the EBITDA margin will move toward historical levels.

Chart 6.5: Earnings Trend at QASCO and Major Components of Sales Growth


Source: Company reports, HC Research

Geographic exposure

QASCO was established to primarily supply the domestic market. As domestic steel demand increases in Qatar, the company increasingly sells its product in the local market. However, aggressive expansion plans and the startup of overseas JVs could see increased exposure to export markets. Currently, QASCO's exports are limited to the MENA region.

Chart 6.6: QASCO Sales Exposure


Source: Company repots

QASCO earnings model

In table 6.5 we detail our earnings model for QASCO. Our earnings model is based on the expected capacity expansion, estimated operating rates, product price, and margin assumptions as estimated above. It is clear that the main drivers of capacity expansion are billets and bars, which will primarily be added as part of the phase II expansion.

We expect a healthy demand for steel in Qatar and hence expect the company will operate its plant at normal operating rates of 90% of capacity. We ignore operating rates of close to 100% (as seen in 2006) and mid-70% (as seen in 2009) as we believe both represent extreme market conditions. Also, company officials have gone on record saying they will operate their plant at normal operating rates and that they see healthy demand for their products. As of now, the company is self sufficient in billets, but after phase II it will have excess billets to export. EBITDA is expected to grow to QAR1,750 million in 2014e from QAR750 million in 2009, showing a CAGR of 23%.

Table 6.5: QASCO Earnings Model

Qatar Steel Capacity (000 tons)	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Sponge Iron or DRI	800	1,550	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Molten Steel	1,038	1,338	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Billets	1,017	1,317	1,600	1,600	1,600	2,150	3,100	3,900	3,900
Bars	800	1,175	1,550	1,550	1,550	1,600	2,050	2,450	2,450
Qatar Steel operating rates (%)									
DRI	110%	84%	68%	75%	91%	90%	90%	90%	90%
Molten Steel	100%	88%	90%	106%	91%	90%	90%	90%	90%
Billets	100%	87%	88%	76%	91%	90%	90%	90%	90%
Bars	91%	82%	74%	75%	91%	90%	90%	90%	90%
Qatar Steel Sales volumes (000 tons)									
DRI	0	0	180	184	854	360	0	0	0
Billets	259	185	72	76	143	452	890	1,239	1,239
Rebars	1,239	1,473	1,632	1,802	1,624	1,728	2,214	2,646	2,646
Total Sales Volume (000 tons)	1,498	1,658	1,884	2,062	2,621	2,540	3,104	3,885	3,885
Product pricing (QAR/ton)									
DRI		546	692	582	581	555	571	589	601
Billets	1,897	2,022	1,990	2,277	1,946	1,776	1,829	1,884	1,922
Bars	1,846	2,413	2,912	2,051	2,432	2,220	2,286	2,355	2,402
Sales (QAR mn)									
DRI	0	0	124	128	492	200	0	0	0
Billets	491	374	143	174	244	803	1,627	2,334	2,381
Bars	2,287	3,554	4,752	3,685	3,964	3,837	5,061	6,232	6,357
Total Qatar Steel Sales	2,779	3,928	5,020	3,987	4,700	4,839	6,688	8,566	8,738
EBITDA Margins (QAR/ton)									
DRI		126	152	130	118	117	126	135	138
Billets	436	505	517	433	398	413	397	397	397
Bars	425	603	728	390	535	555	571	589	601
EBITDA (QAR mn)									
DRI	0	0	27	24	100	42	0	0	0
Billets	113	94	37	33	54	186	353	492	492
Wire Rod Coil	526	889	1,188	700	872	959	1,265	1,558	1,589
Total Qatar Steel EBITDA	639	982	1,253	758	1,026	1,188	1,619	2,050	2,081

Source: Company reports, HC Research

Qatar Fuel Additive Company (QAFAC)

- No capacity expansion planned for QAFAC due to unavailability of natural gas
- Lower margins than fertilizers and petrochemical divisions as butane is sourced at market price
- Expected to maintain EBITDA contribution at QAR1.0 billion with methanol prices as a main source of variation

Brief Introduction

QAFAC was established in 1991. The company started commercial production in 1999. QAFAC is essentially a producer and exporter of methanol and methyl tert-butyl ether (MTBE). QAFAC is a joint venture between IQ (50%), OPIC Netherlands Antilles (20%), International Octane Limited of Dubai (15%), and LCY Middle East Corporation of Taiwan (15%).

The current installed capacity of the company is 1.0 million tons of methanol and 610,000 tons of MTBE. The company has no capacity expansion going on due to a lack of natural gas. Only natural gas required for methanol is provided at a lower cost by QP while butane required for MTBE production is given at a slight discount to the market rate. Hence, the company has no major incentive to increase its MTBE capacity to consume methanol. It is better off selling excess methanol after producing MTBE. The bulk of QAFAC's production is exported, mainly to the Persian Gulf, the Far East, and Europe.

Table 7.1: QAFAC Installed capacity

QAFAC Capacity (000 tons)	2003	2004	2005	2006	2007	2008	2009e	2010e	2011e	2012e	2013e	2014e
Methanol	833	833	833	903	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
MTBE	610	610	610	673	610	610	610	610	610	610	610	610

Source: Company reports

Methanol and MTBE basics

Methanol

Methanol is the simplest alcohol and is one of the most important commodity chemical. Methanol as an industry is much more consolidated than overall commodity chemicals, with over 40% of global capacity shared by the top five producers. Canadian methanol giant Methanex is the leading global manufacturer with around 17% of global capacity. The majority of the methanol facilities are based on a low-cost natural gas supply in regions like Equatorial Guinea, Trinidad, Chile, and the Middle East.

China also has large production base of methanol and has new facilities coming up. We believe that despite being the fastest growing region of methanol supply and demand, Chinese facilities will not dent the profitability and pricing structure of the global methanol industry. This is because most Chinese facilities are targeted towards serving the local energy market rather than capturing the export market.

Methanol has wide end-usage, and its application can be broadly split into two categories: (i) general chemical usages like the production of formaldehyde and acetic acid and (ii) energy applications like manufacturing of MTBE, dimethyl ether (DME). Methanol also has direct fuel applications.

MTBE

MTBE is the second-largest end-market for methanol and consumes around 16% of global methanol. MTBE is an oxygenate used to increase the amount of oxygen in fuels to reduce carbon monoxide emissions. MTBE was first used as oxygenate in 1979, but its application increased sharply after the passage of the Clean Air Act Amendments in 1990. The act mandated a 2.0% by weight oxygen increase in gasoline as increasing oxygen in petrol helps reduce unburned carbon particles and carbon monoxide emissions. At the time, MTBE and ethanol were the most common oxygenates available, which resulted in a sharp increase in MTBE usage.

MTBE is not a growth end-market for methanol. Its application is falling primarily because of concerns raised over its environmental effects. MTBE is water soluble, and studies in the US have indicated that it has seeped into groundwater reserves, which led several US states to ban it. It is expected to phase out completely from the US, but is still used in many other parts of the world.

Methanol: Marginal cost of production and price setters

Only natural gas for methanol production at QAFAC is supplied at a lower cost, hence the main cost advantage in QAFAC flows through methanol only. It is important to understand the production of economics of methanol to gauge the idea of the cost advantage QAFAC has over its global peers.

Methanol can be produced from various different sources of feedstock like natural gas, LPG, residual fuel oil, and coal. However, natural gas is the preferred source of raw material with over 79% of global production based on natural gas. The second major raw material for methanol is coal, which is mostly used in China. Table 7.2 shows the cost of production of methanol at IQ, market-linked gas producers, and coal-based producers.

Table 7.2: Methanol Cost of Production

		QAFAC Cost	Market Linked Gas Cost	Coal-Based Cost
Raw Material Cost	Gas (USD/mmbtu); Coal (USD/ton)	1.25	5.5	110
Gas Consumption per Ton of Methanol	mmbtu/ton	36.4	36.4	1.32
Cost of Feedstock	USD/ton	46	200	145
Total Utilities	USD/ton	24	24	26
Total Direct Costs	USD/ton	15	15	14
Less By Product Credit	USD/ton	0	0	10
Ex-Works Cost	USD/ton	94	248	176
Freight	USD/ton	30	30	30
Total Delivered Costs	USD/ton	124	278	206

Source: HC Research

Producers that pay market-linked gas prices are the marginal cost producers and hence the price setters. At current natural gas prices of around USD5.5/mmbtu, QAFAC's cost of production is less than half that of marginal cost producers, giving it an immense cost advantage. Coal-based facilities fall in between these, but only China has coal-based methanol production and that too is targeted towards the local market rather than exports. Most Chinese coal-based methanol facilities are landlocked and transporting them to the coastal region for exports is cost ineffective.

The high cost of production in the US and Europe has led to large-scale shutdowns of methanol plants in the region and no new capacity is coming up. As a result, most methanol production is now based on low-cost natural gas. However, there is still considerable capacity in Europe and the US, which are based on market-based natural gas. These producers continue to be price setters for methanol.

Pricing outlook

Based on our analysis of the cost structure, we forecast our methanol price assumptions based on the market-linked gas price forecasts. Table 7.3 details our methanol price forecasts for the next five years. As per our estimates, methanol prices will remain between USD300/ton and USD350/ton, and we don't expect any sharp spikes in methanol prices until and unless there is high volatility in natural gas prices.

Table 7.3: Methanol Pricing Outlook

		2010e	2011e	2012e	2013e	2014e
Raw Material Cost	Gas (USD/mmbtu); Coal (USD/ton)	6.1	6.1	6.7	7.5	7.5
Gas Consumption per Ton of Methanol	mmbtu/ton	36.4	36.4	36.4	36.4	36.4
Cost of Feedstock	USD/ton	222	222	242	273	273
Total Utilities	USD/ton	24	24	24	24	24
Total Direct Costs	USD/ton	15	15	15	15	15
Less Byproduct Credit	USD/ton	0	0	0	0	0
Ex-Works Cost	USD/ton	270	270	290	321	321
Freight	USD/ton	30	30	30	30	30
Total Delivered Costs	USD/ton	300	300	320	351	351

Source: HC Research

MTBE's main raw materials are methanol and butane. With butane being a petrochemical product, we used estimates from our global petrochemical pricing database to derive our price forecasts for MTBE, which we have detailed in table 7.4.

Table 7.4: MTBE Pricing Outlook

		2010e	2011e	2012e	2013e	2014e
Methanol Price	USD per Ton	313	300	320	351	351
Butane Prices	USD per Ton	652	635	642	672	703
Methanol Consumption per Ton of MTBE		0.34	0.34	0.34	0.34	0.34
Butane Consumption per Ton of MTBE		0.84	0.84	0.84	0.84	0.84
Methanol Costs	USD per Ton	106	102	109	119	119
Butane Costs	USD per Ton	547	533	538	563	590
Total Raw Material Costs	USD per Ton	653	635	647	682	709
Total Utilities	USD per Ton	35	35	35	35	35
Total Direct Costs	USD per Ton	20	20	20	20	20
Ex-Works Cost	USD per Ton	708	690	702	737	764
Freight	USD per Ton	30	31	32	33	34
Total Delivered Costs	USD per Ton	738	721	734	770	798

Source: HC Research

QAFAC's Cost Structure and Margins

QAFAC produces methanol and is partially integrated downstream to produce MTBE using methanol and butane. QP provides the natural gas and butane QAFAC requires. However, there is little to no information available on the feedstock price agreement between QAFAC and QP. For our analysis we assume QP will provide natural gas at the same price to all companies under the umbrella of IQ.

However, the cost of butane does not come under the fixed subsidized cost price regime. In gas processing facilities a significant amount of gas liquids like ethane, propane, butane, and condensate are produced, but only ethane is supplied at a fixed low-cost price agreement by QP to downstream industries. Other heavier natural gas liquids are sold in the international market.

We believe butane is supplied to QAFAC at a slight discount to international prices. This discount is mainly due to backing outs in the freight and port terminating charges from the international prices and does not represent any cost advantage to the company. Non-cost advantaged butane lowers the overall profitability of QAFAC compared to QAFAC and QAPCO.

Table 7.5 shows our margin model for QAFAC. We assume that natural gas will be supplied at USD1.25/mmbtu and butane at a 20% discount to international prices. Methanol required to produce MTBE will be provided at cost.

Table 7.5: QAFAC Margin Model

	Units	2010e	2011e	2012e	2013e	2014e
Raw Material Cost	Gas (USD/mmbtu); Coal (USD/ton)	1.25				
Gas Consumption per Ton of Methanol	mmbtu/ton	36.4				
Cost of Feedstock	USD/Ton	46				
Total Utilities	USD/Ton	24				
Total Direct Costs	USD/Ton	15				
Less By-product Credit	USD/Ton	0				
Ex-Works Cost	USD/Ton	94				
Freight	USD/Ton	30				
Total Delivered Costs of Methanol for QAFAC	USD/Ton	124				
		2010e	2011e	2012e	2013e	2014e
Methanol Price	USD/Ton	300	300	320	351	351
Methanol Margin For QAFAC	USD/Ton	177	177	197	228	228
		2010e	2011e	2012e	2013e	2014e
QAFAC MTBE Margin Model						
Butane Prices (International)	USD/Ton	652	635	642	672	703
Butane Prices - QAFAC Assuming A 20% Discount	USD/Ton	522	508	513	537	562
Butane Prices - QAFAC	QAR/Ton	1899	1850	1869	1956	2047
MTBE Economics						
Methanol Cost	USD/Ton	32	32	32	32	32
Butane Cost	USD/Ton	438	426	431	451	472
Fixed Costs	USD/Ton	45	45	45	45	45
MTBE Cost	USD/Ton	514	503	507	527	548
MTBE Price Forecasts	USD/Ton	738	721	734	770	798
MTBE Margin For QAFAC	USD/Ton	223	218	226	243	249

Source: HC Research

QAFAC's Earnings Model

Table 7.6 details our QAFAC earnings model based on our price and margins assumptions for methanol and MTBE. We do not expect capacity expansions at QAFAC for the next five years after the write off of the phase II expansion in 2009 because of a lack of natural gas.

There is very little information and guidance over the production and operating rates of the company. We forecast that the company will operate at 95% capacity given that it has a cost advantage to keep running its plants at normal utilization rates. This year, operating rates are on the lower side as the company has experienced a major shutdown of over 45 days in 2Q10. We avoid the peak capacity utilization scenario as the demand for MTBE is waning in key markets, especially the US.

As per our estimates, earnings in QAFAC will remain steady at best without any sharp increases. We forecast a small rebound in 2010e earnings on the back of a rebound in methanol prices. After that, earnings will have a very gentle upward trend. EBITDA is expected to grow at a CAGR of 7% for next five years. Earnings are very sensitive to the methanol price assumption. Healthy supply additions would keep prices from spiking. We do not forecast much volatility in methanol prices going forward.

Table 7.6: QAFAC Earnings Model

	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
QAFAC Capacity (000 tons)									
Methanol	903	1000	1000	1000	1000	1000	1000	1000	1000
MTBE	673	610	610	610	610	610	610	610	610
Operating Rates									
Methanol					84%	95%	95%	95%	95%
METBE					84%	95%	95%	95%	95%
QAFAC Sales Volumes (000 Tons)									
Methanol	659	650	807	793	664	754	754	754	754
MTBE	674	608	673	610	511	580	580	580	580
Product Pricing (QAR/Ton)									
Methanol	904	1037	1456	946	1,138	1,092	1,165	1,278	1,278
MTBE	2104	2428	3030	2153	2,685	2,623	2,672	2,805	2,904
Sales (QAR mn)									
Methanol	595	674	1175	751	760	823	878	963	963
MTBE	1418	1476	2039	1313	1,384	1,520	1,548	1,625	1,683
Total QAFAC Sales	2,014	2,150	3,214	2,064	2,144	2,343	2,426	2,588	2,645
Margins (QAR/Ton)									
Methanol	485	619	1006	502	708	625	636	727	711
MTBE	815	845	853	544	793	786	798	850	867
EBITDA (QAR mn)									
Methanol	320	402	812	398	473	471	479	548	535
MTBE	549	514	574	332	408	456	462	493	503
Total QAFAC EBITDA	869	916	1,386	730	881	927	942	1,041	1,038

Source: HC Research

IQ Real Estate Venture: Fareej Real Estate

- A very small division compared to other established companies like QAPCO and QAFCO
- An opportunistic investment and unnecessary diversification, we believe
- Real estate projects are expected to yield 10 % on assets and to earn 40 % in net income margin

Brief introduction

IQ formed a real estate joint venture in January 2008 with Qatar Real Estate Investment Co. (QREIC). This marked the entry of IQ in an entirely different business segment in which it had neither experience nor natural competitive advantage.

The joint venture was formed to transact and manage residential, commercial, and industrial properties in Qatar and neighboring countries. The JV started with an initial capital outlay of QAR1.0 billion. QREIC was established in 1995 and is one of the leading real estate developers in Qatar. It is active in establishing and managing of residential compounds around industrial complexes in Qatar. The company also deals in land.

An opportunistic investment

We believe IQ's decision to enter the real estate business was purely opportunistic. We agree that Qatar's real estate market fundamentals were strong in 2008, but this business does not fit the strategy and vision upon which the company was established.

IQ's main objective was to develop Qatar's industrial base by utilizing its natural gas. Entering real estate was a deviation from this strategy. With no previous experience in managing real estate projects, we believe IQ must be acting as a sleeping partner in the JV, with most of the control remaining in the hands of QREIC.

The returns on this JV are also not expected to beat the net income margins of IQ's core business operations. IQ's average net income margin since its inception has averaged 48% while QREIC's best net income margin has been around 42%. Net income margin of their JV in 2009 was around 41%. Clearly, the real estate JV is not an outperformer like the rest of IQ. We believe the company would be better off deploying capital in its core businesses where it has a competitive advantage and experience. Otherwise, IQ should return the money to shareholders.

Real Estate Earnings Model

There is limited information on the real estate JV in the company reports. We prepared our earnings model for real estate based on CAPEX and assets disclosed for the segment, the reported net income margin, and the general yield on real estate projects.

The company has no future projects in its real estate division after the launch of Fareej Tower II so segment assets will remain constant after 2010e. We assumed a 10% yield on real estate assets and kept the net income margin at 40% like in 2009.

Table 8.1: Real Estate Earnings Model

	2009	2010e	2011e	2012e	2013e	2014e
Assets	220	320	320	320	320	320
Capital Expenditure	100	0	0	0	0	0
Sales	2	32	32	32	32	32
Yield	1%	10%	10%	10%	10%	10%
Net Income	1	13	13	13	13	13
Net Income Margin	42%	42%	42%	42%	42%	42%
Depreciation		13	13	13	13	13
EBITDA		26	26	26	26	26

Source: HC Research

Risks

Fall in energy prices

IQ, like its regional peers, derives its cost advantage from lower-priced feedstock. Any correction in energy prices would impact its cost advantage, margins, and profitability. However, we assume that the feedstock cost price of IQ is not fixed and moves along with the market price of natural gas. This implies that IQ's margins would remain more stable than fixed-cost producers.

Fall in product prices

Any fall in product prices due to oversupply in the market or a drop in energy prices leads to a drop in IQ's earnings. In the steel segment there is an added risk that the company might be forced to keep prices low despite a sharp increase in raw material costs like iron ore. Failure to pass on the cost could lead to margin pressure. This risk is more specific to the steel segment.

Failure to secure gas supply for capacity expansion

This is one of biggest risks IQ faces at the moment. Qatar has had a moratorium of new projects in place since 2007. Natural gas supply for expansions is scarce and reflected as IQ had to suspend the QAFAC II expansion project. The bulk of the company's expansions are happening in the steel segment where it does not have a cost advantage. Only QAFAC 5 and 6 and LDPE 3 are cost advantaged. Expansion of the Ras Laffan cracker has also not been approved yet.

The company has healthy expansions plans for the next three years, but the picture is murky after that. Considering that chemical and fertilizer plants take around three to four years to complete, there is a possibility that there will be a lag after 2012e when no major petrochemical and fertilizer projects are slated to come online, limiting the company's organic growth opportunity.

Increased domestic competition

This risk is more specific to QAPCO since all other business segments remain the only producers of their respective products in the country. Until now, QAPCO was the sole petrochemical producer in Qatar. The recently approved QP-Exxon cracker (in which QAPCO is not a stakeholder) raised concerns that QAPCO's hold on the Qatari petrochemical market might end, leading to increased domestic competition. However, the QP-ExxonMobil plant was envisioned before the moratorium. The recent announcement of the LDPE 3 facility shows that QAPCO remains the flagship company for petrochemical development in the country. Also, these producers target the export market and don't have space and incentive to compete in the domestic market.

Longevity of gas supply contracts and steel tariffs

Investors are also concerned about the longevity of the gas supply contract between IQ and QP. While there is some clarity on the length and price of the gas price contracts, we do not know if the gas supply contract for QAFAC will be valid until 2019. Such clear information on other segments is not available. However, the main purpose of IQ is to monetize gas reserves and increase the country's industrial production base.

QP owns 70% of IQ, which is expanding its capacity and has commitments of over QAR20 billion over the next five years. Therefore, we don't think the government will allow any major change in the gas supply contract at this stage where cost economics of all projects may change. Similarly, steel tariffs are also not expected to change in the near to medium term. A 20% steel tariff has been in place for more than 20 years, and the company depends on this to keep its profitability intact. Given that the company has aggressive expansion plans we would be surprised if the government removes the import tariffs at this stage and exposes QAFAC to international competition. Import tariffs were in place even in 2006 and 2007 when there was high steel demand from the construction sector. We see no reason why the government should remove them now.

Cyclicality

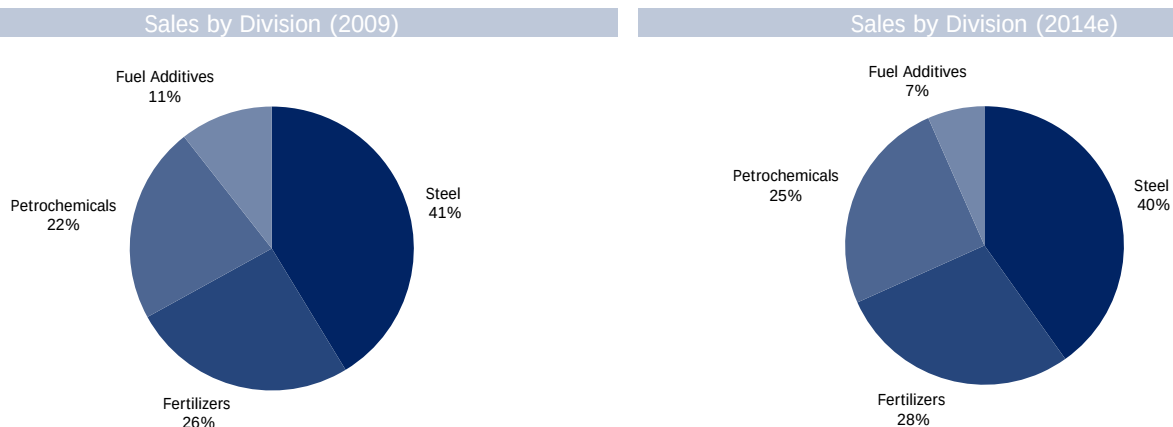
IQ produces commodity chemicals, which make its earnings cyclical. Global commodity product prices are determined by energy prices, industry operating rates, and supply/demand conditions. Although a ready local market for its products reduces sale volume volatility as the company is not dependent on exports, prices are set internationally and linked to global economic conditions. Any downfall in demand could loosen the supply/demand balance and place downward pressure on prices.

Operating risks

In addition to normal business risks, petrochemical producers are also exposed to other operating risks. Petrochemical plants include handling and processing of dangerous materials including explosives and flammable substances.

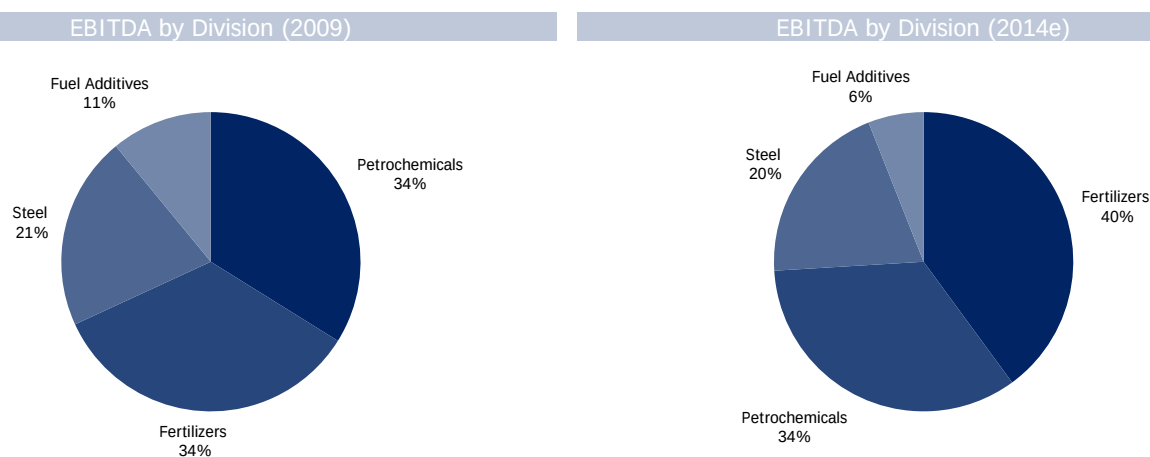
Appendix 1: IQ at a Glance

Chart A1.1: Industries Qatar Revenue Exposure by Division



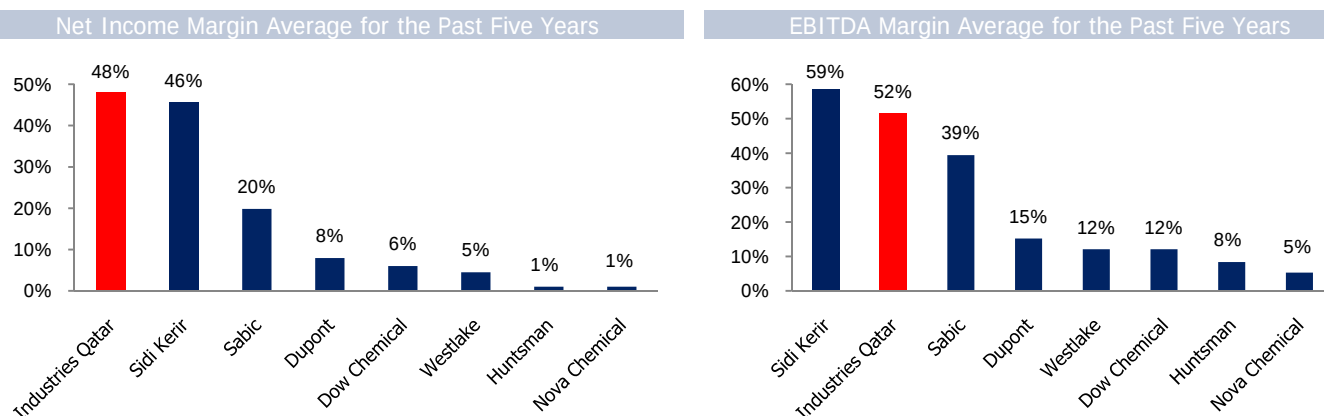
Source: Company reports, HC Research

Chart A1.2: Industries Qatar EBITDA Exposure by Division



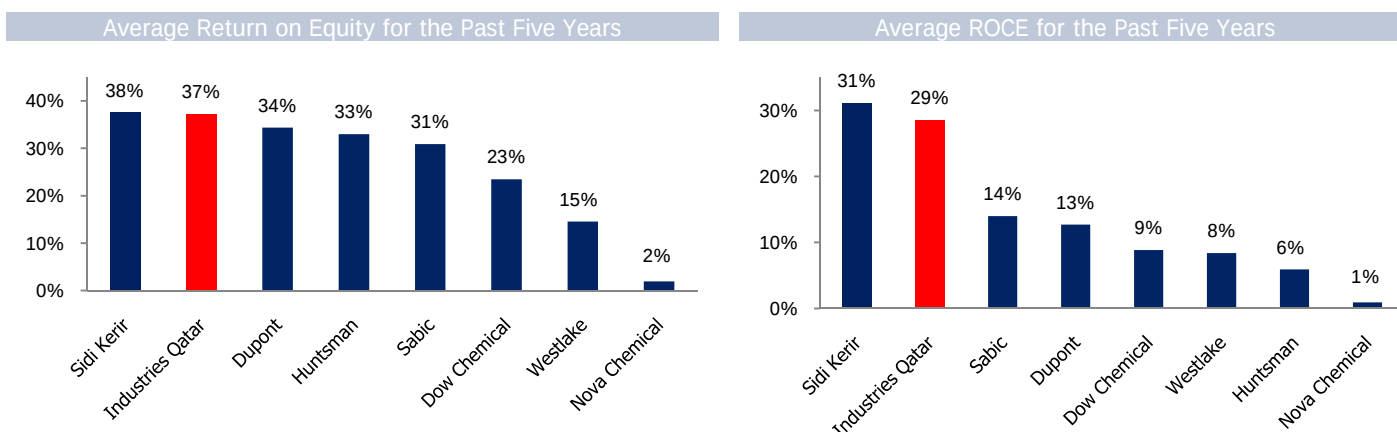
Source: Company reports, HC Research

Chart A1.3: Margin Comparison of IQ to Global and Regional Peers



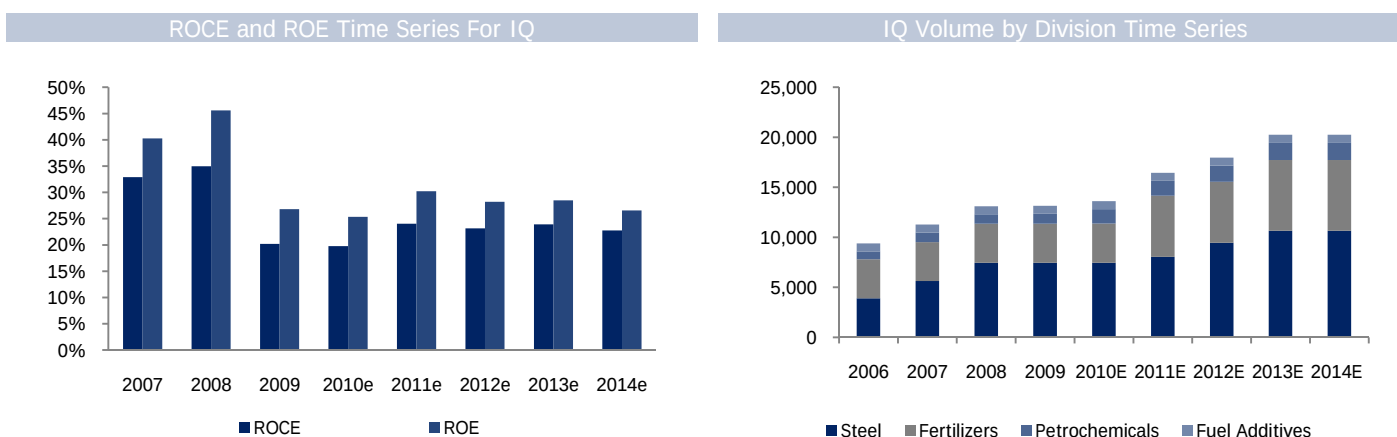
Source: Company reports

Chart A1.4: Return Comparison of IQ to Global and Regional Peers



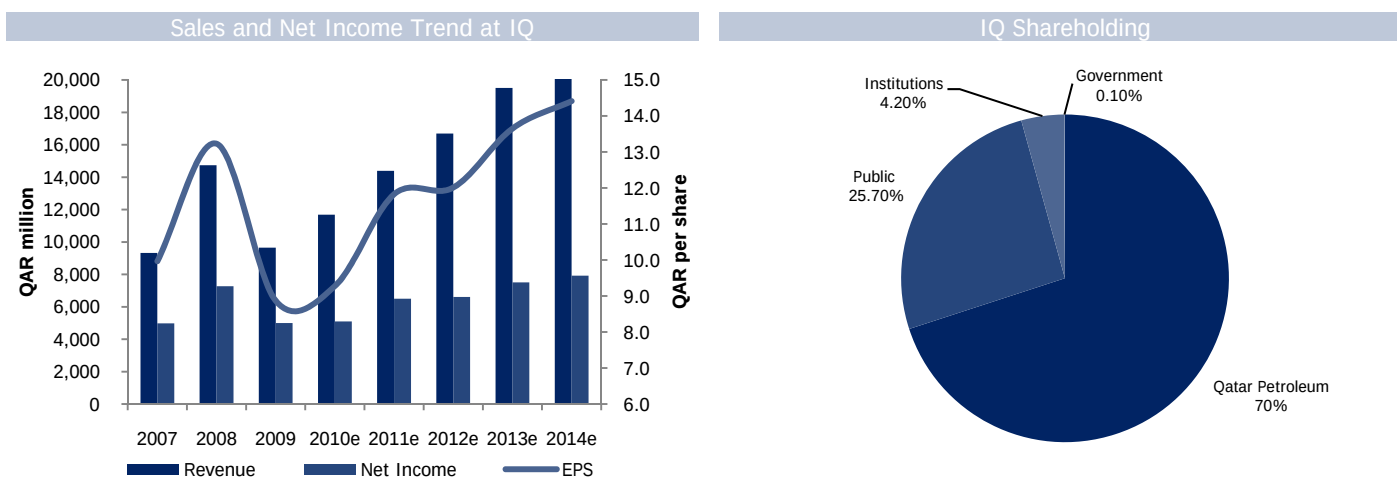
Source: Company reports

Chart A1.5: IQ Returns and Volume Time Series



Source: Company reports, HC Research

Chart A1.6: IQ Earnings Trend and Shareholding Structure



Source: Company reports, HC Research

Appendix 2: Financial Model

Table A2.1: Income Statement

QAR million	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Sales									
Petrochemicals	1,742	2,153	2,982	2,164	3,275	4,017	4,124	4,450	4,664
Fuel Additives	1,007	1,004	1,402	1,023	1,072	1,172	1,213	1,294	1,323
Steel	2,790	2,734	5,770	3,987	4,700	4,839	6,688	8,566	8,738
Fertilizers	2,240	3,435	4,590	2,480	2,609	4,372	4,666	5,198	5,360
Real Estate				2	32	32	32	32	32
Gross Revenues	7,778	9,326	14,743	9,657	11,610	14,203	16,692	19,507	20,084
Cost of Goods Sold (Ex. Dep)	(3,567)	(3,995)	(6,952)	(5,232)	(5,426)	(6,275)	(7,968)	(9,642)	(9,862)
Gross Profit	4,211	5,331	7,791	4,424	6,184	7,928	8,723	9,865	10,222
1.1.1. Sales, General, and Admin Expenses	(456)	(593)	(577)	(741)	(852)	(1,001)	(1,170)	(1,205)	(1,205)
SG&A As percentage of Sales	5%	4%	6%	6%	6%	6%	6%	6%	6%
Depreciation Expense	(399)	(461)	(525)	(665)	(873)	(1,197)	(1,301)	(1,301)	(1,301)
Unusual Items		(31)	0	0	0	0	0	0	0
Operating Income (EBIT)	3,273	4,475	6,706	3,323	4,777	6,203	6,525	7,393	7,716
Interest (Excluding Interest Income)	(80)	(144)	(100)	(194)	(223)	(223)	(223)	(219)	(219)
Equity in (Loss) Earnings of Associates	52	270	31	63	62	65	74	77	77
Equity in (Loss) Earnings of Investments	245	320	381	207	93	62	90	178	178
Other Income	292	126	1,369	172	172	172	172	172	172
Income Before Taxes/Zakat	3,622	4,985	7,278	5,003	5,026	6,308	6,601	7,506	7,925
Tax/Zakat Provision			0	0	0	0	0	0	0
Taxes As % of Income Before Tax	0%	0%	0%	0%	0%	0%	0%	0%	0%
Minority Interest	1	2	2						
Net Income	3,622	4,985	7,278	5,003	5,026	6,308	6,601	7,506	7,925
Unusual Items After Tax			(125)	0	0	0	0	0	0
Net Income After Unusual Items	4,985	7,278	4,878	5,026	6,308	6,601	7,506	7,925	7,925
EPS Ex Non-Operating Income	9.38	13.00	6.38	8.83	11.16	11.69	13.34	14.10	14.10
EPS	7.24	9.97	13.23	8.87	9.14	11.47	12.00	13.65	14.41
Number of Shares (Diluted)	500	550	550	550	550	550	550	550	550
Dividend per Share	3.50	4.00	8.00	5.00	5.48	6.88	7.20	8.19	8.64

Source: Company reports, HC Research

Table A2.2: Cash Flow Statement

QAR million	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Operating Activities									
Net Income	3,620	4,983	7,277	4,878	5,103	6,507	6,607	7,510	7,928
Depreciation and Amortization	525	399	461	525	665	873	1,197	1,301	1,301
Provision of EOSB	40	35	59	42	0	0	0	0	0
Provision For Doubtful Debts	3		335	13	0	0	0	0	0
Gain on Revaluation of Investment Property	(107)	(30)	24	(6)					
Loss (Profit) on Disposal of Investments	3	(115)	(24)	(0)					
Income From Associates	(20)	(52)	(270)	(30)	(64)	(64)	(65)	(74)	(77)
Finance Charges	44		(162)	(258)	(14)	128	155	130	37
Other Items			69	(987)	(172)	(172)	(172)	(172)	(172)
Cash Before Changes in WC			7,773	4,179	5,519	7,272	7,722	8,694	9,017
(Increase) Decrease in Accounts Receivable	(346)	(213)	42	(155)	153	(319)	(269)	(331)	(68)
(Increase) Decrease in Inventories	(122)	(231)	(1,482)	1,105	(367)	(271)	(548)	(538)	(71)
Increase (Decrease) in Accounts Payable	476	1,295	(539)	(630)	(448)	104	210	207	27
Cash From Operations			5,793	4,499	4,857	6,786	7,114	8,032	8,906
Interest Paid			(144)	(243)	14	(128)	(155)	(130)	(37)
Cash Flows From Operating Activities	4,099	6,073	5,614	4,216	4,871	6,658	6,960	7,902	8,868
Investing Activities									
Capital Expenditures	(2,107)	(2,530)	(222)	(981)	(4,470)	(4,500)	(2,100)	(1,000)	(1,000)
Net Movement in Catalyst and Other Assets			(31)	(34)	0	0	0	0	0
Acquisitions of Investments + Other Assets, Net	(68)		(31)	(107)	0	0	0	0	0
Movement in Project Under Development	(53)		(2,911)	(3,849)					
Movements in Deposits Maturing After Ninety Days	(229)	(1,008)	(1,002)	2,515	0	0	0	0	0
Interest Income Received			306	358					
Cash Flows From Investing Activities	(2,411)	(4,310)	(3,936)	(2,038)	(4,470)	(4,500)	(2,100)	(1,000)	(1,000)
Financing Activities									
Payments on Long-Term Debt		1,275	2,595	(39)	(307)	(0)	(119)	0	0
Dividends Paid	(1,750)	(2,500)	(2,000)	(4,400)	(2,750)	(3,062)	(3,904)	(3,964)	(4,506)
Grant From State of Qatar				1,166					
Cash Flows From Financing Activities	(1,242)	(1,228)	594	(3,274)	(3,057)	(3,062)	(4,023)	(3,964)	(4,506)
Increase (Decrease) in Cash and Equivalents									
Net Increase (Decrease) in Cash, Cash Equivalent	446	536	2,272	(1,096)	(2,656)	(903)	837	2,938	3,362
Cash at Beginning of Period	2,677	3,123	3,664	5,936	4,840	2,184	1,280	2,117	5,055
Cash at End of Period	3,123	3,659	5,936	4,840	2,184	1,280	2,117	5,055	8,417

Source: Company reports, HC Research

Table A2.3: Balance Sheet

QAR million	2006	2007	2008	2009	2010e	2011e	2012e	2013e	2014e
Assets									
Bank Balances and Cash	4,626	6,171	9,445	5,834	3,178	2,274	3,111	6,049	9,411
Accounts Receivable	1,150	1,267	1,298	1,527	1,374	1,693	1,962	2,293	2,361
Inventories	1,142	1,373	2,521	1,377	1,744	2,015	2,563	3,102	3,173
Due From Related Parties	543	639	566	492	492	492	492	492	492
Investments Held For Trading	27	103	125	129	129	129	129	129	129
Other Current Assets			121	2	2	2	2	2	2
Total Current Assets	7,489	9,553	14,076	9,360	6,919	6,605	8,259	12,066	15,567
Property, Plant, Equipment Gross	14,188	16,685	14,768	17,191	17,191	27,591	33,290	34,290	35,290
Less: Accumulated Depreciation	7,802	8,190	8,630	9,076	9,741	10,614	11,811	13,112	14,413
Property, Plant, Equipment, Net	6,386	6,364	6,138	8,115	7,450	16,977	21,479	21,178	20,877
Investment in Associates	359	1,171	1,487	1,412	1,412	1,412	1,412	1,412	1,412
Investments Available For Sales	294	453	248	289	289	289	289	289	289
Intangible Assets	72	72	72	96	96	96	96	96	96
Investment Property	118	148	124	197	197	197	197	197	197
Projects Under Development		2,276	5,186	7,518	9,499	3,599	(0)	0	0
Catalyst			119	134	134	134	134	134	134
Other Assets	163	104	0	1	237	473	710	956	1,205
Total Non-Current Assets	7,392	10,588	13,374	17,761	19,313	23,176	24,316	24,261	24,209
Total Assets	14,880	20,142	27,450	27,121	26,231	29,780	32,575	36,327	39,776
Liabilities									
Current Portion of LT Debt	205	1,084	2,668	307	0	119	0		102
Accounts Payable	1,047	2,019	1,367	1,117	669	773	984	1,190	1,217
Due To Related Party	422	746	858	478	478	478	478	478	478
Total Current Liabilities	1,675	3,849	5,059	1,930	1,148	1,370	1,462	1,668	1,798
Long-Term Debt	1,962	2,358	3,369	5,692	5,692	5,573	5,573	5,573	5,471
Other Liab., Deferred Credits		103	590	260	260	260	260	260	260
Provision For Employees EOSB	119	154	177	180	180	180	180	180	180
Total Liabilities and Provisions	3,796	6,464	9,195	8,061	7,279	7,383	7,474	7,681	7,708
Share Capital	5,000	5,000	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Legal Reserves	105	141	142	143	143	143	143	143	143
Cumulative Changes in Fair Values	132	310	141	142	142	142	142	142	142
Hedging Reserves	(38)	(103)	(635)	(307)	(18)	(18)	(18)	(18)	(18)
Retained Earnings	3,373	5,820	8,695	10,819	13,173	16,618	19,321	22,866	26,288
Proposed Div./Bonus Issues	2,500	2,500	4,400	2,750					
Minority Interest	12	11	11	13	13	13	13	13	13
Total Shareholder Equity	11,084	13,678	18,254	19,060	18,952	22,398	25,101	28,646	32,068
Total Liab., Shareholder Equity	14,881	20,142	27,450	27,121	26,231	29,780	32,575	36,327	39,776

Source: Company reports, HC Research

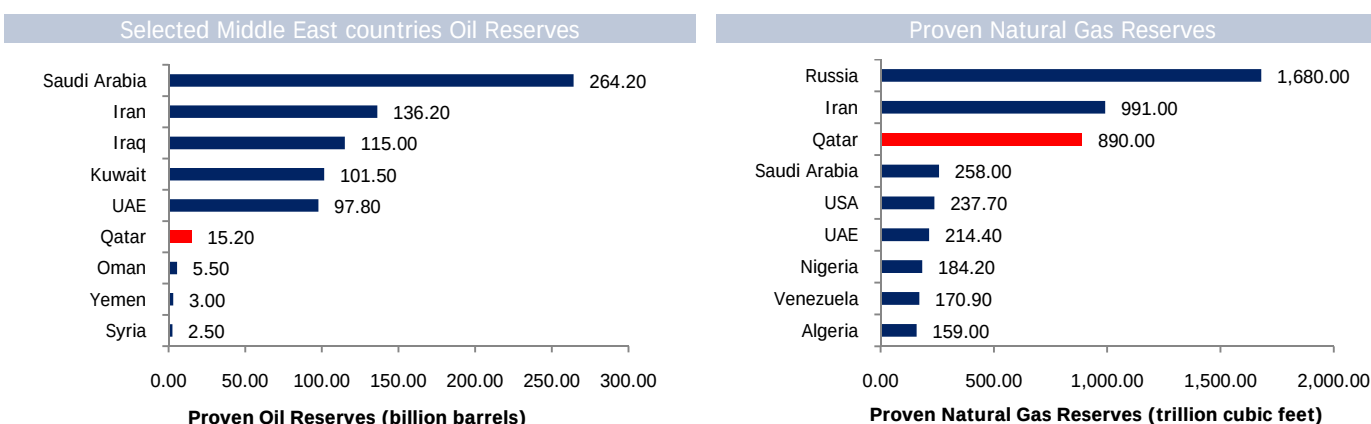
Appendix 3: Qatar Energy Profile and Gas Development Strategy

- Qatar's gas development strategy tilted towards LNG instead of petrochemical and GTL because of non-associated nature of gas reserves
- Moratorium on new projects appears to still be in place with virtually no new capacity announcements
- Competitive advantages of all IQ divisions flow through low-cost gas sourcing agreement with QP

Hydrocarbon Assets: Predominantly natural gas

Qatar's economy, like many GCC countries, is primarily dependent on hydrocarbon resources. Unlike most of its GCC peers, Qatar has a much smaller crude oil reserve base compared to natural gas. Qatar has proven oil reserves of 15.2 billion barrels, which places it sixth among Middle Eastern countries. However, natural gas is the dominant source of hydrocarbon reserves and the estimated proven reserves of around 890 trillion cubic feet are the third-highest gas reserves in the world behind Russia and Iran.

Chart A3.1: MENA Region Hydrocarbon Reserves Comparison By Country

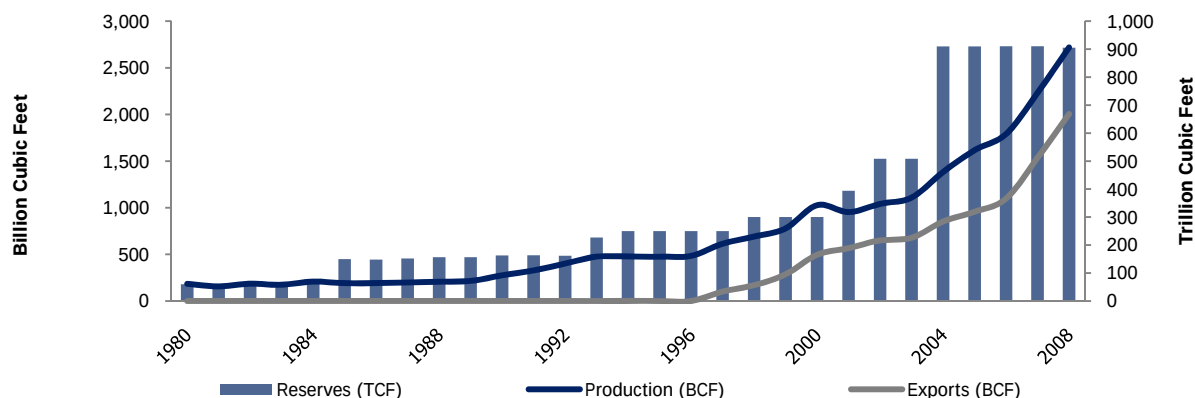


Source: US EIA as on Jan 2009

Qatar's hydrocarbon assets are highly concentrated. The North Gas Field represents almost all natural gas reserves in the country while the onshore Dukhan field is the country's largest oil producing field. Qatar's annual production capacity is around 1.2 million barrels per day, which puts the country's oil reserve life at around 40 years. However, Qatar's oil producing fields are maturing.

In contrast to crude oil, the country has rich reserves of natural gas. Qatar's main gas field, North Gas Field (also known as North Dome) was discovered in 1971. North Gas Field is the world's largest non-associated natural gas field and contains around 10% of the global proven natural gas reserves. It is essentially a geological extension of South Pars Field in Iran. In the 70s and 80s the main focus was searching for crude oil as the natural gas market was undeveloped. However, in recent years the expansion of LNG facilities gives a major thrust in the expansion of gas production through this field.

Chart A3.2: Qatar Dry Natural Gas Production, Exports, and Reserves Time Series

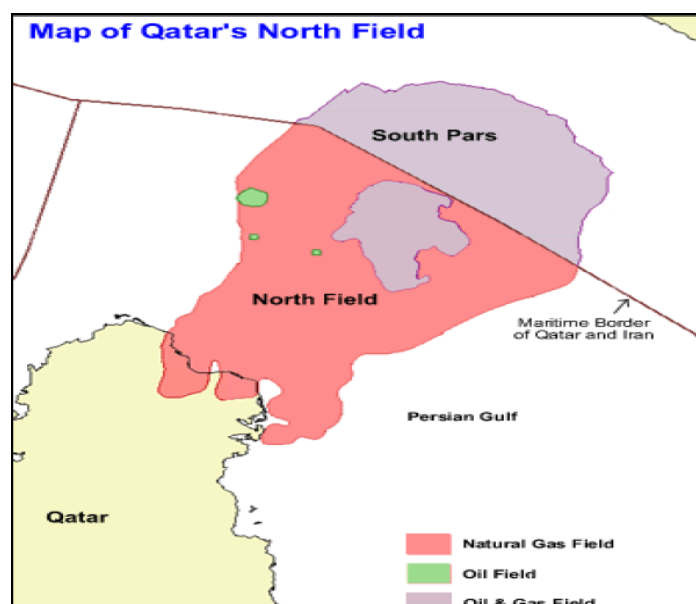


Source: EIA statistical data

Countries looking to monetize their natural gas reserves have many options to choose from. Natural gas can be utilized in the downstream petrochemical industry, exported as liquefied natural gas (LNG), or used to produce liquid fuels through gas-to-liquid (GTL) technology. These options are not mutually exclusive as ethane and higher natural gas liquids used as petrochemical feedstock can be stripped from natural gas before using it in LNG and GTL processes. Hence, a country can very well choose to pursue a diversification strategy as well. The type of natural gas reserves a country has, production economics, capital intensity, local employment generation, and overall energy usage strategy are the most important considerations in finalizing how to best monetize gas reserves.

The production economics of LNG and GTL depend heavily on the off-take price agreements and have much higher capital intensity. On the other hand, ethylene plants have lower capital intensity and would be highly cost competitive over a range of energy price assumptions. However, ethylene plants are more suited for associated gas finds while non-associated gas is better exploited by the heavier volume usage like LNG. Chart A3.3 shows that most of Qatar's natural gas reserves are non-associated. Qatar's thrust on natural gas usage has been focused on developing LNG. In contrast, Saudi Arabia focuses mainly on petrochemical facilities as it has mainly associated natural gas reserves.

Chart A3.3: Qatar Hydrocarbon Reserves (Nature and Type)



Source: US EIA, December 2009

Qatar's expansion in the petrochemical industry has been limited by only one major new project, the QP-ExxonMobil ethylene cracker has been announced recently. Most announced projects like the Ras-Laffan cracker and associated downstream PE facilities have already secured ethane gas supply. This left little incentive to invest further in ethane extraction facilities. However, adding ethane extraction capability at a later stage remains feasible and such facilities could be easily added to projects like the Dolphin Gas Project.

GTL facilities have been dropped in preference for LNG. The main reason for the lack of GTL projects is the high cost and subsequent run up in the capital cost of the plant after it is announced. Three main GTL projects were launched in Qatar: Palm GTL with ExxonMobil, Qryx GTL with Sasol, and Pearl GTL with Shell. Of these, Palm GTL has already been cancelled because of high costs. Qryx GTL is operational and Palm GTL is expected to come online in late 2010. Palm GTL's original cost was estimated at USD4 billion, but this has now risen to over USD18 billion. Spiraling costs have made GTL plants uneconomical. No other GTL project has been announced.

The initial idea of diversification through GTL has not worked out as planned and the loss of GTL has translated to the gain of LNG. Now the bulk of gas development is focused on LNG facilities. Table A3.1 shows the major LNG facilities and upcoming projects in Qatar. Qatar aims to reach an LNG capacity of 77 million tons within next two years, but in the light of recent delays this looks a bit ambitious. However, projects face little cancellation risks given the cost advantage.

Table A3.1: Qatar's Existing and Upcoming LNG Facilities

Company Train	Ownership	LNG (mn ton/yr)	Gas Req. (BCF/year)	Year of Start-up	Primary Market
Ras Gas					
Train 1 and 2	QP (70%), ExxonMobil (30%)	6.6	320	1999	South Korea
Train 3	QP (70%), ExxonMobil (30%)	4.7	230	2004	India
Train 4	QP (70%), ExxonMobil (30%)	4.7	230	2005	Europe
Train 5	QP (70%), ExxonMobil (30%)	4.7	230	2007	Europe and Asia
Train 6	QP (70%), ExxonMobil (30%)	7.8	380	2009	China
Train 7	QP (70%), ExxonMobil (30%)	7.8	380	2010	China
Qatar Gas					
Train 1,2, and 3	QP (65%), ExxonMobil (10%), Total (10%), Mitsui (7.5%), Marubeni (7.5%)	9.6	480	1996	Japan and Spain
Train 4	QP (70%), ExxonMobil (30%)	7.8	380	2009	UK
Train 5	QP (65%), ExxonMobil (18.3%), Total (16.7%)	7.8	380	2009	UK
Train 6	QP (68.5%), ConocoPhillips (30%), Mitsui (1.5%)	7.8	380	2010	US
Train 7	QP (70%), Shell (30%)	7.8	380	2011	China and North America
Total LNG capacity		77.1	3770		

Source: Qatargas, Rasgas, Company reports

Moratorium on new projects

Qatar decided to place a three-year moratorium on the new gas projects in 2005 due to a concern that the overly rapid development of the North Gas Field would damage the reservoir and reduce its reserve life to less than the targeted 100 years. The recent sharp increase in the production of natural gas and planned capacity has declined the reserve life close to this threshold. There has been no official confirmation that it has been lifted. The recent approval of the expansion of LNG facilities and the QP-ExxonMobil ethylene cracker indicates that a complete moratorium has been partially lifted. While the situation remains unclear, it is assumed that plants will now be reviewed on a case-by-case basis.

**Rating Scale**

Recommendation	Upside
Buy	Greater than 20%
Hold	-5% to 20%
Sell	Less than -5%

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