



STOCK DETAILS

BSE Code	500201
CMP – 14th October, 2009	Rs. 114/-
Market Capitalisation	Rs. 3,178.6 mn
Face Value (Rs.)	10
Book Value (Rs.)	134/
52 Wk High (BSE)	Rs. 193.70 (24 th September, 2008)
52 Wk Low (BSE)	Rs. 41.55 (12 th March, 2009)

COMPANY PROFILE

Established in 1989 by the Delhi – based Bhartia family, India Glycols Ltd. (IGL) is one of the leading manufacturers of Glycols, Ethylene Oxide Derivatives, Ethyl Alcohol (Potable). It is the only company in the world which has commercialized the production of Ethylene Oxide and Glycols from molasses. India Glycols has approximately 1000 customers whom it caters to with approximately 180 products.

IGL has 2 manufacturing units Uttar Pradesh – one at Kashipur and other at Gorakhpur which have the flexibility to use molasses or ethanol as feedstock, enabling it to efficiently tide over price fluctuations in raw materials.

Subsidiaries:

IGL has a controlling stake in Shakumbhari Sugar and Allied Industries Limited (SSAIL), which operates a sugar manufacturing plant in Uttar Pradesh with a crushing capacity of 5,500 tonnes per day (TCD) along with a modern distillery of 40 KL per day (KLPD) which is expected to be expanded to 240 KLPD producing high quality rectified spirit, ethanol, country liquor and an internal bagasse fired co – generation plant with a capacity of 11.4 MW which would be further enhanced to 25.5 MW.

IGL has also established a subsidiary in Singapore – "IGL Chem International PTE Ltd. to augment its activities in South Eastern region and help marketing of products from Supercritical Fluid Extraction facility at Dehradun to large buyers in US and Europe.



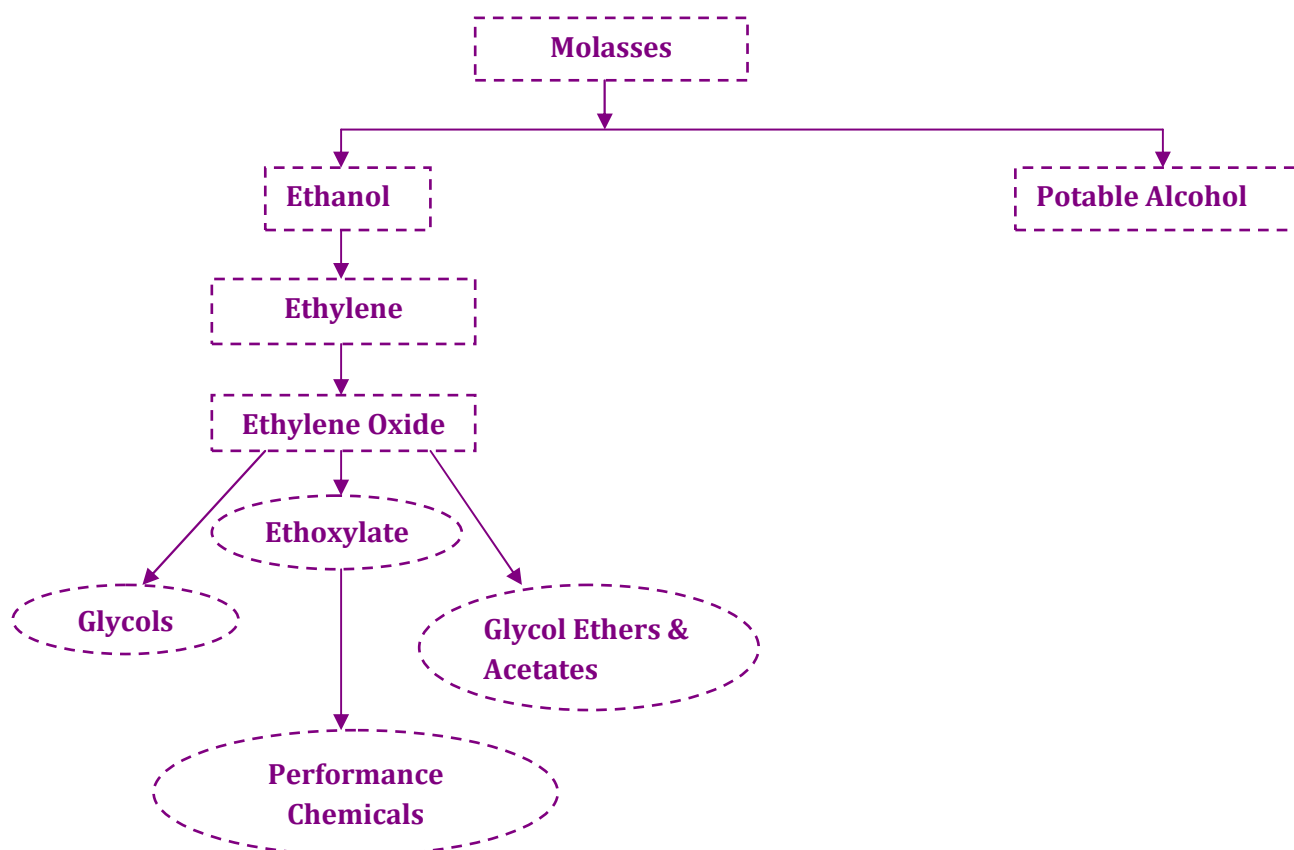
ABOUT THE BUSINESS

India Glycols Ltd. (IGL) is the world's only producer of Mono Ethyl Glycol (MEG) through agro route which helps IGL to enjoy better margins as compared to MEG produced through petrochemicals route.

It also produces performance chemicals, which are used by many user industries including agrochemicals, detergent, brake fluids, emulsion, polymerization & paints, textiles, oil and gas, personal care, pharmaceuticals etc.

IGL has ~1,000 customers whom it caters to with approximately 180 products. IGL has fully integrated facilities for better control and value addition at every step.

The manufacturing process is as follows:



Source: Company



ABOUT THE BUSINESS

IGL has organized its business into chemicals and other segments:

A) Chemical segments comprises:

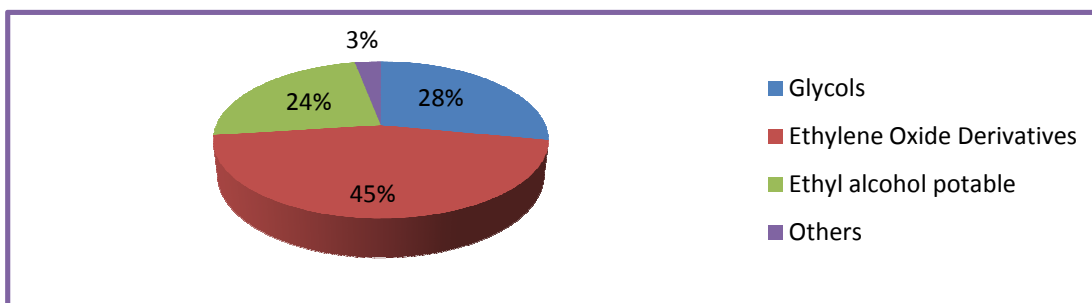
Glycols (MEG, DEG, TEG and Heavy Glycols)
Ethylene Oxide Derivatives (EODs)

B) Ethyl Alcohol (Potable) and extra natural alcohol

C) Others includes high sulphur alcohol, hydrochloric acid, natural gum, industrial gases etc.

Segment wise Revenue Contribution

FY 2009





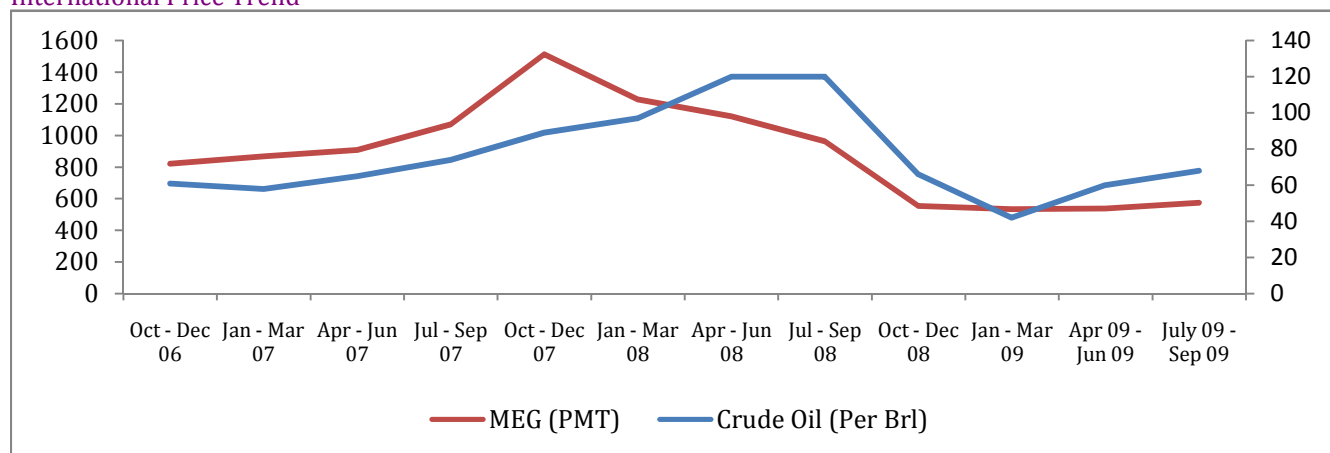
Glycols, Ethylene Oxide Derivatives – Chemicals segment:

The chemical segment is the main revenue – generating segment for IGL. This segment has contributed 73% (28% from Glycols and 45% from Ethylene Oxide Derivatives) of total sales (domestic + exports) in FY 09. The revenue from this segment is driven by MEG prices and the demand for performance chemicals from the user industries. FY 09 revenues in this segment especially in the Glycols took a hit due to meltdown in the world economies, adversely affecting Glycols demand resulting due to global glut. Consequently, price of MEG crashed from US\$ 1200 per MT (Jul – Sept 07) to US\$ 450 per MT (Oct – Dec 08). Currently; the prices are trading ~US\$ 700 per tone. (12th Oct, 2009). However, the prices of feedstock like molasses and alcohol did not come down in line with international prices of crude oil. The performance was further adversely affected as domestic prices of its feedstock viz. molasses and alcohol was high on account of poor availability of sugar cane.

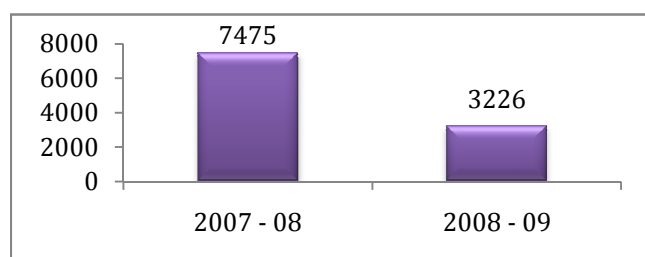
International Price Trend (in US\$) - (Average Quarterly prices)

	Oct - Dec 06	Jan - Mar 07	Apr - Jun 07	Jul 07	Oct - Dec 07	Jan - Mar 08	Apr - Jun 08	Jul 08	Oct - Dec 08	Jan - Mar 09	Apr - Jun 09	Jul 09
Crude Oil	61	58	65	74	89	97	120	120	66	42	60	68
MEG (PMT)	822	869	908	1071	1513	1228	1120	963	555	535	539	676

International Price Trend



Revenues from Glycols (Rs. in mn)

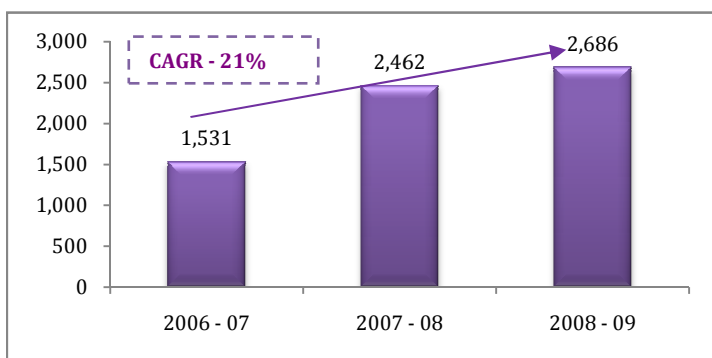




Ethyl Alcohol (Potable) and extra natural alcohol

This segment has contributed 24% to the total sales of FY 09. IGL has the most modern and largest captive distillery in Asia. It produces country liquor as well as Indian – made Foreign Liquor (IMFL). IGL is also engaged in third party bottling. It registered total sales of Rs. 2,686 mn compared to Rs. 2,462 mn last year.

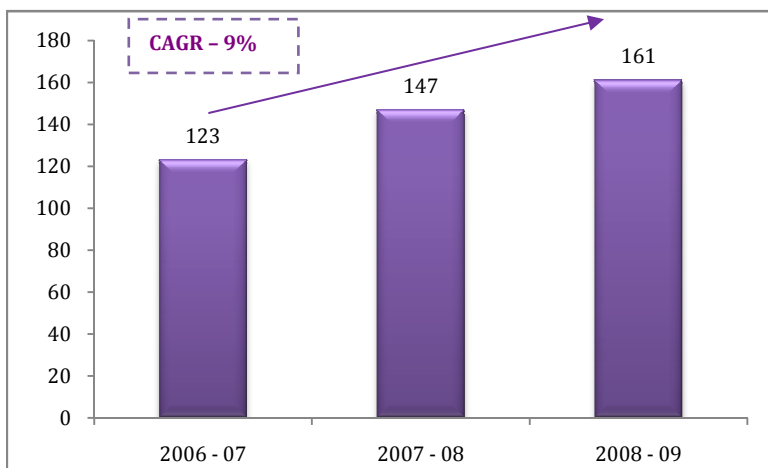
Revenues of Ethyl Alcohol Division (Rs. in mn)



Others

This segment includes industrial gases, high sulphur alcohol, hydrochloric acid, natural gum etc. In FY 09, Industrial Gases division produced 50148619 NM³ of Oxygen and 15406578 NM³ of Nitrogen. Both Oxygen and Nitrogen were successfully marketed and were also used for captive consumption in MEG Plant. This division also produces Argon and Carbon – Di oxide gases which yield remunerative prices. This division registered revenues of Rs. 161 mn (FY 09) compared to Rs. 147 mn in FY 08.

Revenues of Industrial Gases Division (Rs. in mn)

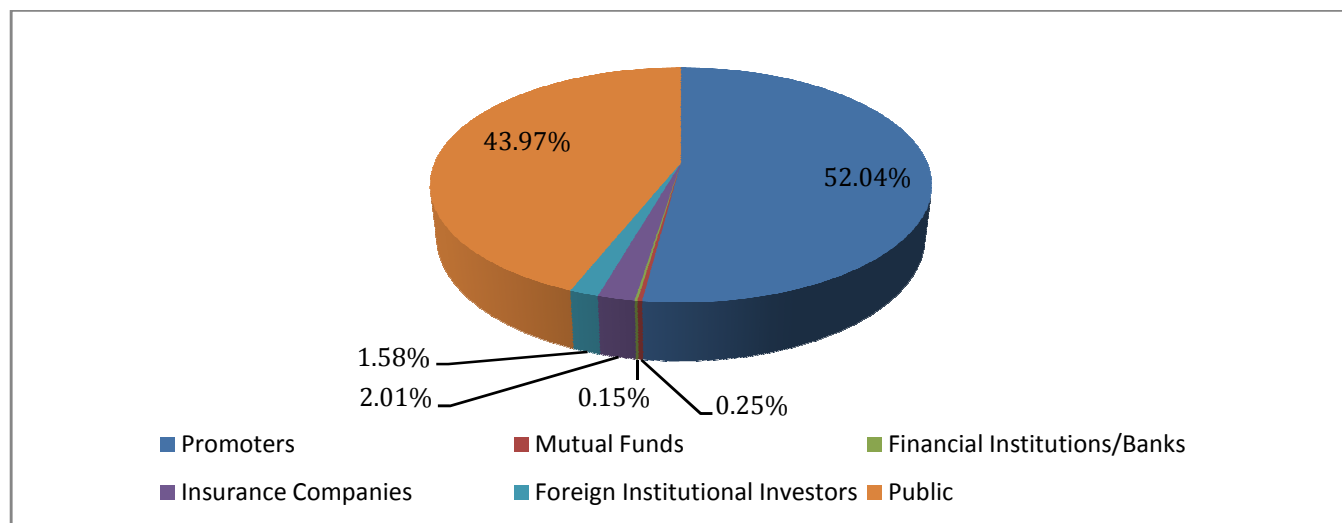




FINANCIAL HIGHLIGHTS

Particulars (Rs. In millions)	FY 08	FY 09	FY 10E	FY 11E
Sales	13,438	10,213	10,737	12,991
EBITDA	3,398	7	1,115	1,708
EBITDA Margin	25%	0.06%	10%	13%
Net Profit	1,784	(1,090)	388	774
PAT Margin	13%	(10)%	3%	6%
No. of Equity Shares (mn)	27.88	27.88	27.88	27.88
Diluted EPS	64.03	(32.96)	13.92	27.77
EPS growth	335%	(151)%	142%	100%
P/E (x)	3.85	-	8.19	4.11
Book Value (Rs.)	177	134	145	157

SHAREHOLDING PATTERN AS ON JUNE 2009





COMPETITIVE STRENGTHS

- 1) **Competitive Cost Advantage:** IGL is the only producer in the world producing Mono Ethyl Glycol (MEG) through the agro route. This helps it to generate better margins as compared to players producing MEG through the petrochemicals route which is dependent on crude prices. MEG produced from the molasses route gives a 20% cost advantage compared to MEG produced from the petrochemicals route without compromising on the quality. Hence it is able to sell at market linked prices.
- 2) **Fully integrated facility:** IGL will enjoy better price realization on account of its fully integrated facility resulting in lower production costs.
- 3) **Captive consumption and sale of By products like CO2 (Carbon Dioxide) at competitive prices**
- 4) **World Class Technology**

Product	Technology/Licensors
Glycols	Scientific Design Company Inc., USA (leading Ethylene Oxide/Ethylene Glycol licensors globally)
Ethoxylates and PEGS	Press industria AG, Italy (leading Ethoxylates technology licensors globally)
Performance chemicals	Sanyo Chemical Industries Ltd. Japan, Leader in speciality Surfactants in Japan
Glycol Ethers	Sulzer Chemtech, Switzerland
Extra Neutral Alcohol	Alfa Laval, India, USA

5) Acquisition of Shakumbari Sugar & Allied Industries Ltd. (SSAIL):

- a) **Increased prices of molasses to be partially mitigated:** Availability of key raw material – molasses which is a by product of sugar industry was a concern for IGLs production. Disruption in the supply of sugarcane on account of shortage of rainfall would have resulted in company paying higher prices for molasses. IGL is expanding its distillery capacity by 6 times from 40KLPD to 240 KLPD for making ethanol from molasses/sugarcane juice. With this acquisition the company has partially mitigated the risk by 20 -30%.
- b) **Internal Bagasse Fired Co-generation plant capacity for captive power consumption:** IGL has a plant capacity of 11.4 MW which would be enhanced to 25.5 MW of power generation. Out of which 15.5 MW would be used for captive consumption. The surplus power of approximately 10 MW will be sold to the grid.



RISK & CONCERNS:

- 1) **Over capacity situation:** Capacity creation in Saudi Arabia and Iran, may result in short term excess availability of MEG in the world market during the year 2009 – 10. In India, IOC is setting up an MEG plant at its Panipat refinery for a capacity of 3.5lakh TPA, which is expected to be operational by FY11.
- 2) **Increased prices of sugarcane:** Availability of key raw material – molasses which is a by product of sugar industry is crucial for IGLs production. Shortage in rainfall would result in sugarcane shortage resulting in increased molasses prices and disruption in the supply of the same may force the company to buy ethanol directly from the market which may increase the production cost.
- 3) **MEG prices linked to crude prices:** There is a direct correlation of MEG prices with prices of the crude oil. Any downside in the prices of the crude oil would affect MEG prices negatively which will result in lower realizations for the company.
- 4) **Fall in custom duty may affect the prices of MEG:** Currently the custom duty is 5.15% on MEG products. Reduction in custom duty would attract foreign players introducing MEG products in India which would affect the domestic prices of MEG.

RISK MITIGATION

- 1) Although increased prices of molasses remain a concern. However incremental price rise in molasses would be lower as compared to price rise in crude oil.
- 2) **To protect against the risk of molasses shortage**, it has taken a number of actions which are as follows:
 - a) IGL has created large storage of feedstock, ensuring that adequate quantities can be procured during the season.
 - b) IGL has also setup additional distillery at Gorakhpur in Eastern U.P. so that company can procure molasses available in that area to improve availability of feedstock by expanding its procurement over large area.
 - c) IGL has also setup a RAB Unit (Concentrated Sugar Juice) at Kashipur to supplement the feedstock requirement.
 - d) Launched various incentives plans for the cane growers and for development of cane growing area, resulting into an upward growth in cane growing areas of Uttarakhand.
- 3) **To mitigate the competition risk and fluctuation in market prices of MEG**, IGL follows an aggressive pricing policy and follows practice of giving special discounts to customers purchasing in large volumes and having long term contracts. IGL is monitoring its MEG capacity in tune with the demand and utilizing excess capacity available for production of EOD. The demand and the prices of EODs remains stable and are margins accretive which takes care of adversities in demand and prices of MEG.



GROWTH DRIVERS

- 1) Growth in Polyester industry to drive future growth:** There has been substantial increase in polyester manufacturing capacities in India due to major expansion undertaken at Reliance, Indo Rama, JBF and Garden Mills. Consequently, polyester industry is expected to grow at 11% during the FY 2009 – 10. Overall demand of MEG in India is 1,200,000 MTPA as compared to supply of 750,000 MTPA and the balance shortfall is being met by imports.

Despite the recessionary trend in the international markets, there is a high demand of MEG in India due to increased capacity of polyester and low input prices. The viability of manufacture MEG from molasses would brighten with the improvement in sugarcane acreage and also turnaround in economic scenario will enhance the demand of petrochemical products resulting in firming up of Crude, Ethylene and Glycols prices in the international markets. In Mar 09, when prices of crude oil were ~ US\$42 per barrel, MEG prices were ~US\$ 535 per tone. On account of firming up of crude oil prices to levels of ~US\$ 65 - 70 per barrel, MEG prices are presently hovering ~US\$ 700 per tonne.
- 2) One of the few players catering to MEG products demand:** Demand for MEG products is catered by 2 players in India viz. India Glycol (Capacity of 86,500 MTPA) and Reliance Industries Ltd. RIL has a MEG capacity of 8 lakh MTPA and most of the production is for captive consumption. As a result India Glycol is the leading supplier of MEG products. Additional demand coming from the market would drive growth for IGL
- 3) Ethylene Oxide Derivatives (EODs) to drive growth:** The EO derivative segment comprises of high margin products like Ethoxylates, Glycol Ether & Acetates and Performance Chemicals. Currently this division contributes highest to IGLs revenues which are ~45%. IGL is the leader in this segment with production ~ 65,000 TPA in FY 09. Value added products like Glycol Ether and Acetates produced from Ethylene are used in paints, coating, textile, leather and brake fluids will drive growth in future. The market for the product is expected to grow at a rate of 10%, led by a growth in the auto market and paint industry. IGL has initiated expansion of ethoxylation capacities by 10,000 MTPA in view of increasing the usage of EO Derivatives.
- 4) Exports to drive growth:** IGL has identified exports as a key future growth driver. It has already established itself as a major domestic speciality ethoxylates company. The major export markets are South East Asia, Middle East and China as IGL has logistic advantage in these regions. It exports to more than 30 countries worldwide and the thrust for exports would be to other regions in Europe, USA and Latin America. Exports have achieved a growth of more than 10% in turnover from Rs.2, 103 mn in FY 08 to Rs. 2,320 mn in FY 09 despite severe slowdown in the international markets. IGL hopes to increase its exports in FY 10 by atleast 12,000 MTPA. IGL to strengthen its exports has setup a Subsidiary company in Singapore.
- 5) Rental income to drive other income:** IGL acquired land in Noida in 2005 measuring 13,260 sq mtrs at a price of ~Rs. 64 mn in FY 05. It has transformed the land into a commercial property of 270,000 sq. ft by building 3 towers. IGL has rented out 200,000 sq.ft. We expect the rental income to ~Rs.15 - 18 mn on a monthly basis (FY 10E) and is expected to touch Rs. 18 mn – Rs. 20 mn per month from FY 11 onwards.



GROWTH STRATEGY

- 1) **Shift from commodity to speciality products:** IGL, in its long term strategy, is shifting from commodity to speciality products and would divert EO molecule used for MEG production to more viable EO Derivative/Speciality products which will give it much better returns. Its market share for Ethylene Oxide Derivatives (EODs) and Speciality products have gone up from 40% to 61% over FY 08 sales. Moreover, the nitche markets of BIO MEG in the packaged water, automobile, personal care and cosmetics will generate better margins.
- 2) IGL is promoting its Glycol as BIO/GREEN MEG to potential customers interested in meeting their objective of using environment friendly chemicals made from natural renewable resources. IGL is hopeful to convert this concept into a good business opportunity in the coming years. Niche markets of BIO MEG in packaged water, automobile, personal care and cosmetics would give IGL better margins.
- 3) **Focus on Ennature bio pharma division:** IGL has setup a 100% Export Oriented undertaking (100% EOU). For this purpose it has acquired 47 acres of land on lease from Uttarakhand government, where it is growing a wide variety of medicinal plants. It has got a stronghold in raw material procurement at the region is extremely favourable for the agro climatic zone for medicinal herbs, fruits and vegetable cultivation. It has also setup up a Supercritical Fluid Extraction Facility (SCFE) at Dehradun for developing various Phytopharmaceuticals and Nutraceuticals. Its future thrust is to become supplier of more refined active pharmaceutical ingredients (API) and intermediates to pharmaceutical and natural health product industries. IGL would enjoy better margins in the range of ~35 – 40% on these high value added products. This diversification will provide taxation benefit as the unit is 100% EOU.



INDUSTRY OVERVIEW

Global Scenario

Global MEG production was 17.8mn MT in CY07 and is expected to touch ~21.9mn MT by CY10 (7% CAGR). Middle East/Africa and Far East Asia have been the main production centres accounting for 64% of global production in CY07.

Indian Scenario

MEG in India is mainly consumed by polyester fibres sector (Partially Oriented Yarn (POY)/Polyester Filament Yarn (PFY) and Polyester Staple Fibre (PSF). and is estimated to grow at 10% p.a. Apart from fibres, Polyethylene Terephthalate (PET) resins, polyester films and others viz. anti-freeze and coolants are the key consumers of MEG. On an average ~0.33mt of MEG is required for per mt of POY/PFY and PSF.

The growth drivers are as follows:

- a) Removal of quota restrictions has spurred an increase in capacity utilisation in the textile industry over the last few years
- b) Higher disposable income
- c) Improved lifestyle leading to demand for clothing and lifestyle products

MEG is also utilised in user industries like marine construction materials, automotive & aircraft bodies, luggage, appliances, textiles and packaging. Polyester Films are used in packing & wraps for consumer goods and making tapes for video, audio and computer applications.

The largest manufacturer of POY/PSF/PET in India is the Reliance group followed by Indo Rama, JBF Industries and Garden Mills. There has been substantial increase in polyester manufacturing capacities in India due to major expansion undertaken at Reliance, Indo Rama, JBF and Garden Mills. Consequently, polyester industry is expected to grow at 11% during the FY 2009 – 10. Overall demand of MEG in India is 1,200,000 MTPA as compared to supply of 750,000 MTPA and the balance shortfall is being met by imports. Thus, the domestic demand outlook for MEG is expected to be stable.



FINANCIALS

Consolidated Income Statement – (Rs. in millions)

Particulars	FY 08	FY 09	FY 10E	FY 11E
Sales	13,438	10,213	10,737	12,991
Expenditure				
(Increase)/Decrease in inventory	(133)	(18)	(275)	(262)
Manufacturing and other expenses	10173	10224	9897	11,545
EBITDA	3,398	7	1,115	1,708
Depreciation	681	623	572	585
EBIT	2,717	(616)	543	1,123
Finance Charges	494	656	562	550
Other Income	152	267	500	600
Profit before tax & extraordinary items (EI)	2375	(1005)	481	1,173
Less: Extraordinary items	-	538	(107)*	0
Profit after EI	2,375	(1,543)	588	1,173
Less: Tax	591	(453)	200	401
Net Profit after Tax	1,784	(1090)	388	774
Diluted EPS (Rs.)	64.03	(32.96)	13.92	27.77

*Reported as on Q1FY10



Consolidated Balance Sheet – (Rs. in millions)

Particulars	FY 08	FY 09	FY 10E	FY 11E
LIABILITIES				
Share Capital	279	279	279	279
Reserves and Surplus	4,648	3,443	3,750	4,104
Secured Loans	6,011	9,650	8,500	7,200
Unsecured Loans	559	1,617	1,600	1,500
Net Deferred Tax Liability	853	358	358	358
Minority Interest	7	2	2	2
Total	12,357	15,349	14,489	13,442
ASSETS				
Fixed Assets	11,096	12,363	16,212	16,700
Less: Depreciation	3,600	4,011	4,582	5,162
Net Fixed Assets	7,496	8,352	11,630	11,533
CWIP	1,607	3,849	-	-
Investments	26	27	27	27
Current Assets, Loans & Advances (A)	5,453	5,618	5,454	5,119
Current Liabilities (B)	2,226	2,514	2,621	3,237
Net Current Assets: (A) – (B)	3,227	3,105	2,833	1,882
Foreign Currency Monetary Item Translation Difference	-	16	-	-
Total - ASSETS	12,357	15,349	14,489	13,442



Consolidated Cash Flow Statement – (Rs. in millions)

Particulars	FY 08	FY 09	FY 10E	FY 11E
Operating Cash Flow before Working Capital Changes	3,366	238	1,222	1,708
Net Cash Flow from Operating Activities (A)	1,436	34	828	1,241
Net Cash Flow from Investing Activities (B)	(1,968)	(3,201)	500	112
Net Cash Flow from Financing Activities (C)	569	3,344	(1,572)	(1,526)
Changes in Currency Fluctuation Reserve and Capital Reserve arising on consolidation (D)	99	0.76	-	-
Increase/(Decrease) in cash & cash equivalents during the year	136	178	(244)	(173)
Cash and Cash Equivalents at the beginning of the year	135	271	449	205
Cash and Cash Equivalents at the end of the year	271	449	205	32



RATIO ANALYSIS

Particulars (Rs. In millions)	FY 08	FY 09	FY 10E	FY 11E
EBITDA Margin	25%	0.06%	10%	13%
PAT Margin	13%	(10)%	3%	6%
EV/Sales	0.98	1.36	1.22	0.91
ROE (%)	36%	(29)%	10%	18%
ROCE (%)	18%	(3)%	3%	6%
Debt/Equity	1.33	3.03	2.51	1.99
Fixed Assets Turnover Ratio	1.79	1.22	0.92	1.13
Inventory days	67	96	100	90
Debtors days	22	28	24	22
Creditors days	105	67	70	68



INVESTMENT RATIONALE

Positive trend in MEG Prices to improve profitability:

In FY 09, IGL was forced to regulate its Glycol production as it was not economic viable in the wake of global meltdown in the overall industry. As a result IGL had produced 66,324 MT of Glycols in FY 09 compared to 135,360 MT in FY 08.

Dec 08 and Mar 09 Quarters witnessed lower crude prices on account of slowdown in the economy. With global revival, industrial activity is picking up leading to increased demand for crude oil resulting into spike in crude oil prices from US\$42 per barrel to US\$ 65 per barrel in June 2009 resulting into higher MEG prices. Currently crude prices have spiked up to US\$ 75 per barrel and MEG prices are hovering ~US\$ 700 per tone. On account of these factors, it is expected that IGL will increase the production of Mono Ethylene Glycol which will result in higher realizations.

Quarter	Sales (Standalone) (Rs. in mn)	Net profit Standalone (Rs. in mn)	MEG Prices (US\$ per tone)	Crude Oil Prices (per barrel)
Jun 09	2,334	6.20	538	65
Mar 09	1,778	(227)	535	42
Dec 08	2,021	(709)	555	66
Sept 08	3,486	195*	963	120

*Prior to foreign exchange loss of Rs. 300 mn as on 30th Sept 08

With the worst behind us, we anticipate gradual improvement in the global economic scenario and some signs were already evident in the last quarter. The recent crash in dollar and subsequent appreciation of rupee do not warrant for currency losses on payment of interest and repayment of external borrowings.

Crude prices have firmed from the lows of US\$38/bl. to US\$75/bl., although the recent rise is partly attributed to dollar depreciation the overall oil consumption from Q3FY10 is on an upsurge, indicating further firming of oil prices. We have accordingly prepared our MEG estimates assuming that crude will remain stable ~ \$75/bl in FY10 and ~ \$85/bl in FY11.

Its subsidiary Shakumbari Sugar & Allied Industries has already completed first phase of its expansion and is now in its second phase, wherein its proposed 2000TCD increase in sugar manufacturing capacity and six fold increase from 40KLPD to 240KLPD for making ethanol from molasses and subsequent increase in co-gen from 11.4MW to 25.5MW will not only stage a turnaround in FY11 but also make IGL less dependant on external purchase of molasses.



INVESTMENT RATIONALE

IGL has now developed its 270,000 sq.ft. property at NOIDA and is presently earning rentals of ~Rs.15mn – 18mn per month in FY10. We expect the income from rentals to increase to ~ Rs.24 mn per month in FY11. This rental income will directly translate into bottom line (net of tax) in the coming quarters.

Working Capital performance of the company is likely to improve in the coming years on account of favorable Debtors and Creditors Cycle.

Q1FY10 signaling a turnaround in core business...

Q1FY10 sales have registered an increase of 39% (qoq) from Rs.1679mn (Q1FY09) to Rs.2334mn due to improvement in avg. quarterly MEG realizations from US\$539/tn to US\$ 676/tn. As a result the Q1FY10 loss before exceptional items of Rs.107 mn was lower at Rs.98mn as against (-) Rs.858mn for Q4 FY09.

The interest liability has come down by Rs.20 mn from Rs. 161.50 mn (Q4FY09) to Rs.141.90 mn (Q1FY10).

The above data together with firming up of MEG and EOD prices indicate better days in the coming quarters.

VALUATION

We do not expect an immediate spectacular rise in crude and MEG prices from the existing levels, however there will be gradual improvement from the present levels in FY10 and with the demand for industrial products likely to firm up in FY11 prices of MEG and EOD's will rule at much higher levels. We believe that the present stock price does not do justice to the company's inherent strength as it is quoted at a paltry P/BV of 0.85x (FY 09) and 0.72x (FY11E). This stock needs a rerating and based on projected EPS of Rs. 13.92 (FY 10E) and Rs.28 (FY 11E), we consider it appropriate to assign a P/E 6.5x FY11E earnings, with a target price of Rs. 182/- within a 12-15 months horizon.



arm research

outperform

Disclaimer

This document is not for public distribution and has been furnished to you solely for your information and must not be reproduced or redistributed to any other person. Persons into whose possession this document may come are required to observe these restrictions. This material is for the personal information of the authorized recipient, and we are not soliciting any action based upon it. This report is not to be construed as an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It is for the general information of clients and Associates of arm research. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. We have reviewed the report, and in so far as it includes current or historical information, it is believed to be reliable though its accuracy or completeness cannot be guaranteed. Neither arm research, nor any person connected with it, accepts any liability arising from the use of this document. The recipients of this material should rely on their own investigations and take their own professional advice. Price and value of the investments referred to in this material may go up or down. Past performance is not a guide for future performance. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. Reports based on technical analysis centers on studying charts of a stock's price movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals. Opinions expressed are our current opinions as of the date appearing on this material only. While we endeavor to update on a reasonable basis the information discussed in this material, there may be regulatory, compliance, or other reasons that prevent us from doing so. Prospective investors and others are cautioned that any forward-looking statements are not predictions and may be subject to change without notice. Our proprietary trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein. We and our affiliates, officers, directors, and employees may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) or have other potential conflict of interest with respect to any recommendation and related information and opinions. The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report. No part of this material may be duplicated in any form and/or redistributed without arm research's prior written consent.