17 December, 2007

Key Data	(INR)
CMP	373.45
Target Price	444
Key Data	
Bloomberg Code	TTCH IN
Reuters Code	TTCH.BO
BSE Code	500770
NSE Code	TATACHEM
Face Value (INR)	10.00
Market Cap. (INR mn.)	80330.08
52 Week High (INR)	398.00
52 Week Low (INR)	187.05
Avg. Daily Volume (6m)	24723505.00
F&0	
Market Lot	1350.00
High Price (Rs.)	389.30
Low Price (Rs.)	365.50
Turnover (Rs. in mn)	406.32

Shareholding		%			
Promoter goup		31.55			
Mutual Fund/UTI	Mutual Fund/UTI				
Insurance Compa		21.12			
FII		6.02			
Others		31.95			
Total		100.00			
Rs Mn	FY07	FY08E	FY09E		

Revenues (Rs. mn)	58096	61225.2	72664.3
Sales Growth (%)	44.2	5.4	18.7
Operating Profits	10259.7	10163.5	12808.7
OPM (%)	17.7	16.6	17.6
PAT	5273.6	5816.13	7607.0
EPS (Rs.)	24.5	26.2	34.2

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## Tata Chemicals Ltd.

## Introduction:

Promoted in 1939, Tata Chemicals Ltd. (TCL) is engaged in the manufacture of fertilizers and inorganic chemicals. Fertilizer segment comprises Urea, DAP, NPK and MOP and inorganic chemicals segment comprises soda ash, sodium bicarbonate, cement, salt and STPP. Both these segments are in the growth phase. The net sales is expected to grow at a CAGR of 11% and PAT at a CAGR of 17% in the next two years.

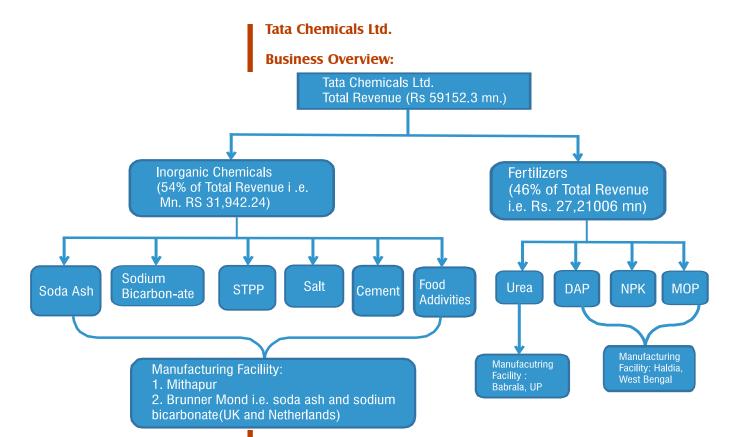
## **Investment Rationale:**

- The Company's competitive advantage stems from its inorganic segment, mainly soda ash business. The domestic demand is expected to grow at a CAGR of 6% to 3.037 mn. tonnes in 2010 from 2.546 mn. tonnes in 2007 led by increase in consumption from glass industry and soap & detergent industry. In world market, China is one of the countries that drive the global soda ash industry. With no significant capacity addition, China would be net importer of soda ash for next 2 years. This leaves enough room for Indian players to capture world demand for soda ash.
- With a view to capitalise on the growth opportunity in the inorganic segment the Company is expanding its domestic soda ash manufacturing capacity to 1.2 mtpa. Along with this, it is also undertaking capacity expansion for cement and salt. Thus the Company's revenue from domestic inorganic business is expected to increase due to better realization from the soda ash business coupled with increase in the capacity.
- With a view to diversify geographically, the company acquired Brunner Mond Group Ltd (BGML) which is the 5th largest producer of soda ash in the world. With this acquisition the company also got access to low cost natural soda ash through Magadi Soda Ash Company, which is a 100% subsidiary of BGML.
- TCL is also in the process of de bottlenecking its Urea plant at Babrala, where the Urea manufacturing capacity would increase from 0.86 mtpa to 1.2 mtpa. This will enable the Company to pick up further market share in Urea market. Further, as the consumption ratio between Urea to NPK/DAP fertilizers is changing, TCL J.V. with IMACID would provide further advantage to the Company over other players, through regular supply of phosphoric acid, one of the main raw materials for manufacturing complex fertilizers.
- TCL's foray into new businesses like Khet Se and Bio-fuel, would help the Company to exploit new opportunities arising from the growing Retail Segment and need for alternative energy segment respectively.

## Valuations and Recommendations:

Tata Chemicals Ltd has reported consolidated EPS of Rs.24.51 for FY07. The company's Earnings Per Share (EPS) will increase from Rs.24.51 in FY07 to Rs. 26.15 and Rs. 34.20 in FY08E and FY09E respectively.. At CMP of Rs. 373.45 the stock is trading at 14.28x FY08E and 10.92xFY09E earnings per share . We initiate coverage on Tata Chemicals Ltd with a BUY recommendation and price-objective of Rs.444 (implying a forward P/E multiple of 13x) on account of growth from its Inorganic and fertilizer segment.





## **INORGANIC CHEMICALS**

## SODA ASH

Soda Ash (commercial name Sodium Carbonate) forms an important part of the Chlor Alkali segment of the Indian inorganic chemical industry. It is in a solid form at normal temperature and pressure and is broadly classified into Light Soda Ash (LSA) and Dense Soda Ash (DSA) based on density. It is a high volume, low value product and finds application in production of detergents (LSA), glass (DSA), chemicals (LSA), sodium silicate, pulp & paper and water treatment.

## Domestic Soda Ash Industry

## Technology

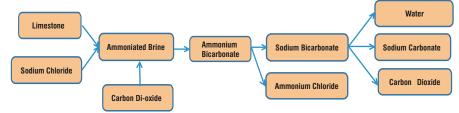
Soda Ash can be manufactured by two processes:

- 1. Natural Process
- 2. Synthetic Process

## Through synthetic process soda ash can be manufactured by 3 processes:

- a) Standard Solvay Process
- b) Modified Solvay Process
- c) Dry Liming Process

Tata Chemical Ltd. uses standard Solvay process which is:



1 tonne of

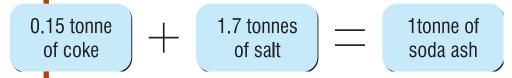
Limestone

**Increase in input price create** 

pressure on margins

## **Raw Material**

In India soda ash is manufactured by synthetic method. Out of the total cost, around 80% constitutes raw material. The raw materials used in manufacturing of soda ash are limestone, salt and coke. The conversion is as follows:



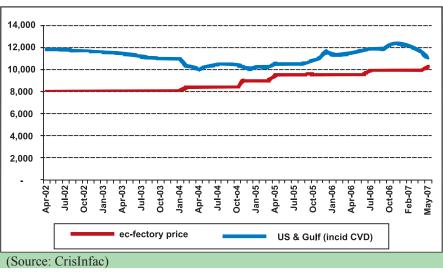
The coke which constitutes around 45% of the total raw material cost is expected to increase by 6-8%. Salt also has a high demand from both industrial and edible segments, which may result in the increase in prices. Since soda ash business is a power consuming business, Indian players faces disadvantages:

- Around 90% of soda ash manufacturers are located in Gujarat, which has the high cost of power as compared to other states.
- With increase in coal prices and shortage in supply, may lead to increase in cost in future.

The above increase in cost will create pressures on operating margins.

## **Margins & Pricing**

Indian players in soda ash market are the price takers. Prices are fixed based on the import parity. Increasing raw material prices has led to increase in prices of soda ash in last two years.



Domestic prices are closely linked to the international prices. With international prices increasing, domestic prices are also witnessing an upsurge in their prices. The Government has reduced the custom duty from 15% to 12.5% thereby reducing the landed cost of soda ash, but countervailing duty of 4% was imposed, thus offsetting the decline. Any further reduction in such duty will reduce the landed cost thereby reducing the price and squeezing the margins. With Chinese manufacturers reducing the supply of soda ash for next two years, the short-term prices are expected to rise.

# **Soda ash price to increase** in short term

**Domestic Consumption** 

shifting from soap &

detergent to glass

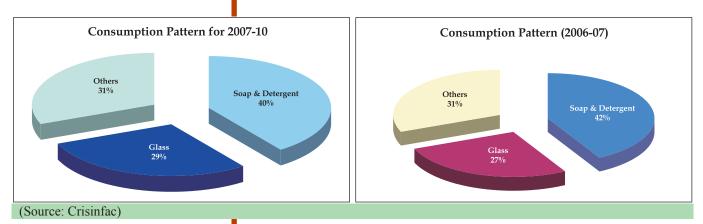
Future Demand Supply Scenario				
('000 tonnes)	2006-07E	2007-08P	2008-09P	2009-10P
Opening Stock	39.0	39.0	39.0	39.0
Production	2226.0	2436.7	2548.3	2666.8
Imports	320.0	326.4	352.5	370.1
Total Supply	2585.0	2802.1	2939.8	3075.9
Domestic Consumption	2366.0	2475.1	2589.8	2710.4
Exports	180.0	288.0	311.0	326.6
Total Demand	2546.0	2763.1	2900.8	3037.0
(Surplus)/Deficit	(39.0)	(39.0)	(39.0)	(38.9)
Source: CrisInfac				

In future the domestic demand is expected to grow at a CAGR of 6 % to 3.037 mt in 2010 from 2.546 mt in 2007. The growth is due to increase in consumption from glass industry and soap & detergent industry. This growth in glass segment is expected due to growth in construction as well as automobile sector which constitutes around 55% and 22% of total glass consumed in the industry. Based on above growth rate from both the industry, the consumption mix of soda ash is expected to move in the favor of glass, thereby boosting demand for dense soda ash.

On the supply side, the increase in capacity from all the players and imports would make the supply to grow at 5.9 % CAGR from 2.585 mt in 2007 to 3.076 mt in 2010.

## **Consumption Pattern:**

Soap & Detergent and Glass are the main drivers for the soda ash industry. On an average one tonne of detergent consumes around 250 kgs of soda ash and in glass, dense soda ash constitutes 12-15% by weight.



## **EXPORT -IMPORT SCENARIO:**

## **Export Scenario:**

China (33% of total world production), US (26% of total production) and Europe (27% of total production) produces nearly 86% of the total world soda ash. These jointly consume 71% of the world total soda ash production (China-30%, US-15% and Europe-26%). Currently global soda ash market is witnessing a marginal growth of 3-4% p.a. No significant capacity addition happening in China for next two years leaves enough room for Indian players to capture world demand for soda ash.

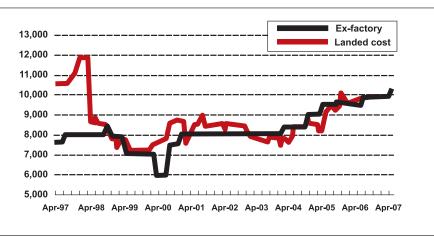


## **Import Scenario:**

With the reduction in custom duty and removal of anti-dumping duty, the landed prices of soda ash have become lower than domestic ex-factory cost. Such price difference has invited more imports of soda ash in India. Going ahead in 2009-10E. India's dependence on imports for soda ash is expected to be around 13.7% of its total consumption (source: CrisInfac). The major reasons for increasing dependence on import are:

- Reduction in Import Duties
- Kenya's increasing exports to India. With Kenya going on with its capacity expansion plans, its exports to India would simultaneously increase.
- Around 57% of total consumption is reported from regions other than the west, which makes the industry vulnerable to imports coming from Europe, China and Kenya due to comparatively lower cost of transportation.

Table 3: Domestic freight		
Mode	Freight (Rs/tonne)	
Sea	2,000	
Rail	2,200-2,400	
Road 3,000		
(Source: CrisInfac)		



#### (Source: CrisInfac)

## TCL Inorganic Business

TCL is engaged in the manufacturing of soda ash, sodium bicarbonate, cement, salt and sodium tripolyphosphate (STPP).

#### Soda Ash:

TCL is the largest manufacturer of soda ash in India and has the 3rd largest manufacturing capacity in the world after the acquisition of Brunner Mond Group Ltd. (BMGL), UK.

## **Domestic Operations:**

The Company has its soda ash manufacturing plant at Mithapur, Gujarat. The plant uses synthetic method for manufacturing soda ash i.e. Solvay Process. The Company is currently modernizing its Mithapur plant where, soda ash plant production capacity would increase from 0.9 mn TPA to 1.2 mn. TPA. Further, this modernization would

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# Largest manufacturer of soda ash in India



also include cement and salt plant. On the domestic front TCL is the market leader in soda ash (32%) and it sells most of its soda ash in Northern Belt. TCL manufactures Light Soda Ash (60% of the domestic sales) and dense soda ash (40% of domestic soda ash). The company also exports around 15% of its production to countries Bangladesh, South – East Asia and Middle East.

## **International Operations**

#### **Brunner Mond Group Ltd. (BMGL)**

Brunner Mond Group Ltd. was acquired by TCL at a cost Rs. 8000 mn. In order to fund this acquisition, the Company raised FCCB worth \$100mn, whereas the remaining amount was funded through internal accruals. The Company is involved in the manufacture of soda ash and other inorganic chemicals.

## About Brunner Mond Group Ltd.

Brunner Mond is the 5th largest producer and supplier of soda ash and associated alkaline products in world. The company is headquartered in Northwick, Cheshire and also has manufacturing plants in Delfzijl, Netherlands and Lake Magadi in Kenya. The Company also operates a transportation terminal in Durban, South Africa.

### **Product Profile:**

Brunner Mond's products are essential for the manufacture of wide range of staple and specialist goods. With more than 1500 customers worldwide to diverse industry like glass, bath additive products, sugar extraction and haemodialysis treatments.

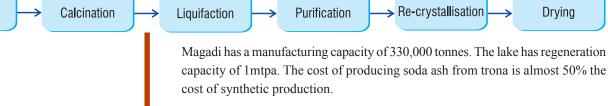
1. **Soda Ash:** BMGL has a manufacturing capacity of around 1.6 mn. tonnes of soda ash. Of all the three locations, the plants at UK and Netherland's manufacture soda ash by synthetic process, whereas the plant at Magadi, Kenya manufactures soda ash by natural process.

#### The Magadi Soda Ash Company (MSC):

One of the major reasons the company went for the BMGL acquisition was natural soda ash reserves at Magadi, Kenya.

#### **MSC Profile:**

MSC a fully owned subsidiary of BMGL is one of the largest natural soda ash manufacturing company in the world. It uses trona for manufacturing of soda ash. The process for manufacturing natural soda ash can be explained as below:



TCL is also under the process of acquiring another natural soda ash manufacturing capacity at Tanzania on which it would be spending additional Rs. 5000 -6000 mn. It is awaiting green signal from the government.

- 2. Sodium Bicarbonate: BMGL is the market leader in this business in UK. On an average BMGL manufactures 75,000 tonnes and supplies to around 60 countries. TCL is increasing manufacturing capacity to 125,000 mtpa.
- 3. Calcium Chloride Liquor: This is obtained as one of the products during the manufacture of soda ash using the ammonia soda process which is used in the formulation of oil well drilling and completion fluids in the oil exploration industry

**E E** BMGL has huge natural soda ash reserves

Mine Ore

Market leader in sodium bicarbonate in UK

**47% market share in edible salt market** 

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and in the production of alginates, with other customers including those in the refrigerants, food, pharmaceuticals and chemicals industries.

## Sodium Bicarbonate:

After the merger of Hind Lever Chemicals Ltd., the company also started production of sodium bicarbonate. TCL's sodium bicarbonate is used in obtaining wool& silk fabric and leather tanning. As on FY07, this product contributed 1% in total consolidated revenue and 2% from the total revenue in inorganic chemicals.

## **Cement Business:**

During the production process of the soda ash, lime and calcium leave effluent slurry as waste and for its utilization, the company has setup a cement plant. TCL markets its cement under the brand name "Shudh" cement mostly in Gujarat. Pegged by the increase in the soda ash capacity, the Company is also increasing its cement capacity to 600,000 tonnes. The segment contributes around 5.92% of total consolidated revenue.

## Salt:

TCL is the market leader with 47% markets share in the edible salt. Recently the company has also launched a new refined salt brand, "I-Shakti" in the lower price band in the Southern and Eastern region which has received a good response. Other than this, the Company's packaged salt, recognized as "India Most trusted brand", is used in more than 40 million households in India. In October 2007, TCL launched a new brand, Tata Salt Lite, priced at Rs.18/kg, targeted at consumers in, metro, urban, and semi-urban areas. TCL is expanding its salt facility to 600,000 tonnes. This business accounts for 10.12% of total consolidated revenue and expected to remain at similar level for next two years.

## **Expansion Plans:**

	Existing	Proposed Expansion	Total	
	(mn. tonnes)	(mn. tonnes)	(mn. tonnes)	
Domestic Capacity				
Soda Ash	0.9	0.3	1.2	
Cement	0.5	0.1	0.6	
Salt	0.475	0.125	0.6	
Oversea Capacity				
Soda Ash - Magadi	0.33	0.37	0.7	
Sodium Bicarbonate	0.125	0.025	0.15	
(Source: Company & ACMIIL Research)				

## **Competitive Advantage:**

- Salt Pans: TCL has huge salt pans in comparison to its competitors, which helps the company to reduce its cost and avoids unnecessary delays in terms of availability of raw material.
- Scale of Operation: The Company has the largest manufacturing facility in India, which helps them achieve economies of scale.

Better connectivity to plant

Player	Capacity (million tonnes)	% of total capacity		
Tata Chemicals (standalone)	0.90	32%		
Nirma	0.65	23%		
GHCL	0.6	22%		
Saurashtra Chemicals*	0.37	13%		
Tuticorin Alkalies	0.16	6%		
DCW	0.10	4%		
Total	2.78	100%		
*Now acquired by Nirma				
Source: Capitaline & ACMIIL Research				

- TCL's soda ash plant in Mithapur is located adjacent to a state highway and has its own railway siding and is only 10 kms from the Okha port, having two jetties which are capable of handling ships with a capacity of 40,000 DWT. TCL's infrastructure advantage enables it to meet the soda ash demands of the Indian as well as export markets.
- With acquisition of BMGL, the Company got access to European, Middle East and other Asian markets besides having advantage of BMGL's existing 1500 customers that it currently serves.
- BMGL is the market leader in sodium bicarbonate business in UK.
- The low cost natural soda ash at Magadi, helps the Company to control its margins, incase the prices of raw material increase and the price remains stable. Alongside the company plans to import around 40% of the production from Kenya, which will also enable it capturing the domestic market.

## FERTILIZER INDUSTRY:

Fertilizer can be categorized as organic, inorganic and synthetic. Fertilizers are required for the growth of the plants. Fertilizers are primarily classified on the basis of their nutrient contents. like Nitrogen (N), Phosphorous (P) and Potassium (K). Fertilizers are expressed in terms of their N: P: K ratio i.e. content of Nitrogen, Phosphorous and Potassium in the given fertilizer.

## The purpose & source of NPK is given below:

The purpose & source of NPK				
Nutrition	Purpose	Source (Fertilizer used for obtaining the nutrient)		
Nitrogen (N)	To impart color to plants, which in turn helps plant for their vegetative growth	Urea & Calcium Ammonium Nitrate (CAN)		
Phosphorous (P)	For strengthening the roots of the plant	Single Super Phosphate (SSP) and Dia-ammonium phosphate (DAP)		
Potassium (K)	Provides plant with resistance, to protect them from drought and diseases	Muriate of Potash (MOP)		
	<ul><li>Factors determining demand</li><li>Irrigation &amp; Rainfall</li></ul>	l for fertilizers:		

- Penetration of high yielding variety seeds
- Crop yield
- Agricultural Credit
- Fertilizers prices.

## "

## Increase in P & K ratio creates a demand for NPK fertilizers

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Industry (	Industry Outlook: Demand Scenario					
Year	N	P205	K20	Total	Ratio	Ratio
					N: P: K	N: P
2006-07	13.79	5.75	2.52	22.05	5.5:2.3:1	2.4:1
2007-08	14.39	6.08	2.66	23.13	5.4:2.3:1	2.4:1
2008-09	14.9	6.38	2.81	24.09	5.4:2.3:1	2.3:1
2009-10	15.39	6.68	2.97	25.04	5.2:2.3:1	2.3:2
2010-11	15.85	6.98	3.13	25.96	5.1:2.2:1	2.3:3
2011-12	16.31	7.29	3.3	26.9	4.9:2.2:1	2.3:4
CAGR	3.41%	4.86%	5.54%	4.06%		
(Source : W	(Source : Working Group Committee for 11th Five Year Plan)					

Mn. tonnes

Increasing Nutrient demand means higher demand for fertilizers					
Year	Urea	DAP	Complex Fertilizers	SSP	MOP
2006-07	24.31	7.5	7.36	2.88	2.85
2007-08	25.36	7.93	7.7	3.8	3.02
2008-09	26.28	8.32	8.1	3.99	3.18
2009-10	27.14	8.72	8.5	4.18	3.36
2010-11	27.95	9.11	8.9	4.36	3.55
2011-12	28.76	9.51	9.33	4.56	3.74
CAGR	3.40%	4.90%	4.90%	9.70%	5.60%
(Source: Working Group committee for 11th Five year Plan)					

(Source: Working Group committee for 11th Five year Plan)

Demand of fertilizers in India is depicted in the above table. With increasing demand for nutrients consumption, pattern of nutrients consumption is also expected to change. In order to maintain balanced pattern of consumption, use of P & K based nutrients (DAP, complex fertilizers, SSP, MOP) fertilizer is expected to increase.

## **Cost Structure:**

Other than basic raw material, feedstock is the other important input required for the manufacture of fertilizers. The types of feed stocks /raw materials:

Product	Feedstock/raw material
Urea	Natural Gas/Naphtha/Furnace Oil (FO)/Low sulphur Heavy Sulphur (LSHS) (Feedstock)
DAP	Rock Phosphate/Phosphoric Acid (Raw Material)

Break up of usage of feedstock for manufacture of Urea (in that order)		
Feedstock	% Share	
Gas	66.08	
Naphtha	23.07	
FO/LSHS	10.85	
Total	100	

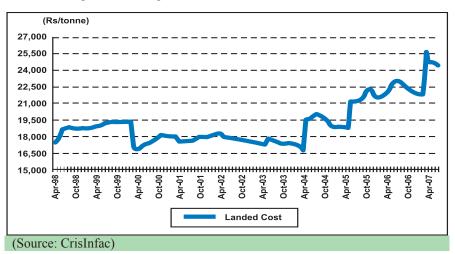
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## Feedstock choice accounts for major cost of production

Break up of usage of feedstock for manufacture of DAP				
Feedstock	(%)			
Phosphoric Acid (External supply)	45			
Indigenous Phosphoric Acid	55			

Feedstock/Raw material costs around 60% of total cost of production for any fertilizer. India sources Phosphoric acid mainly from Morocco, South Africa, Senegal, Jordan, Tunisia, and the USA. Import of phosphoric acid has been decanalised since 1992. The Fertilizer Association of India (FAI) imported this commodity for all users. Since 2004, imports of Phosphoric acid are arranged by group of major Phosphoric acid consumers under the guidance of Phosphoric Acid consumer group.

The historical prices of Phosphoric Acid are as under.



Both FOB and landed cost of Phosphoric acid has been increasing from the last 2 years mainly due to the tight demand-supply situation in the global markets.

## Fertilizers: Import scenario in India

India's major Fertilizer import requirements are met from countries like Russia & Ukraine, East Europe and Central Asia and Middle East countries. Import Prices of various fertilizers in India:

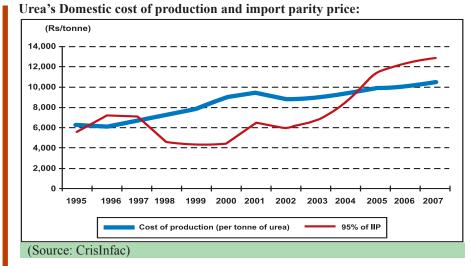
\$/tonne	Urea		DAP		DAP		M	OP
	Min	Max	Min	Max	Min	Max		
2002	81	120	143	178	87	129		
2003	98	175	147	212	87	129		
2004	112	275	200	265	80	160		
2005	168	290	220	270	122	195		
2006	190	270	250	295	145	195		
2007	248	385	269	440	-	-		
Source: Working Group Committee for 11th Five Year Plan								

Source: Working Group Committee for 11th Five Year Plan

We observe that fertilizer prices are continuously increasing worldwide due to tight demand/supply scenario. Imports are becoming expensive every year. Though import prices are increasing, the domestic cost of production of Urea and DAP remain fairly lower than import prices.





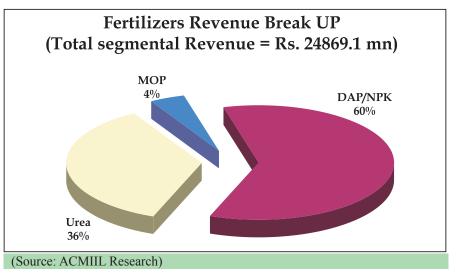


As domestic Urea prices are quite lower than Import prices, hence Indian Government insists on increased domestic production rather than imports. Government is planning to encourage more investment in Urea production.

As far as DAP prices are concerned, domestic prices are correlated with import prices and thus we see no major difference between domestic and international prices for DAP.

## TCL FERTILIZER BUSINESS:

Tata chemicals Ltd. is engaged in manufacturing Nitrogen and phosphate based fertilizers. In Nitrogen based fertilizer it manufactures Urea and in phosphate based fertilizers it manufactures Di-Ammonium Phosphate, Single Super Phosphate and NPK fertilizers.



**Urea:** The Company has an installed capacity of 0.865 mn. tonnes of Urea manufacturing at its Babrala Plant, Uttar Pradesh. The company accounts for 4% of total Urea production in India. More than 60% of Urea production in India is produced by top six companies, which include names like IFFCO and National Fertilizers, contributing 30% of total Urea production. The company is categorized into Group II category i.e. Gas (post 1992) under New Pricing Scheme (NPS). This category means using only gas as feedstock.

**G** DAP a major contributor in TCL's revenue

## Increase in production capacity for Urea



## "

Ensuring regular supply of phosphoric acid for phosphatic fertilizers

"

**Expansion in Urea business:** Based on the NPS III, TCL has started debottlenecking its Babrala plant, where it would increase its Urea manufacturing capacity from 0.86 mtpa to 1.2 mtpa. The cost of debottlenecking is Rs. 1500 mn. This plant would be operational by second quarter of FY09. Besides this, the company has also launched a cost cutting campaign at the plant in order to bring down and control the energy cost.

## **Phosphatic Fertilizer:**

**DAP:** Out of the total phosphatic fertilizers consumed, 60% of it is consumed in the form of DAP, 31% by way of other NPK complex fertilizers and remaining in form of Single Super Phosphate (SSP). TCL has its DAP, SSP and NPK based fertilizer manufacturing capacity at its Haldia plant, West Bengal. The plant has 0.67 mn tonnes DAP/NPK manufacturing capacity and 0.17 mn tpa capacity for manufacturing SSP. TCL currently serves 4% of total DAP consumption as on 2005-06. IFFCO is the major producer of DAP contributing nearly 24% of country's total production of DAP.

## Single Sulphur Phosphate (SSP):

SSP contributes 2% in the total revenue from the fertilizer segment. The revenue from SSP has been growing at a CAGR of 4% from Rs. 491.7 mn in 2003-04 to Rs. 551.7 mn. in 2006-07. The company manufactures approximately 6% of the total SSP produced in the country.

TCL became equal partner in a Moroccan Company, IMACID (Indo Maroc Phosphore S.A. (IMACID). In accordance with this J.V. the company will get continuous supply of phosphoric acid which is the primary raw material to manufacture NPK/DAP fertilizer at Haldia. Besides, this venture also gives TCL an opportunity to enter into other collaboration and initiatives.

## Tata Kisan Sansar (TKS):

Earlier known as Tata Kisan Kendra, is a Single Window solution provided by the company for all the services that would be needed by the farmers. TSK is effectively operational in Northern side of the country particularly in the state of Uttar Pradesh, Haryana and Punjab. Currently, 40 Tata Krishi Vikas Kendras (TKVK)and about 800 TKS are in operation, catering to the needs of the 14,000 villages that fall in the command area.

## TCL Benefits from TKS:

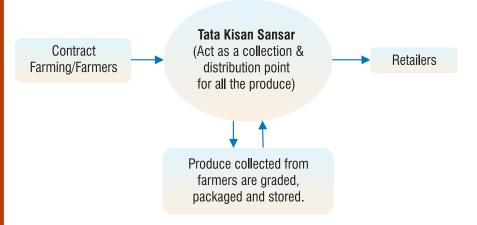
• Wide excess in rural gives company competitive advantage over its peer companies. TKS has a very well defined logistic, thus helping the company reduce its freight cost.

Using the wide network of TKS, TCL is able to start new business initiatives like Khet Se (fresh produce business), and biofuel business



## **New Ventures:**

 Khet Se Agriproduce India Pvt. Ltd.: TCL entered into 50:50 JV with Total Produce Plc., Ireland. The main aim of starting this business is to start a distribution network. TCL would be leveraging on Tata Kisan Sansar (TKS) network system. The business model is as follows.



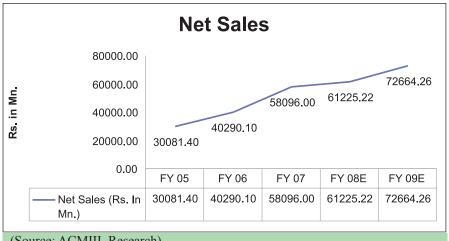
The company would be setting up state-of-the-art distribution chains for fresh fruits and vegetables across India. As on date, the company has set aside Rs. 500 mn. under this investment and the venture is coming up with one center at Malerkotla in Ludhiana and one at West Bengal.

## **Bio Fuel Business:**

With the ever increasing crude oil price and seeing the opportunity in the world of alternative fuels, TCL entered into Bio-fuel i.e. bio-diesel and bio-ethanol production. Currently the company has started with a pilot project at Maharashtra, with an order of 50 kl/day of bio-ethanol from Praj Industries.

## **Financial Analysis**

Total Revenue/Sales:



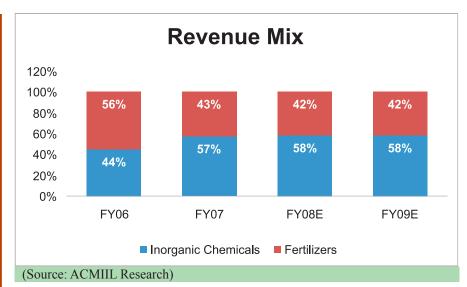
### (Source: ACMIIL Research)

TCL consolidated sales revenue has been growing at a 39% CAGR from Rs. 30,081.4 mn. in 2005 to Rs. 58,096 mn. in 2007. The sales saw a steep increase in 2006 due to acquisition of Brunner Mond Group Ltd. On standalone basis fertilizer business is the major contributor in the total revenue. But the situation is quite different on consolidated basis. The company will see its major revenue coming in from Inorganic business especially soda ash.

## "

Inorganic Business, soda ash business would become the main bread winner for the company

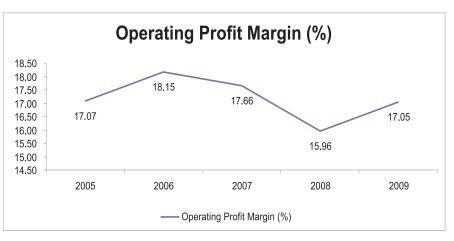




In future, we expect that the situation to continue. Inorganic business, soda ash business in particular, would become the main breadwinners for the company. With the increase in the overall capacity of soda ash manufacturing combined with higher realization value would contribute mainly to the growth in the top-line. However the Y-o-Y growth would be flat for next two years, as the company would start its overall operations in the full capacity by 2009-10.

## **Margins:**

TCL's operating profits has been growing at CAGR of 28.45% from Rs.5,211.4 mn in FY04 to Rs. 11,044 mn. in FY07. The major reason for the fall in the margins in FY 08 is the high cost attached to the facility in Europe, which was operating at the margin of 14-15% in FY07. But the company anticipates the margin to increase to 17-18% once the Magadi plant is operational in full capacity by Q2FY09.



## Net Profit:

In past four year the company has been operating at an overall margin of 8%-11%. In past two years the Company's has been earning a margin on standalone basis but the PAT is deteriorating on a consolidated basis.

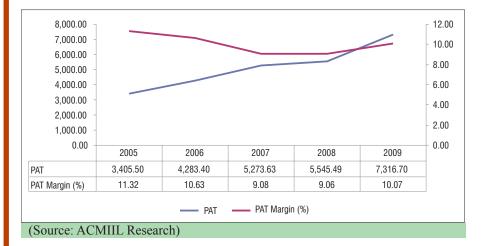
	2006	2007
Standalone PAT Margin (%)	10.03	11.13
BMGL PAT Margin (%)	10.22	3.75
Consolidated Margins (%)	10.29	8.51

"

PAT Margins expected to improve to 9%-10% on account of expanded facilities at foreign and domestic operations



As shown in the above table, the company is doing well on the standalone basis, but the overall margins are affected due to BMGL. The main reason for falling of this margins is high pension liability of BMGL to its employees for European facility i.e. around £7.5 mn p.a. and secondly, technical mishaps at Magadi plant, affecting the overall production as well as the profitability. In future PAT margins are expected to improve and come back to 9%-10%, on account of expanded facility at foreign and domestic operations.



## **Interest Cost:**

There has been a significant increase in the interest cost in FY07 as compared to corresponding previous year. This is due to company's high cost debt raised by its subsidiary in order to funds its capex plans at UK and Magadi. However the overall debt position has reduced on account repayment of domestic loans in FY07. The interest cost for the company remains the same in the next two years, with debt position going down due to conversion of FCCBs into equity in FY08.

## **FCCB Conversion:**

TCL has proposed conversion of FCCBs aggregating to US\$ 38.46 mn. i.e. aggregating to Rs. 1678.78 mn. This conversion has led to equity dilution and increasing the number of shares by 7.27 mn. shares.

#### **Investments:**

Investments	Cost (as on 31/3/07)	% of total	Market Value (as on 31/3/07)
Quoted	Rs. 1593.2 mn.	21%	Rs. 11909.8 mn.
Unquoted	Rs. 6159.4 mn.	79%	

The quoted investment mostly constitutes of investment in group companies. Going forward we assume that the company would keep its investments constant and cash generated would be used to fund the capex as well as repayment of debt.

## **Goodwill:**

Goodwill is as a result of consolidation of BMGL. The goodwill is at present unammortised.

Income Statement					(Rs. in mn)
	FY 05	FY 06	FY 07	FY 08E	FY 09E
Net Sales	30,081.40	40,290.10	58,096.00	61,225.22	72,664.26
Total Expenditure	24,946.70	32,976.70	47,836.27	51061.71983	59855.57797
Operating Profits	5,134.70	7,313.40	10,259.73	10,163.50	12,808.68
Other Income	1,017.40	817.50	977.50	1,045.93	1,262.31
EBDITA	6,152.10	8,130.90	11,237.23	11,209.44	14,070.99
Depreciation	1,377.00	1,840.40	2,738.80	2,965.52	3,320.71
EBIT	4,775.10	6,290.50	8,498.43	8,243.91	10,750.28
Interest	245.70	284.00	823.90	828.79	738.06
PBT	4,529.40	6,006.50	7,674.53	7,415.12	10,012.22
Taxes	1,123.90	1,723.10	2,400.90	2,045.15	2,722.50
Profit After Tax	3,405.50	4,283.40	5,273.63	5,816.13	7,607.03
Growth in sales (%)		33.94	44.19	5.39	18.68
Operating Profits Growth (%)		42.43	40.29	(0.94)	26.03
PAT Growth (%)	54.40%	25.80%	18.60%	10.30%	24.90%
Operating Profit Margin (%)		18.15%	17.66%	16.60%	17.63%
Net Profit Margin (%)	11.32%	10.63%	9.08%	9.50%	10.47%
Source: Company & ACMIIL Research					

Balance Sheet					
	FY05	FY06	FY07	FY08E	FY09E
Share Capital	2,151.60	2,151.60	2,151.60	2,224.34	2,224.34
Reserves and Surplus	17,826.80	20,041.90	23,566.60	28,942.37	34,375.10
Total Shareholders Funds	19,978.40	22,193.50	25,718.20	31,166.71	36,599.44
Total Loan Funds	13,242.20	20,480.00	18,642.00	18,061.88	17,226.06
Net Deferred Tax Liability	3,533.80	2,293.30	2,336.60	2,381.59	2,441.49
Deferred Capital Grant	-	276.20	211.30	211.30	211.30
Total Capital Employed	36,754.40	45,243.00	46,908.10	51,821.49	56,478.30
Gross Block	30,637.00	48,462.40	57,822.60	63,321.36	66,821.36
Less: Accumulated Depreciation	15,555.10	26,257.20	29,558.20	32,523.72	35,844.44
Net Block	15,081.90	22,205.20	28,264.40	30,797.64	30,976.93
Capital Work in Progress	542.00	5,589.00	2,296.10	1,000.00	500.00
Goodwill on consolidation	-	7,074.90	7,632.40	7,632.40	7,632.40
Investments	9,387.40	5,474.80	7,752.60	7,752.60	7,752.60
Net Current Assets	11,726.30	4,829.00	925.60	4,601.84	9,579.37
Misc Expenditure	16.80	70.20	37.00	37.00	37.00
Total Assets	36,754.40	45,243.10	46,908.10	51,821.48	56,478.30
Source: Company & ACMIIL Research					

CASH FLOW STATEMENT					(Rs. mn)	
	2005	2006	2007	2008E	2009E	
Net profit before Tax & Exceptional Items	4,550.00	6,053.40	7,481.30	7,415.12	10,012.22	
Operating Profit Before Working Capital Changes	5,583.70	7,754.30	9,696.30	9,567.32	15,772.89	
Cash Generated From Operations	6,076.60	2,633.40	11,308.50	9,175.24	13,794.20	
Taxes Paid	42.40	(874.90)	(2,144.20)	(2,045.15)	(2,722.50)	
NET CASH FLOW FROM OPERATIONS (A)	6,103.20	1,647.90	9,151.50	7,130.09	10,286.42	
NET CASH FLOW FROM INVESTING ACTIVITIES (B)	(3,101.10)	(7,076.80)	(6,535.60)	(4,202.66)	(3,000.00)	
NET CASH FLOW FROM FINANCING ACTIVITIES (C)	3,787.70	(1,142.00)	(2,299.80)	1,584.16	(3,430.86)	
Net Increase /(Decrease) In cash	6,789.80	(6,570.90)	316.10	4,511.59	3,855.56	
Balance at the beginning of the year	726.90	7,516.70	1,164.70	1,544.60	6,272.09	
Balance at the end of the year	7,516.70	1,164.70	1,544.60	6,272.09	10,343.54	
Source: Company & ACMIIL Research						

Ratios						
	FY 05	FY 06	FY 07	FY 08E	FY 09E	
Operating Profit Margin (%)	17.07	18.15	17.66	16.60	17.63	
EBIT Margin (%)	15.87	15.61	14.63	13.46	14.79	
PAT Margin (%)	11.32	10.63	9.08	9.50	10.47	
RONW (%)	17.05	19.30	20.51	18.66	20.78	
ROCE (%)	12.99	13.90	18.12	16.75	19.97	
EPS (Rs.)	15.83	19.91	24.51	26.15	34.20	
CEPS (Rs.)	22.23	28.46	37.24	39.48	49.13	
BV Per Share (Rs.)	170.82	210.28	218.01	232.97	253.91	
P/E (x)	23.50	18.68	15.18	14.28	10.92	
P/CEPS (x)	16.73	13.07	9.99	9.46	7.60	
P/BV (x)	2.18	1.77	1.71	1.60	1.47	
Debt/Equity (x)	0.66	0.92	0.72	0.58	0.47	
Current Ratio (x)	2.48	1.35	1.05	1.22	1.41	
Quick Ratio (x)	1.86	0.84	0.72	0.90	1.03	
Inventory Turnover (x)	59.29	63.26	39.91	40.00	45.00	
Debtors Turnover (x)	53.44	69.35	60.72	60.72	56.00	
Fixed Asset Turnover (x)	1.99	1.81	2.06	1.99	2.35	
Source: Company & ACMIIL Research						

## **Annexure 1: Government Pricing Policy for Fertilizers**

Snapshot of the pricing mechanism in Urea and DAP.

## Urea (controlled): The pricing structure in this is as given below:

i. Maximum Retail Price (MRP currently Rs. 4830) + Equated Freight + subsidy (cost of production - MRP). In this arrangement the company loses out on the additional freight expense that may be incurred to transport urea at the mandated location.

### Urea (Decontrolled): The pricing structure in this is as given below:

i. Maximum Retail Price (MRP currently Rs. 4830) + (Equated Freight – 100) + subsidy (cost of production - MRP). Again in this arrangement the Company is compelled to sell in the nearby locations due to freight advantage. However, the advantage may get nullified in case the off take is poor in the nearby locations so the company may be required to offload in distant areas wherein they may lose on account of higher than equated freight rates.

### DAP: The pricing structure in this is as given below:

- i. Imported DAP: MRP (Rs. 9530) + Concession (Rs. 6116) + Equated freight.
- ii. Imported (made from imported phosphoric acid): MRP (Rs. 9530) + Concession (Rs. 6852) + Equated freight.
- iii. Indigenous (made from indigenously manufactured phosphoric acid): MRP (Rs. 9530) + Concession (Rs. 6558) + Equated freight.

## **New Pricing Scheme III**

Taking into consideration the significant increase in urea imports, the government is attempting to attract more investment in the sector, which has not seen any capacity addition in the last 5 years.

New pricing scheme III: New pricing scheme Stage-III was to commence from 1.4.2006 after review of

Stage-I and II. The Department of Fertilizers (DOF) constituted a Working Group under the Chairmanship of Dr. Y.K. Alagh for reviewing the effectiveness of Stage-I and II of NPS and for formulating a policy for urea units beyond Stage-II i.e. from 1.4.2006 onwards.

## The draft policy for urea pricing states the following:

a. For Greenfield / Brownfield project:

Confirmed off-take of urea at 95% of the Import Price Parity (IPP). A floor price of Rs 9,800 per metric tonnes is to be provided to protect the investor against any sharp fall in international prices. Fiscal benefits in the form of exemption of customs duty on imported capital goods, exemption of excise duty and income tax holiday for the first ten years of commercial production.

**b.** For Joint Ventures:

Confirmed off-take of urea at 95% of FOB prices. Long-term buy back arrangement for a minimum period of 5 years and a maximum period of 15 years. The contract will be on. Take or pay. Agreement between the parties.

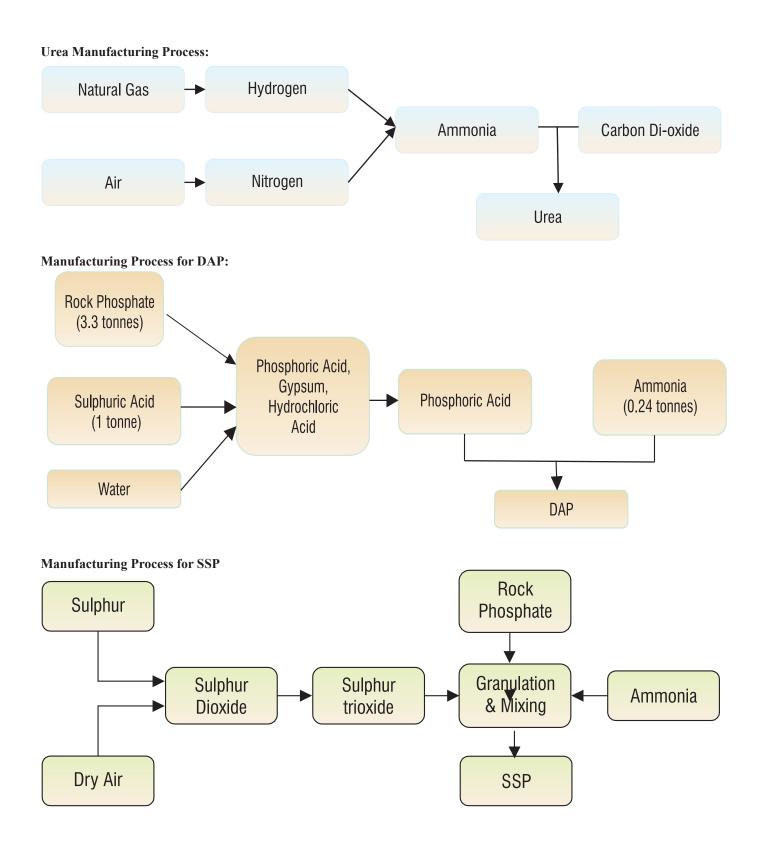
### c. For existing units (de-bottlenecking):

Confirmed off-take of all production beyond 110% of the notionally rated capacity (NRC) in a year. The NRC of the plant will be the actual highest production achieved by the plant during NPS from 2003-04 to 2006-07 for 330 days of production in a year or the assessed capacity, whichever is higher. Price to be equivalent to 90% of the monthly Import Price Parity.

The burden of subsidy can be reduced not only through operational and feedstock efficiency improvements, but also by increasing the retail prices. Even with a marginal increase of about 2% per annum (which would be lower than inflation), the fertilizer subsidy to GDP ratio can come down from the present 0.8% to less than 0.5% in FY2016-17. This is assuming that the global urea demand-supply remains in surplus. This will be enabled by the likely future differential in growth between fertilizer consumption (CAGR of 4%) and GDP (CAGR of around 8%). Considering the newly drafted policy, such policy if executed would provide fertilizer industry a much-needed boost. However, the government has not carried out any pilot project on the proposed mechanism as decided earlier in the Union Budget 2007-08.



## **Annexure 2: Manufacturing Processes**





# Notes:

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