June 11, 2008 BSE Sensex: 15185

### **Chambal Fertilisers** BUY (Rs80) Target price: Rs115 (↑44%)

**GSFC** (Rs161) BUY Target price: Rs263 (↑63%)

Nagarjuna Fertilisers (Rs43) SELL Target price: Rs28 (↓35%)

RCF HOLD (Rs60) Target price: Rs61 (–) INDIA



# **Fertiliser sector**

# Rise of the phoenix

### Reason for report: Initiating coverage

The Indian fertiliser sector is witnessing huge consumption-led growth, fuelled by higher crop realisations, pressure on agri-yield and low per-hectare fertiliser consumption. Owing to a discouraging Government policy, there have been no capacity additions since a decade, leading to heavy dependence on import. Skyrocketing international fertiliser prices, unchanged farm-gate prices and rapidly surging consumption would result in the subsidy bill reaching US\$22bn in FY09, which would lead to inevitable policy changes.

As per the proposed policy, increased capacity via de-bottlenecking would attract Import Parity Price (IPP) as against the current regulated 12% post-tax returns, thereby leading to boost in earnings of fertiliser companies. We do not foresee any greenfield/brownfield investments due to huge capital cost, uncertainty on gas prices and political sensitivity, thereby leading to increased dependence on import. However, skyrocketing urea prices may compel the Government to announce an attractive greenfield policy. We like company-specific stories driven by increased earnings from de-bottlenecking as well as other attractive growth avenues. We initiate coverage with BUY rating on Chambal Fertilisers & Chemicals (Chambal) and Gujarat State Fertiliser Corporation (GSFC), HOLD rating on Rashtriya Chemicals & Fertilizers (RCF) and SELL rating on Nagarjuna Fertiliser & Chemicals (Nagarjuna).

- Policy change inevitable. Subsidy bill, set to swell to US\$22bn in FY09, has pressurised the Government enough to encourage domestic capacity, particularly due to improved feedstock (especially urea) availability in India. The Government is likely to propose IPP for newer capacity with a price band of US\$240-360/te. We expect the policy to be released end-June '08.
- Proposed policy attractive for de-bottlenecking We believe that debottlenecking would boost earnings from existing plants owing to low capital cost, improved energy efficiency and priority for gas allocation.
- Policy unattractive for greenfield, for now...The policy is not likely to attract greenfield/brownfield expansions despite a decent RoE of ~22% (based on current gas prices) on account of uncertainty in gas prices, high political sensitivity and huge ticket size of investment at ~US\$1bn/mtpa.
- Inhowever, skyrocketing urea prices may compel Government to announce an attractive greenfield policy. Pressurised by high international urea prices, the Government may significantly raise the upper band of the price of urea to US\$420/te, which could lead to an astronomical RoE of ~38%, thus compensating more-than-adequately for associated risk. We believe that such an attractive policy may attract greenfield expansion.
- Deregulation unlikely due to low political willingness. We believe that the fertiliser sector would not witness deregulation due to low political willingness, pressure on agri-yield and impact of fertiliser price rise on food production due to price sensitivity of fertiliser demand.
- Attractive valuations. We like company-specific stories driven by earning boost from de-bottlenecking and attractive growth opportunities in other businesses. We initiate coverage with BUY rating on Chambal and GSFC, HOLD rating on RCF and SELL rating on Nagarjuna.

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# **Investment summary**

# Policy changes inevitable

Mounting subsidy bill to US\$22bn in FY09 has created substantial pressure on the Government to change the fertiliser policy to encourage domestic capacity. With increasing availability of natural gas (fertiliser sector allocation set to improve 3x by FY11), which is the key feedstock in urea, promoting domestic capacity is cheaper as against buying from the international market, which would escalate current account deficit. Fertiliser subsidy is likely to swell 4x in two years through FY07-09, given unchanged farm-gate prices, rapidly surging consumption and heavy dependence on import as well as skyrocketing international fertiliser prices. We believe that the proposed Government policy focuses on increasing domestic urea capacity as India lacks raw material reserves such as phosphoric and potash, which are needed for production of other fertilisers.

# Proposed policy attractive for de-bottlenecking

The proposed fertiliser policy is likely to be attractive for the de-bottlenecking of urea plants. The policy proposes 85% of International Parity Prices (IPP) within a band of US\$240-360/te for increased urea capacity through de-bottlenecking. We believe this would be extremely lucrative for existing plants due to low capital cost (~30% of greenfield cost), priority in gas allocation, short project gestation (12-18 months) and improved energy efficiency. De-bottlenecking would also help increase overall life of fertiliser plant as the project would entail replacement of a critical part of the plant.

# Policy unattractive for greenfield, for now...

The proposed fertiliser policy as of now (95% of IPP with a price band of US\$240-360/te) does not look attractive for greenfield/brownfield urea plants in India, despite a decent RoE of ~22% (based on current gas prices) on account of uncertainty in gas prices, high political sensitivity and huge ticket size of investment of ~US\$1bn/mtpa. Currently, KG basin gas prices are fixed at US\$4.2/mmbtu at well head that, we believe, may increase as Reliance Industries (RIL) is reportedly pursuing the Government to raise gas prices for compensating higher project costs of the KG basin. Further, the fertiliser sector is politically sensitive, given that fertiliser products touch the largest vote bank (i.e. farmers).

# ...however, skyrocketing urea prices may compel Government to announce attractive greenfield policy

International urea prices having risen over US\$700/te (in terms of landed cost at domestic port), almost 2x from previous year are likely to compel the Government to raise the unattractive band of US\$240-360/te for a greenfield plant. We believe that if the upper band is increased from US\$360/te to US\$420/te, it may lead to a phenomenon RoE of ~38%, up from ~22%. This could result in the policy becoming very attractive for greenfield, despite associated risks including gas prices. If landed gas costs rise to US\$7/mmbtu fro US\$5.5/mmbtu, the project may fetch RoE of ~30%. Even in the worst case scenario, where landed cost of gas is at US\$9/mmbtu, the RoE would remain attractive at ~19%.

# Deregulation unlikely due to low political willingness

We believe that deregulation would not happen as it would mean that the farmer would have to pay higher prices for fertilisers. Fertiliser prices have not been hiked for almost a decade. The affordability of the farmer has increased multi-fold owing to rising income of farmers; but, we believe that due to low political willingness, price rise of fertilisers or deregulation in the sector is unlikely. Also, the Government focuses on agri-yield to become self sufficient in food, given worsening international food crises due to high diversion of agri output to bio fuel; the Government aims at self sufficiency in food vis-à-vis the fertiliser subsidy issue.

### Attractive valuations

We like company-specific stories driven by earnings boost from de-bottlenecking and other businesses. We are bullish on Chambal on the back of earnings flow from debottlenecking and consequential energy efficiency and the company's phosphoric acid JV IMACID, foray into power generation with capacity of 2,600MW, strong financials further supported by a liquid shipping portfolio and strong management execution. We are bullish on GSFC's foray into the methanol space as well as its healthy caprolactum business. We initiate coverage with HOLD rating on RCF owing to huge option value from land and capital subsidy, although monetisation of these options is uncertain. We initiate coverage on NFCL with SELL rating due to expensive valuations, despite factoring upside from de-bottlenecking and the company's foray into refinery.

# Policy change inevitable

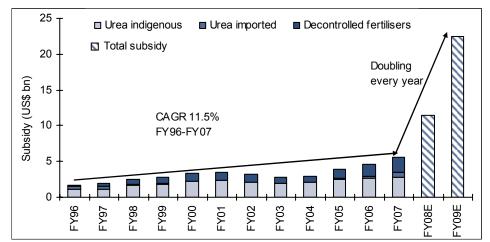
# Swelling subsidy bill

The Retention Price-cum-Subsidy Scheme (RPS), the root of fertiliser subsidy, was introduced in November 1977 by the Marathe Committee in the wake of increase in crude oil prices in the early 1970s when prices of both imported fertilisers as well as fertiliser feedstock increased substantially. As per RPS, the government fixes farm-gate prices and provides subsidy to manufacturers, assuring 12% return on net worth (RoNW) to manufacturers. The scheme has led to significant rise in investment in the fertiliser sector.

The fertiliser policy has continuously aimed at sufficient availability at affordable prices and minimisation of fiscal burden. Total fertiliser subsidy burden in '05-06 was US\$4.6bn. Over a decade (till FY06), subsidy burden has posted ~10.6% CAGR.

However, fast-growing fertiliser demand, surging imports due to no capacity additions, rising international fertiliser & key feed-stock prices have pushed up the subsidy bill astronomically in the past two years, at a CAGR of 100% to US\$22bn in FY09.

### Chart 1: Mounting subsidy burden



Source: Department of Fertilisers (DOF), I-Sec Research

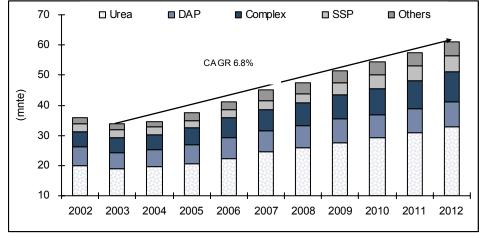
Key reasons for rise in fertiliser subsidy are:

- No increase in farm gate price over the past 6 years
- Fertiliser demand through FY03-07 has posted CAGR of 6.5%
- Rise in international prices of fertiliser owing to bio-fuel boosting crop prices, which supports higher fertiliser consumption
- Increased dependence on import on backdrop of no capacity additions
- Increase in price of key feedstock such as naphtha, gas and phosphoric acid

Fertiliser subsidy posted 11.5% CAGR over a decade; however in FY08 & FY09 it has increased 4x

### Chart 2: Rising fertiliser demand

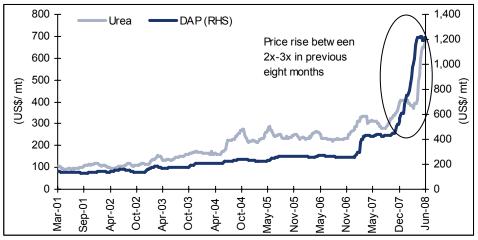
Fertiliser consumption to post 6.8% CAGR through FY03-12, thereby pressurising subsidy bill



Source: I-Sec Research

### Chart 3: Skyrocketing international fertiliser prices

International fertiliser prices have risen sharply 2-3x in the past 8 months owing to high demand for fertilisers



Source: Bloomberg, I-Sec research

Key reason for rising international prices

- Diversion of agri-product for bio fuel influenced by high crude prices created huge rise in prices of agri products
- Rise in agri-product prices drive higher fertiliser consumption across the globe
- Rise in the key feedstock prices (hydro-carbon and rock-phosphate)
- Supply growth sluggish owing to no capacity additions in India and delay in commissioning of plants in the Middle East

Indian urea imports have significant influence on fertiliser Spot prices internationally as the country contributes ~30% of world trade in urea

Post KG basin gas supplies, India will be self-sufficient, which will drive policy decision

### India's influence on global urea prices

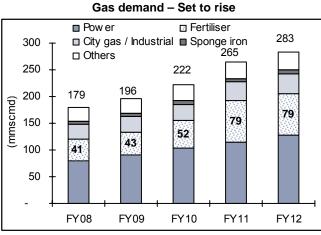
Policy change is inevitable as policy makers are aware that Indian demand in Spot market is very significant, particularly for urea. In FY08, urea purchase by India in the international market was as high as 30%. Rise in Indian imports in FY08 was also an important factor for increase in international urea prices. With augmentation of domestic capacity, Spot market would ease.

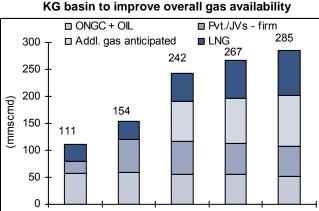
### Gas availability to drive policy decision

India has not focussed on building urea capacity since the past decade as cheap feedstock was not available in India. However, since sufficient key feedstock (natural gas) in urea production will be available post KG basin gas supplies, the Government is likely to encourage domestic urea capacity.

Availability of natural gas would improve post supply from KG basin and, as a result, India may become natural-gas sufficient by FY11. With development of the National Gas Grid (NGG), gas distribution would also improve.

### Chart 4: Sufficient natural gas likely to be available by FY11





FY10

**FY11** 

FY12

FY09

Source: Ministry of Petroleum & Natural Gas (MPNG), I-Sec Research

The gas allocation policy has assigned highest priority to the fertiliser sector vis-à-vis all other sectors. This is a major positive for the sector, given expected growth in demand for gas from other sectors.

FY08

#### Proximity to NGG to be advantageous for future expansions and capacity NFL 👭 utilisation BHATINDA TANAGA BHUTAN NEPAL BAREILL GANGTON AURAIYA AGDISHPUR DISPUR Ь коніма SHULLONG AVA 0 IMPHAL BANGLADES VIJAIPUR AGARTEL AIZAWL OKAR AGAR MYANMAR HAZIRA RCF A1/A3 BLOCK, MYANMAR MUMBAI PUNE Nag D Hyderabad Nagarjuna VIZAG DABHOL KAKINADA RAICHUR NELLORE CHENNAI HASAN MANGLORE Proposed Non-GAIL proposed Existing косні TUTICORIN

Source: Infraline, I-Sec research

### Chart 5: National Gas Grid (NGG)

# Proposed policy attractive for de-bottlenecking

# New policy to encourage domestic capacity

With aim to encourage domestic investment in urea capacity, the new investment policy for urea proposes IPP for all new capacities. However, the new policy would not be applicable for existing plants, which would continue to operate under the current regime.

#### Table 1: New fertiliser policy

De-bottlenecking	Greenfield/brownfield
85% of IPP for additional production	95% of IPP
Assured take-off at floor-cap price of US\$240-360/te	Assured take-off at floor & cap price of US\$240-360/te
Realisations would not be lower than the current	
concession rate, based on gas at market price	

# De-bottlenecking to boost profit

De-bottlenecking would significantly improve returns of existing fertiliser plant on the back of lower capital cost and assured IPP. However, cost of gas and reassessment of capacity would be risks to these earnings. Our calculations suggest that debottlenecking would recover equity contribution in the first year of operations.

### Table 2: De-bottlenecking to boost returns

	-	
	(US\$)	Comment
Capital cost (mtpa)	300	De-bottlenecking cost will vary with each plant, depending on the
		specifications and equipment required to be changed
Cost of gas (mmbtu)	5.5	We have taken landed cost (Including tax & transportation cost) of
Cost of gas (Gcal)	21.8	gas for supplies from KG basin at wellhead price of US\$4.2/mmbtu
Energy required (Gcal/te)	5.4	De-bottlenecking would also improve energy efficiency
Energy cost of urea	118	
Other production expenses	30	
Depreciation	17	
Cost per tonne	165	
Expected price per tonne	360	As current international prices are above US\$650/te, we have taken
		a US\$360/te cap, as proposed in the new policy
PBIT	195	
Debt-to-equity	2:01	
Rate of interest (%)	12	
Interest	24	
PBT	171	
PAT	113	Assumed normal tax rate for de-bottlenecking
RoE (%)	113	
Source: LSec research		

Source: I-Sec research

### Table 3: New policy gainer

Company	Urea capacity (mtpa)	Policy impact	Capex (Rs bn)	Increase in PAT (Rs bn)
Chambal Fertilisers	2	De-bottlenecking ongoing; to be complete by April '09; capacity to rise 0.14mtpa	3	0.58
RCF	2	De-bottlenecking to commence. Capacity would increase 0.3mtpa; we believe the increase would happen by October '09	4.5	1.06
Nagarjuna	1.4	De-bottlenecking to result in capacity Increase of 0.2mtpa by October '09	2	0.9
Tata Chemicals	1	De-bottlenecking to Increase capacity 0.2mnte by October '08	1.5	0.95

Source: Company data, I-Sec Research

Radical policy changes proposed, to encourage domestic capacity

De-bottlenecking to be extremely profitable

Chambal,

Nagarjuna and RCF to be major gainers of de-bottlenecking

9

# Policy unattractive for greenfield, for now....

New urea policy encourages investment in greenfield/brownfield by providing IPP with minimum price and guaranteed offtake. However, we believe that this would not be attractive enough for new investments.

### High capital cost to lead to moderate returns

Overall, cost of annual capacity of a 1mnte plant is US\$1bn, which has risen 80% in the past three years due to rising metal prices. High investment is leading in low asset turnover of 0.36 (as per the proposed fertiliser policy) in the best case scenario, thereby leading to moderate RoE despite high operating margin.

### Table 4: High capital cost leading to moderate returns

	(US\$)	Comment
Capital cost (mtpa)	1,000	Capital cost for current project is assessed at US\$1,000/te
Cost of gas (mmbtu)	5.5	We have taken landed cost (Including tax & transportation cost) of
Cost of gas (Gcal)	21.8	gas for supplies from KG basin at wellhead price of US\$4.2/mmbtu
Energy required (Gcal/te)	5.2	For a greenfield plant, we have taken higher energy efficiency at 5.2Gcal/te
Energy cost of urea	113	
Other production expenses	30	
Depreciation	55	
Cost per tonne	198	
Expected price per tonne	360	As current international prices are above US\$650/te, we have taken a US\$360/te cap, as proposed in the new policy
PBIT	162	
Debt-to-equity	2:01	
Rate of interest (%)	12	
Interest	80	
PBT	82	
PAT	72	We have assumed minimum alternative tax (MAT) for new capacity, as the new policy is likely to include fiscal incentives
RoE (%)	21.7	· · ·

Source: I-Sec research

### Uncertainty over gas prices

The Empowered Group of Ministers (EGoM) had fixed the price of gas at US\$4.2/mmbtu in December '07, taking a stance that the Government's commitment of offering market price for gas to companies investing in the country's E&P activity should prevail. These prices are likely to be revised upwards. With high gestation of 36-48 months in fertiliser plants, it would be difficult to estimate gas prices at the start of operations of the plant. Further, the proposed policy does not provide a cost escalation mechanism to compensate for losses due to increase in gas cost. We believe that ongoing uncertainty on gas prices and RoE sensitivity to them would further reduce attractiveness of a Greenfield plant.

### High political risk

Political risk attached to the fertiliser sector is very high as it touches the largest vote bank of farmers. Given the magnitude of investment size, it would be difficult to attract new investments in the sector.

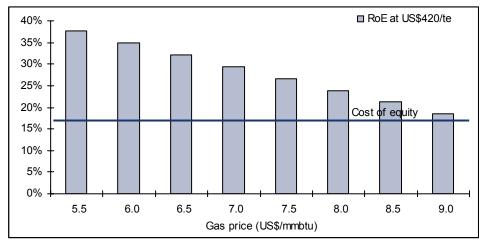
Capital cost has risen significantly owing to rising metal prices. At current capital cost, a greenfield's RoE does not look attractive due to low asset turnover

Uncertainty on gas prices and cost escalation method, as regards rise in gas prices, may adversely impact a Greenfield project

Political sensitivity also creates risks for new investments

# ...however, skyrocketing urea prices may compel Government to announce attractive greenfield policy

International urea prices having risen over US\$700/te (in terms of landed cost at domestic port), ~2x from previous year are likely to compel the Government to raise the unattractive band of US\$240-360/te for a greenfield plant. We believe that if the upper band is increased from US\$360/te to US\$420/te, it may lead to a phenomenon RoE of ~38%, up from ~22%. This could result in the policy becoming very attractive for greenfield, despite associated risks including gas prices. If landed gas costs rise to US\$7/mmbtu from US\$5.5/mmbtu, the project may fetch RoE of ~30%. Even in the worst case scenario, where landed cost of gas is at US\$9/mmbtu, the RoE would remain attractive at ~19%.



### Chart 6: Attractive RoE, even at substantially high gas prices

Source: I-Sec Research

A spectacular RoE of ~38% is more-than makes up for all associated risks related to a greenfield fertiliser plant. We believe that if the policy increases the upper band of urea prices to US\$420/te, it would attract greenfield plants in India. Companies such as Chambal backed by strong financials and the Group Company and RCF supported by Government subsidy should be able to capitalise on the new policy. Other players such as Tata Chemicals, Krishak Bharati Cooperative (KRIBHCO) and Indian Farmers Fertiliser Cooperative (IFFCO) should be able to capitalise on such an attractive opportunity. We believe Nagarjuna would not be able to benefit from this opportunity by itself owing to poor financial and execution skills; however, it may become an attractive acquisition target for new entrants in the fertiliser space.

# Deregulation unlikely due to low political willingness

We believe that de-regulation would not happen as it would mean that the farmer would have to pay higher prices for fertilisers. Fertiliser prices have not been hiked for almost a decade. The affordability of the farmer has increased multi-fold owing to rising income of farmers; but, we believe that due to low political willingness, price rise of fertilisers or deregulation in the sector is unlikely.

No price rise in past decade strengthens our belief that the sector is unlikely to witness deregulation **Political impact.** Majority of the population in India is dependent on agriculture and is, therefore, directly/indirectly impacted by fertiliser prices. Any price increase will have adverse political implications.

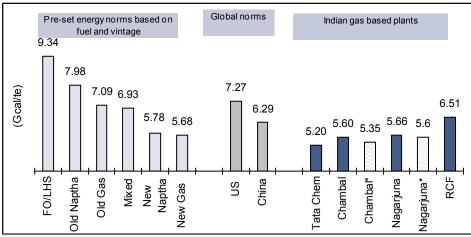
**Stress on agri-yield to become self sufficient.** Also, the Government focuses on agri-yield to become self sufficient in food, given worsening international food crises due to high diversion of agri output to bio fuel; the Government aims at self sufficiency in food vis-à-vis the fertiliser subsidy issue.

**Price sensitivity of fertilisers.** Fertilisers are price sensitive and, as per a study by the Department of Fertilisers (DoF), have negative correlation of 0.23 to prices, hence implying that if prices increase 100%, consumption will decrease 23%. Decreasing fertiliser consumption would lead to reduction in crop production.

# Higher energy efficiency to aid profitability

Indian urea plants are one of the most efficient plants compared with other countries Indian urea plants are one of the most energy efficient plants in the world. As per the Gokak Committee report, Indian gas plants are more efficient than gas-based plants in China and the US. Notably, gas cost at present is a pass-through and there is very little incentive for being energy efficient. However, in the proposed policy regime, energy would no more be a pass-thorough cost for new capacity and energy efficiency would drive profitability.

### Chart 7: Energy efficient plants to gain in proposed policy scenario



<sup>\*</sup> post de-bottlenecking;

Source: Gokak Committee report, DoF, Company data, I-Sec Research

Energy efficiency would further improve post debottlenecking Energy is the most critical cost component for urea and contributes ~60% of total cost of manufacturing urea. De-bottlenecking exercise would improve energy efficiency of the plants up to 0.06-0.25Gcal/te urea. In the current policy scenario, energy efficiency would be passed on to the companies.

Energy efficiency would become critical in the proposed policy scenario as gas cost would not remain a pass-through for new capacity going forward

# Shifting to cheaper feedstock (KG basin gas) to ease working capital pressure

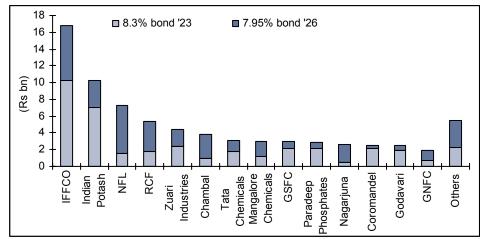
# Rising subsidy bill leads to delay in disbursement

Rising subsidy bill has caused under provisioning, leading to delay in subsidy payment Rising subsidy pressure is causing delay in payment of subsidy as the budgetary provisions are falling short of actual requirement. In FY08, the actual subsidy was Rs460bn vis-à-vis Rs225bn provided in the budget. Even the secondary budget provided a only relief of Rs150bn, resulting in total under provisioning of Rs85bn in FY08. Notably, half of the secondary budget at Rs75bn was paid in form of fertiliser bonds.

# Fertiliser bonds creating liquidity crunch

Fertiliser companies were paid Rs75bn subsidy in FY08 in the form of fertiliser bonds. This led to working-capital crunch for fertiliser companies as such bonds were trading at a discount to par value owing to lower coupon, high duration and non-SLR status. These bonds have been trading at 6-10% discount to their face value as per the Clearing Corporation of India (CCIL).

### Chart 8: Bonds issued to fertiliser companies in lieu of cash subsidy



Source: Source: Fertilisers Association of India (FAI), I-Sec Research

Fertiliser companies were issued bonds worth Rs75bn in FY08, which fuelled working-capital crises

### Losses on fertiliser bonds cause pain

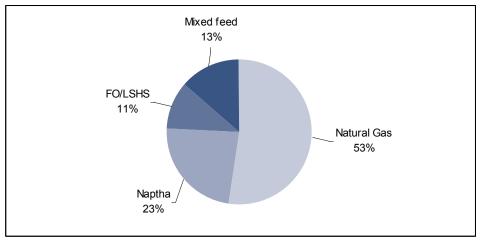
Fertiliser bonds have been sold at discount to face value, causing unwarranted losses to fertiliser companies Due to bonds trading at below par value, most fertiliser companies registered losses on account of mark-to-market (MTM) and/or realised losses on such bonds in FY08 (Chambal: Rs187mn, Nagarjuna: Rs156mn, Mangalore Chemicals & Fertilisers: Rs136mn, RCF: Rs5mn).

### Shifting to cheaper feedstock to ease working-capital crunch

Currently, fertiliser companies in India use multiple feedstock such as natural gas, naphtha, fuel oil (FO) and LSHS (Low Sulphur Heavy Stock). Notably, the effective energy cost of fertilisers produced through expensive naphtha and LSHS is 3-4x that of urea produced via natural gas.

### Chart 9: Urea capacity in India (based on feedstock)

Cost of energy for production based on naphtha or FO/LSHS is 3-4x of production based on natural gas



Source: DoF, I-Sec Research

Shifting to cheaper gas would not boost profit but help working-capital management Post the new pricing scheme (NPS)-3, which mandates shifting to natural gas by FY10, and improved availability of gases, production would shift towards natural gas usage. Though we believe that conversion to natural gas by FY10 would not be 100% as capital cost of switch from FO/LSHS is high and not commercially viable as per the current policy regime. We believe that dual-feed plants would shift towards 100% natural gas usage; naphtha-based plants closer to the gas pipe line would also shift to natural gas.

The current policy provides pass-through of energy costs and, hence, shifting to cheaper fuel would not impact profitability directly. However, this will reduce subsidy receivables from the Government and, thus, reduce working capital crises.

# Expensive spot gas to be replaced by KG basin

Supplies from KG basin to replace expensive spot gas Currently, gas-based urea plants have firm allocation of APM/PMT gases and they buy in the spot market to meet additional demand and supply shortages. However, post commencement of gas supplies from RIL's KG basin, expensive spot gas would be replaced with cheaper KG basin gas.

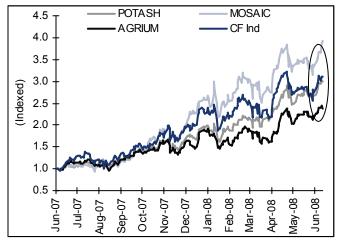
# Attractive valuations, we like Chambal & GSFC

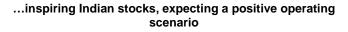
We like company-specific stories driven by earnings boost from de-bottlenecking and other businesses. We are bullish on Chambal on the back of earnings flow from debottlenecking and consequential energy efficiency and the company's phosphoric acid JV IMACID owing to rising phosphoric acid prices, foray into power generation with capacity of 2,600MW, strong financials further supported by a liquid shipping portfolio and strong management execution. We are bullish on GSFC's foray into the methanol space as well as its healthy caprolactum business. We initiate coverage with HOLD rating on RCF owing to huge option value from land and capital subsidy, although monetisation of these options is uncertain and we are not impressed with its core business and valuations. We initiate coverage on Nagarjuna with SELL rating, despite factoring upside from de-bottlenecking and the company's foray into refinery, due to expensive valuations and over-valued option related to refinery business, which is already delayed by a decade,.

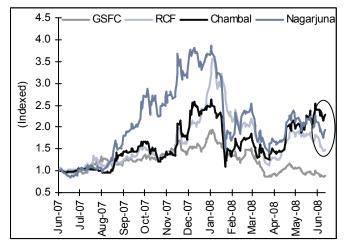
Indian fertiliser stocks have been fairly volatile, with expectation of change on the operating front, from regulated returns to market-linked returns, at least on new investments. Indian fertiliser stocks such as Chambal, RCF and Nagarjuna have risen 50-128% in the past year. Globally, major fertiliser stocks have risen sharply in the past one year, at 2.3-3.9x, on the back of rise in fertiliser prices. We believe that the proposed policy changes would be positive for earnings of fertiliser companies due to major benefit from de-bottlenecking.

### Chart 10: Remarkable returns

Global fertiliser stocks have given extraordinary returns in past one year...



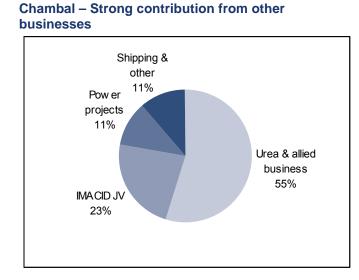




Source: Bloomberg, I-Sec research

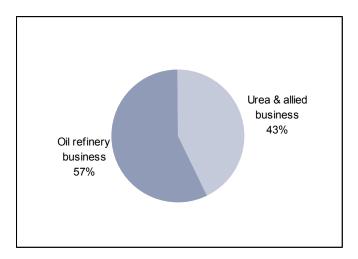
# Other businesses contribute significant value

Owing to lack of opportunity for rational investment in the fertiliser space, Indian fertiliser companies have invested incremental cashflows in different businesses. We believe that some such investments such as in the IMACID JV by Chambal have proven to be a strong positive for the companies. In few investments, we have assigned conservative valuations due to existing uncertainty (e.g., we have valued to Nagarjuna's refinery foray at BV due to uncertainty on project execution. Also, we have assigned conservative option value to land and capital subsidy for RCF).

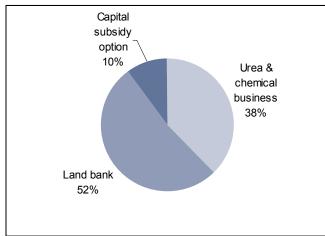


### Chart 11: Other businesses to contribute significantly

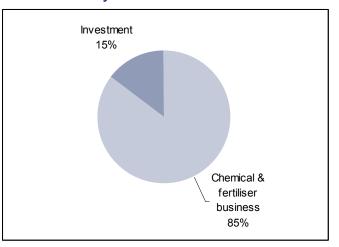
### Nagarjuna – Valuing refinery business







### GSFC – Driven by core business



Source: I-Sec research

# Key risks

# Government policy

Mounting subsidy bill would pressurise the Government for long term planning. The proposed fertiliser policy validates Government intention to encourage domestic capacity in India. However, in the scenario of the new policy not coming through (which is highly unlikely) owing to elections next year and no direct perceived benefits for farmers, the policy may get delayed. This would be a risk to our earnings estimates.

# Availability & pricing of gas

Currently, the energy cost is a pass-through cost and gets reimbursed through the subsidy bill; hence costs do not have any significant affect on profitability. In the proposed policy, gas cost would not be a pass-through, thereby impacting profitability. If KG basin gas is not available, gas costs would be significantly higher; thus, fertiliser companies would not be able to reap the complete benefit of the new policy. Further, if well-head prices of the KG basin are revised upward significantly, it would impact profitability.

# Completion of project

Our earnings estimates would be subject to in-time completion of de-bottlenecking projects. RCF has not indicated any timeframe for completion of project; however, we have factored in completion by October '09. If de-bottlenecking is not achieved by then, it would impact our earnings estimates

# **Annexure 1: Industry overview**

# Fertiliser demand set for swift rise, increasing supply gap

No capacity additions since past decade due to discouraging regulation

Rising supply gap

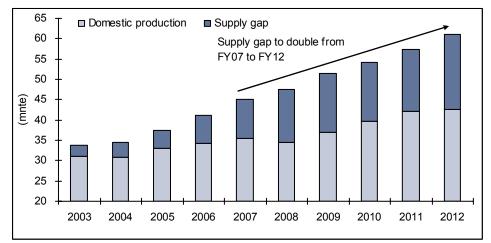
makes change in

policy imperative

The fertiliser sector in India is highly regulated. The Government began encouraging fertiliser consumption during the first green revolution (late 1960s) via fixing fertiliser prices at the farm gate and paying the cost to producers as per RPS. This attracted new capacity in India, reaching 35mtpa. However, no capacity additions have been witnessed since a decade due to non-encouraging fixed returns and stringent regulation. These policies hurt the Government when demand surpassed domestic supply.

In the current scenario, India imports ~21% of its fertiliser requirements. Indian fertiliser consumption is likely to increase to 61mnte by FY12E from ~45mnte in FY07, a CAGR of ~6%. The current scenario makes it imperative for the policy maker to promote capacity addition in India or choose expensive imports. Moreover, a huge surge in Indian imports may drive international fertiliser prices higher as India imports a significant portion in international trade.

### Chart 12: Supply gap to rise on muted production

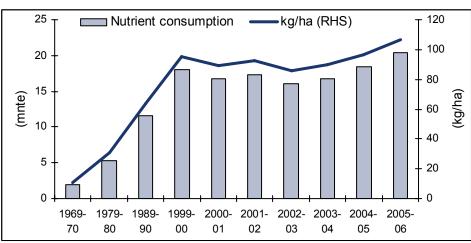


Source: DoF, I-Sec Research

# Demand to post ~6% CAGR...

# ...due to need for yield improvement

With growing demand for food, increasing food prices globally and concerns on food security, focus on yield improvement is set to be higher than ever. This is likely to drive per-hectare fertiliser consumption, which would be further stretched due to the fact that farmable land can not be increased. Thereby, it is only a logical choice to improve per-hectare yield, which would, therefore, drive fertiliser consumption.

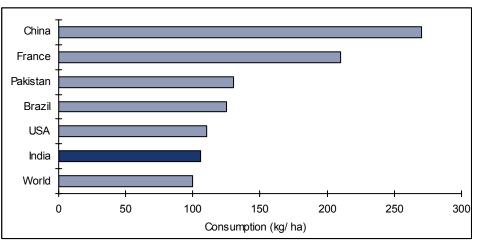


#### Chart 13: Pressure on agri yield to drive per-hectare consumption

Note: Nutrient is a component available in various fertiliser, e.g. urea has 46% nitrogen. Demand (LHS) shown in graph is demand at nutrient level. Source: DoF, I-Sec Research

Moreover, current Indian per-hectare fertiliser consumption is significantly low compared with other countries, thus leaving scope for higher fertiliser consumption.

# Chart 14: India per-hectare fertiliser consumption low, thus more headroom for improvement



Source: DoF, I-Sec Research

Demand to post CAGR of ~6% till '12 due to pressure on agri yield, increase in affordability for farmers and controlled fertiliser prices

India fertiliser per-

consumption is low; set to rise in

line with other

hectare

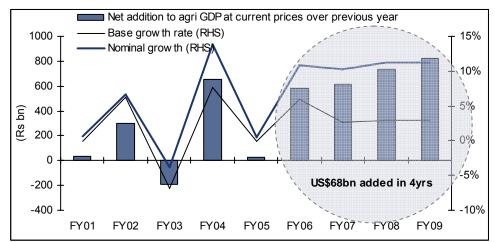
countries

# Agflation to contribute to rising fertiliser consumption

Generally, the Indian agriculture sector is viewed as a sub 3%-growth sector. However, this view ignores the larger picture as, post factoring in agflation (agri inflation), the Agri-GDP would post CAGR of ~11% over FY05-09. This would lead to a huge ~50% or US\$68bn rise in income of farmers in four years.



Strong agflation has added US\$68bn to farmers' annual income within four years, a 50% rise from FY05 levels



Source: Bloomberg, I-Sec research

Rising agri prices support higher fertiliser consumption, despite declining fertiliser response to yield

We believe that agflation has led to increase in farmers' incomes. As per our analysis of few crops that have witnessed strong agflation, farmers have gained from the rising prices. For example, the minimum support price (MSP) of wheat has risen to Rs1,000/quintal (qt) in FY08 from Rs620/qt in FY03, adding over Rs3,000bn to farmers incomes. Similarly, milk prices have risen Rs3-4/litre, adding ~Rs2,830bn to rural income. Notably, a rise in MSP flows directly into the hands of farmers.

Rising prices of agri commodities support higher fertiliser consumption, despite declining fertiliser response to productivity, as the economics support higher consumption owing to improved output prices.



Wheat MSP has risen ~50% in three years and a rise in MSP flows directly to the farmers



Source: NCDEX, I-Sec research

### Other Government initiatives to support fertiliser consumption

#### Farm-loan waiver

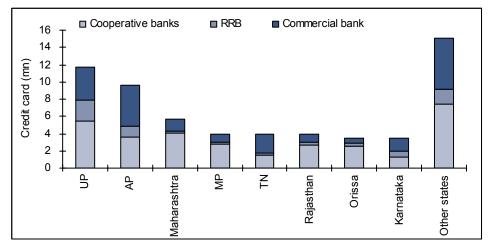
Mega farm-loan waiver would boost demand in the agri space

In an unprecedented move, the Government of India (GoI) proposed a US\$15bn loan waiver for small farmers in Budget FY08-09. The waiver is likely to benefit 80-82% farmers and help reduce financial distress in the agri sector as well as enhance affordability of small farmers. It would also give major boost to agri-input consumption going forward.

### **Kisan Credit Card**

The Kisan Credit Card (KCC) Scheme was introduced to provide adequate and timely support by the banking system to farmers for the latter's cultivation needs, including purchase of all inputs, in a flexible and cost-effective manner. Total KCCs have risen from 29mn in '02 to 60mn in '07, at a CAGR of 16% as per the credit division of the Ministry of Agriculture.

### Chart 17: Explosive growth in KCC distribution



Source: Ministry of Agriculture, I-Sec Research

KCC Scheme has seen explosive growth and reached 60mn, at a CAGR of 16%

### SEZs – Mega wealth creators for farmers

SEZs have created more wealth for farmers than any other activity carried out for them after Independence As per the Special Economic Zone (SEZ) plan, ~150,000ha of land needs to be acquired for SEZs, based on in-principal approvals. Assuming that 50% of this land is being acquired at an average price of Rs2mn/acre (Rs45/sqft), it would translate into a payment of Rs370bn by corporates to farmers. Development of SEZs has pushed up farm land prices to all-time highs.

As per the Union Commerce Secretary, SEZs have created more wealth for farmers than any other activity carried out for them after Independence; SEZs are likely to create Rs600-1,000bn wealth for farmers, who gave their land for setting up the zones. Thus, such growing wealth in the rural system is a positive for the agri-input sector.

# Annexure 2: Current regulatory scenario

### NPS-3 – Too small a step for change

The latest urea policy, NPS-3, effective April '06, and was intended to encourage domestic capacity regime; but, it failed as it did not offer any lucrative margins.

### Table 5: NPS-3 decoded

- Allowed production beyond 100% to domestic manufacturers without separate approval
- Move existing manufacturer to cheaper feedstock natural gas
- Set a timeframe for moving to cheaper feed stock (NG/ LNG). In case of non availability of gas pipeline, manufacturers are advised to move to coal bed methane (CBM) usage
- Capital assistance and 5-year higher subsidy assured for changing feedstock
- Subsidy rate

Production	Minimum of	
Up to 100% of rated capacity	Unit concession rate	
100-110% of rated capacity	Price based on import urea price, where 65% of the gain (IPP less Variable Cost) is retained by the Government	Concession rate applicable for the unit
More than 110% of rated capacity	Concession rate applicable for the unit	IPP

Source: FAI, I-Sec Research

NPS-3, launched in '07, failed to attract any investment in India as it was not Iucrative enough

# **Annexure 3: Global fertiliser demand**

Global aspiration for self sufficiency in energy coupled with rising crude prices has led to increased focus on ethanol production worldwide. This is not only increasing global fertiliser demand but also changing the global food demand & supply equation as well as firing up global food prices, thereby further necessitating higher crop yield. Global fertiliser prices have been growing on the back of increasing bio-fuel production and demographical changes in China and India.

Global aspiration to become energy selfsufficient coupled with rising crude prices has lead to high focus on ethanol production

As a result of surging bio-fuel production, utilisation of industrial coarse grain is growing much faster than food & animal feed demand over recent years. During FY04-08, industrial maize demand was seen to be up 80% worldwide, while food & animal feed increased only 5% over the same period. Global production of bio fuel (ethanol and bio diesel) exceeded 58bn litres in '07. Global ethanol market is expected to exceed the 120bn litre mark by FY20, at a CAGR of over 6.5% through FY07-20.

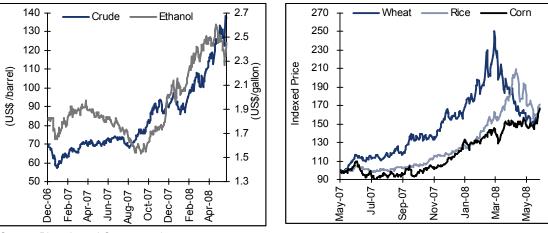
# Forces driving international fertiliser prices

Surging crude prices have resulted in the US diverting resources to alternate bio fuel. Bio fuel prices have mirrored crude prices and risen dramatically. Bio-fuel demand has led to higher diversion of arable land towards bio-fuel feedstock from food causing demand/supply mismatch of food. This has, thereby, led to surge in global food prices.

### Chart 18: Rising crude prices & diversion to bio fuel drive global food prices

Rising crude prices supporting prices of bio fuel

Bio fuel demand lead to mismatch in demand/supply of agri product



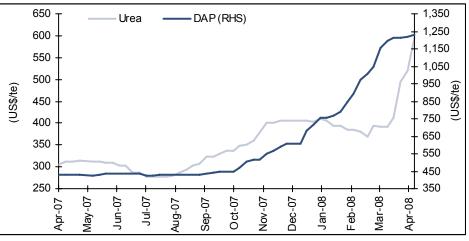
Source: Bloomberg ,I-Sec research

Rising farm product prices have pressurised agri yield, thereby driving higher consumption of fertilisers. This has led to sharp rise in fertiliser prices.

Rising crude prices are boosting ethanol demand, which is leading to global food demand/supply mismatch



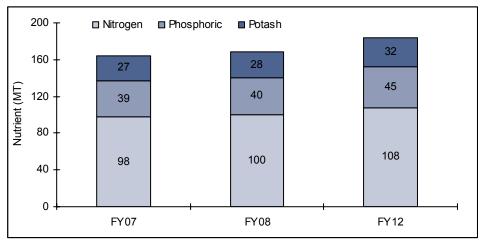
Rising food prices are supporting higher fertiliser consumption and, hence, driving fertiliser prices



Source: Bloomberg, I-Sec research

Responding to high agricultural commodity prices since mid-CY06 and supportive policies in Asian countries, Global fertiliser demand increased 4.8% in FY07. World fertiliser demand in FY07 is estimated at 163.9mnte as against 156.5mnte in FY06.

### **Chart 20: Global fertiliser consumption**



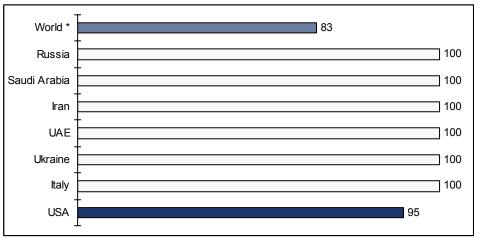
Source: IFA, I-Sec research

# Feed stock – Natural Gas

Energy cost is most critical for urea production. Currently, manufacturers in India are resorting to naphtha and expensive spot gas for urea production in the absence of adequate availability of natural gases. Worldwide natural gas is used as feedstock for 83% of urea production.

China, the US and India are the three largest producers of ammonia and urea accounting for 41% of world ammonia and 47% of urea production in CY00. China and India have substantial fertiliser capacity, utilising feedstock other than natural gas.

Chart 21: Share of natural gas as feedstock



Source: IFA, I-Sec Research

# **Annexure 4: Index of Tables and Charts**

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INDIA



# **Chambal Fertilisers & Chemicals**

# True blue

**Rs80** 

BUY

Reason for report: Initiating coverage

Chambal Fertilisers & Chemicals (Chambal), the largest private urea player in India, is likely to witness strong earnings growth owing to de-bottlenecking of urea plant and rising phosphoric acid prices. We believe key investments such as IMACID JV would deliver significantly higher returns backed by phosphoric price rising 3.25x over last year. A 2,600MW power foray by '13E can add significant value for shareholders. We believe the highly liquid shipping portfolio further strengthens the company's ability to drive growth. We initiate coverage with BUY rating and our sum-of-the-parts (SOTP) valuations yield a 12-month target price of Rs115/share.

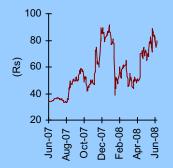
- **De-bottlenecking to boost returns.** De-bottlenecking would increase capacity 0.14mtpa by April '09 as well as boost PAT Rs579mn. This project would also lead to energy saving of ~4.5%, with required energy decreasing to 5.35Gcal/te, leading to Rs428mn savings.
- **IMACID JV A gold mine.** Owing to phosphoric acid prices skyrocketing (225% rise in the past one year), IMACID JV would add as much as ~Rs2bn to consolidated EBIT in FY09E. We believe ownership of phosphoric acid assets has given a Midas touch to Chambal and have assigned a value of Rs11bn (Rs26.5/share) based on a conservative premium of 25% (to reflect rock phosphate reserves of the highestquality in Morocco) over replacement costs.
- 2,600MW power foray by '13E. Chambal is pursuing opportunity in the power space and has received approvals for its 2,600MW power foray from Chhattisgarh and Orissa; the approvals are at different stages. Chambal is now in the process of pursuing coal linkages. Owing to strong financials further strengthened by highly liquid shipping portfolio and superior management capabilities, we have assigned Rs2mn/MW, valuing the entire business at Rs12.5/share.
- Attractive valuations. Our SOTP valuations yield target price of Rs115/share, suggesting an upside of ~44%. We have valued urea and related businesses at 12x FY10E PAT or Rs63/share and assigned Rs52/share to IMACID, power, shipping and other investments. We initiate coverage with BUY recommendation and a target price of Rs115/share in the next 12 months.

Market Cap	Rs33.1bn/US\$774mn	Year to Mar	FY08P	FY09E	FY10E	FY11E
Reuters/Bloomberg	CHMB.BO/CHMB IN	Revenue (Rs mn)	27,201	28,617	29,956	31,077
Shares Outstanding	(mn) 416	Net Income (Rs mn)	1,321	1,308	2,427	2,660
52-week Range (Rs)	92/33	EPS (Rs)	3.2	3.1	5.8	6.4
Free Float (%)	51.0	% Chg YoY	1.7	(1.0)	85.6	9.6
FII (%)	5.0	P/E (x)	25.0	25.3	13.6	12.4
Daily Volume (US\$'0	00) 21,000	CEPS (Rs)	7.6	8.5	11.8	12.7
Absolute Return 3m	(%) 43.9	EV/E (x)	11.6	10.3	7.6	6.9
Absolute Return 12m	ו (%) (87.3)	Dividend Yield	2.3	2.3	3.1	3.8
Sensex Return 3m (%	%) (5.8)	RoCE (%)	5.7	6.3	8.7	9.2
Sensex Return 12m	(%) 7.5	RoE (%)	12.3	11.3	19.6	19.5

# **Fertilisers**

Shareholding pattern					
	Sep '07	Dec '07	Mar '08		
Promoters	49.0	49.0	49.0		
Institutional					
investors	17.7	19.7	18.1		
MFs and UTI	4.9	5.9	6.9		
Insurance Cos.	6.3	6.1	6.1		
FIIs	6.6	7.7	5.0		
Others	33.3	31.3	32.9		
Source: CMIE					

#### Price chart



# De-bottlenecking to improve efficiency & profitability

Largest private urea player and connectivity to national gas grid to help Chambal gain from any future change in fertiliser policy

# Uncy

De-bottlenecking can boost profit Rs579mn annually under the proposed policy

# Largest private player in urea

Chambal is the largest private urea player with 1.7mnte installed annual capacity. The company produced ~2mnte urea in FY08. The Chambal plant is connected to the national gas grid, helping the company gain in a probable policy change in the fertiliser space.

### De-bottlenecking to increase urea capacity 0.14mnte

Chambal has started de-bottlenecking exercise for its urea plant. This will increase the production 0.14mnte annually, leading to production of ~2.1mnte. The cost of the project is ~Rs3bn, which will be funded through internal accruals. This project is likely to be completed by April '09. We have built in our earning estimates based on the new policy.

### Table 1: Benefit of de-bottlenecking in proposed policy

(US\$/te)		
Capital Cost	556	Total capital cost Rs3bn for de-bottlenecking project
Cost of Gas (mmbtu)	5.8	Connectivity to the gas grid would aid higher utilisation
Cost of Gas ( Gcal)	22.8	One mmbtu = 0.252Gcal
Energy required per tonne of urea	5.35	Post de-bottlenecking, the energy efficiency would
		improve from the current 5.66gcal/te to 5.35gcal/te
Energy cost of urea	122	
Other production expenses	30	
Depreciation	31	
Other cost	15	On a conservative basis, we have added US\$15/te
		cost to factor in any policy change
Cost	198	
Expected price based on proposed policy	360	International fertiliser price running beyond US\$600/te
		we have factored in realisation at the cap rate
		proposed by new policy
PBIT	162	
Debt-to-equity		We have assumed that internal accrual would not be
		sufficient for Nagarjuna to fund de-bottlenecking
Rate of interest		
Interest		
PBT	162	
PAT	107	We have assumed marginal tax as currently no
		incentive proposed in the policy
Increase in capacity (mnte)	0.14	
	0.14	

Benefit at PAT level (Rs mn) Source: Company data, I-Sec Research

# Energy efficiency to improve ~4.5%

Significant energy saving can lead to Rs428mn boost in PBT Consequent to change of parts during the de-bottlenecking process, the plant's energy efficiency will improve. Post de-bottlenecking, the energy required per ton would improve from the current 5.6Gcal/te to 5.35Gcal/te. As per the current policy NPS-3, the energy efficiency over and above the set norms would be passed on to the companies. This energy efficiency would lead to Rs428mn benefit at the PBT level annually.

579

### Table 2: Significant benefit through energy saving

•	•	•	
Energy cost in FY11 (Rs/Gcal)			815
Energy efficiency (Gcal/te)			0.25
Production (mnte)			2.1
Energy saved (mn Gcal)			0.53
Saving (Rs mn)			428
Source: Company data, I-Sec Resea	rch		

# Scale of urea business provides platform for profitable trading business

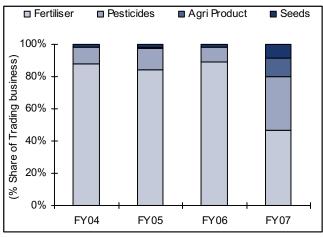
Scale of urea business to provide support to other agri-based trading product with higher margin

The urea business provides a huge distribution platform for the trading business, which is growing rapidly and is expected to touch Rs4.3bn by FY10E. Also, due to distribution cost sharing in the high volume urea business, the profitability of trading segment is expected to be in 6-7% range at EBIT level.

### Focussing on high-margin business

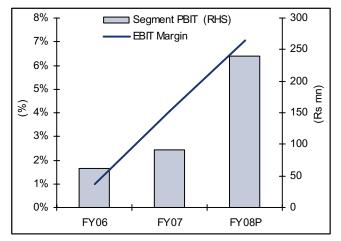
Chambal has diverted trading business' focus towards high-profit segment versus the fertilisers business. This has led to improvement in EBIT margin from 1% in FY06 to 7% in FY08.

### Chart 1: Shifting towards high-profit segment...



Source: Company data, I-Sec Research

### Chart 2: ...leading to boost in trading margin



# **Deep value investments**

# IMACID JV – Gold mine

With phenomenal rise in price of phosphoric acid, IMACID has turned out to be as good as a gold mine IMACID, engaged in manufacturing phosphoric acid, was promoted in 1997 as a JV between Chambal and Office Chérifien des Phosphates, (OCP) Morocco. IMACID commenced production in 1999. The initial intent of Chambal was to own phosphoric acid assets abroad, securing supplies for group companies. This investment has turned out to be a gold mine in the current context of rising phosphoric acid prices.

Chambal had sold one-third of its stake to Tata Chemical in '05 at 2x of its book value. Now, the IMACID JV is owned in equal proportion between OCP, Chambal and Tata Chemical. The current annual capacity of the plant is 0.43mnte of phosphoric acid.

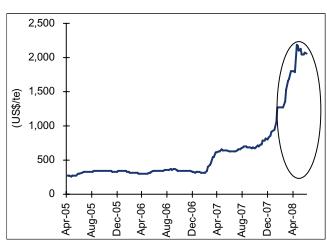
### Phenomenal rise in phosphoric acid prices.....

Owing to high demand of phosphoric acid in the US, the prices have gone up 3.25x in the previous year. As the price rise was steep in H2FY08, the average price realisation was higher just 14% versus FY07 – it moved to US\$632/te against US\$553/te. We believe this could be due to long-term supply agreement and the price rise would subsequently match the prevailing market price in FY09, leading to huge surge in realisation.

### ... can lead to astronomical profits

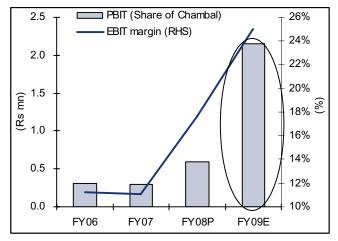
A 14% rise in average realisation of phosphoric acid has doubled the profit of IMACID JV in FY08 over FY07. We expect the average realisation to move up 2.4x to US\$1,500/te in FY09E over FY07 owing to high prevalent market price of ~US\$2,000/te. Even at FY08 EBIT margin, Chambal's share of profit from IMACID should go up to Rs1.4-1.5bn at the EBIT level. We believe that with this kind of phenomenal price rise of 2.4x, the EBIT margin would expand from 18% to at least 25%, resulting in EBIT contribution of Rs2.15bn, ~Rs3.5/share at the PAT level in consolidated profit & loss.





Note: Price of Phosphoric acid is derived from urea and DAP prices Source: Bloomberg, Company data, I-Sec Research

# Chart 4: ...leading to huge boost in profit contribution



Phosphoric acid prices have risen 3-4x in past one year owing to high demand in the US

Such a rise in price can lead to astronomical rise in FY09E profit, 3.6x of FY08 profit

### Valuing IMACID share

We have valued Chambal's IMACID share at Rs8.2bn based on replacement value

Significant wealth

Four more ships added US\$60mn to

Shipping portfolio highly liquid and can be converted

funding any future

to cash for

expansion

NAV

created by prudent

investments in ships.

We have assigned a valuation of Rs11bn to Chambal's share in the IMACID JV based on its replacement cost (at 7.6x FY09E PAT). For a similar plant in Tunisia, the project cost is US\$515mn for 0.36mnte capacity as against IMACID's capacity of 0.43mnte – GSFC and Coromondal Fertilisers are considering a similar project in Tunisia. On a conservative basis, we have assigned 25% premium to IMACID's plant over replacement value, based on the Tunisian project cost to factor rock phosphate reserves of the highest-quality in Morocco.

### Shipping portfolio – As good as cash

Chambal has inherited the shipping portfolio from its group company, India Steamship Company, which was merged with it in FY05. Chambal currently has an impressive portfolio of six Aframax ships (one single-hull and five double-hulls, of which three are in pipeline.) Of the three ships in pipeline, two are expected to be delivered by Hyundai Heavy Industries Co, South Korea in the first half of current fiscal.

Owing to high cyclicality of the shipping business, we prefer valuing the shipping business on net assets value (NAV) basis at US\$92mn.

### Table 3: Liquid portfolio of shipping

(US\$ mn) Ships in portfolio	Current value	Delivery date
Single Hull Aframax	16	In possession
Double Hull Aframax- 1	80	In possession
Double Hull Aframax- 2	80	In possession
Ships in pipeline		
Double Hull Aframax- 3	80	June '08
Double Hull Aframax- 4	80	August '08
Double Hull Aframax- 5	80	March '10
Total Value	416	
Debt – Shipping division	-220	
Outstanding payment to be made against delivery	-104	
Net value of shipping portfolio	92	

Source: Company data, I-Sec Research

# Power foray to generate significant value

### Power projects worth 2,600MW planned by FY13E

Chambal, through its 100% subsidiary, is pursuing opportunities in the attractive power business. The company has signed an MoU for 2,600MW and coal linkages are in progress at this stage.

Chambal has also signed an MoU in Chhattisgarh for 1,300MW and coal linkages are in progress. In Orissa 1,300MW power projects have been approved by a high power committee and coal linkages are in progress.

Though we are confident of management capabilities (in project management) owing to operational excellence gained in managing the largest private urea plant in India, we are assigning an option value of Rs2mn/MW considering that coal linkages are in progress.

Strong operational excellence gained in managing the most complex urea plant augurs well for power foray

# Venture in IT too small to have an impact

Chambal forayed into IT in '01 via acquisition of US-based NovaSoft engaged in the mortgage business vertical with focus on the residential mortgage segment. The company has invested ~Rs1.85bn in the software business through CFCL overseas so far. Owing to slowdown in the US mortgage business, this venture may not be able to achieve break-even in the next two years. The cash losses reported in FY07 were US\$7.1mn. At present, this business is going through a tough phase owing to US slowdown in residential market. Accordingly, we have valued this business at 30% discount to its investment value. This investment is too small to derail the entire earnings growth. We believe this should turn around once the US market comes out from the current recession.

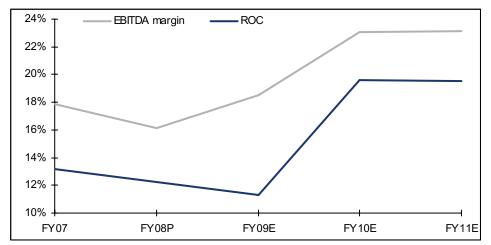
IT venture to rebound once US recession over. Expect pain in the next two years

# **Impressive returns**

# Returns to improve post de-bottlenecking

Owing to attractive de-bottlenecking projects, EBITDA margin will improve from 16% in FY08 to 23% in FY10E, leading to RoE being boosted from 12.3% in FY08 to 19.6% in FY10E.

### **Chart 5: Improving returns**



Source: Company data, I-Sec Research

# KG-basin gas to help in improving EBITDA margin

Declining gas cost will boost EBITDA margin in two ways:

- On the existing urea production (for which gas cost is a pass through), the subsidy bill will be reduced, hence reducing the topline without affecting EBITDA, thereby improving EBITDA margin and also through reduced interest on working capital.
- On the de-bottlenecked capacity, there would be a clear advantage owing to lower energy cost, thereby leading to improvement in EBITDA.

# **Attractive valuations**

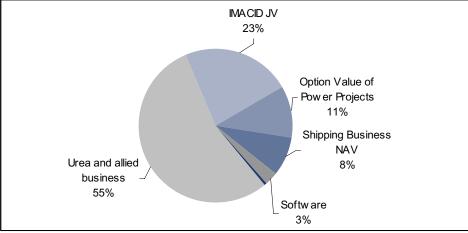
Our SOTP valuation yields a target price of Rs115/share, an upside of 44%. We have valued urea and the trading business at 12x FY10E PAT owing to strong financials, high growth visibility and high-quality execution capabilities. We have valued IMACID on the replacement value of a similar plant proposed in Tunisia by GSFC and Coromondal Fertilisers. We have assigned 25% premium over replacement cost to factor in rock phosphate reserves of the highest-quality in Morocco. We have assigned a conservative option value of Rs2mn/MW for Chambal's power foray and have valued the shipping business at NAV (net of debt related with the business). Strong balance sheet, good project execution skill and quality management help Chambal command a premium over its peers. The IMACID JV, net of software losses, is likely to contribute FY10E consolidated EPS of Rs2.5. On the consolidated EPS level, our target price suggests FY10E P/E of 13.1x.

### Table 4: SOTP valuations

	Value	Value	
	(Rs mn)	per share	Detail
Urea and allied business	26,061	62.6	Valued at 12X of FY10E PAT
			Valued at replacement cost based on similar
			project at Tunisia for GSFC. We have assigned
			25% premium to IMACID for highest quality of
IMACID JV	11,021	26.5	rock phosphate reserves in Morocco
Option value of power Projects	5,200	12.5	Option value of Rs2mn/MW
Shipping business NAV	3,956	9.5	NAV-based valuation
Software	1,295	3.1	Valued at 0.7x of BV
Other investments	187	0.4	Zuari Investment valued at BV
SOTP	47,720	115	

Source: I-Sec Research

# Chart 6: Significant contribution from non-urea business



Source: I-Sec Research

### Financial Summary (Standalone)

#### **Table 5: Profit and Loss Statement**

(Rs mn, year ending March 31)

· · · · · ·	FY08P	FY09E	FY10E	FY11E
Operating Income (Sales)	27,201	28,617	29,956	31,077
Operating Expenses	22,821	23,319	23,042	23,897
EBITDA	4,380	5,298	6,914	7,180
% margins	16	19	23	23
Depreciation & Amortisation	1,849	2,212	2,475	2,619
Gross Interest	919	1,352	1,152	952
Other Income	347	100	101	104
Recurring PBT	1,959	1,834	3,389	3,712
Add: Extraordinaries	717	-	-	-
Less: Taxes	638	526	961	1,052
Minority Interest	-	-	-	-
Net Income (Reported)	2,038	1,308	2,427	2,660
Recurring Net Income	1,321	1,308	2,427	2,660
Recurring Net Income	,	1,308	2,427	2,660

Source: Company data, I-Sec Research

#### **Table 6: Balance Sheet**

	FY08P	FY09E	FY10E	FY11E
Assets				
Total Current Assets	12,216	10,947	11,474	12,364
of which cash & cash eqv.	2,831	1,425	1.620	2,199
Total Current Liabilities &	2,007	1,120	1,020	2,700
Provisions	2.973	3.046	3,189	3,308
Net Current Assets	9,243	7,901	8,285	9,056
Investments	-,	.,	-,	-,
of which	3,660	3,660	3,660	3,660
Strategic/Group	3.653	3,653	3,653	3,653
Other Marketable	6	6	6	6
Net Fixed Assets	21,785	26,033	24,858	23,287
of which				
intangibles	-	-	-	-
Capital Work-in-Progress	5,691	4,051	2,051	751
Goodwill	63	63	63	63
Total Assets	34,687	37,593	36,803	36,003
Liabilities				
Borrowings	20,472	22,947	20,947	18,947
Deferred Tax Liability	2,844	2,844	2,844	2,844
Minority Interest	-	-	-	-
Equity Share Capital	4,162	4,162	4,162	4,162
Face Value per share (Rs)	10	10	10	10
Reserves & Surplus*	7,220	7,651	8,861	10,060
Less: Misc. Exp. #	11	11	11	11
Net Worth	11,370	11,801	13,011	14,211
Total Liabilities	34,687	37,593	36,803	36,003

Source: Company data, I-Sec Research

#### **Table 7: Cash Flow Statement**

· · · · · · · · · · · · · · · · · · ·	FY08P	FY09E	FY10E	FY11E				
Operating Cash flow	2,505	3,420	4,801	5,176				
Working Capital Changes	638	(64)	(190)	(192)				
Capital Commitments	(1,788)	(6,460)	(1,300)	(1,048)				
Free Cash Flow	1,356	(3,104)	3,310	3,936				
Cash flow from Investing								
Activities	347	100	101	104				
Issue of Share Capital	-	-	-	-				
Buyback of shares	-	-	-	-				
Inc (Dec) in Borrowings	173	2,475	(2,000)	(2,000)				
Dividend paid	(876)	(876)	(1,217)	(1,461)				
Extraordinary Items	717	-	-	-				
Chg. in Cash & Bank balance	1,724	(1,406)	194	579				
Source: Company data, I-Sec Re	esearch	Source: Company data, I-Sec Research						

Table 8: Key Ratios

#### (Year ending March 31) FY08P FY09E FY10E FY11E Per Share Data (in Rs.) Diluted Recurring EPS 3.2 3.1 5.8 6.4 EPS(Basic Recurring) 3.2 3.1 5.8 6.4 Recurring Cash EPS 7.6 8.5 11.8 12.7 Dividend per share (DPS) 1.8 1.8 2.5 3.0 Book Value per share (BV) 27.3 28.4 31.3 34.1 Growth Ratios (%) 5.0 Operating Income 5.2 4.7 3.7 EBITDA (5.2) 21.0 30.5 3.8 Recurring Net Income (1.0) 1.7 85.6 9.6 Diluted Recurring EPS 1.7 (1.0) 85.6 9.6 **Diluted Recurring CEPS** 39.3 7.7 1.4 11.0 Valuation Ratios (x) P/E 25.0 25.3 13.6 12.4 P/CEPS 6.3 10.4 9.4 6.8 P/BV 2.9 2.8 2.5 2.3 EV / EBITDA 7.6 11.6 10.3 6.9 EV / Operating Income 1.9 1.9 1.7 1.6 EV / Operating FCF 16.1 10.0 16.3 11.4 **Operating Ratio (%)** Raw Material/Sales 61.3 58.5 52.8 52.0 Other Income / PBT 26.2 7.6 4.2 3.9 Effective Tax Rate 32.6 28.7 28.4 28.3 NWC / Total Assets 18.5 17.2 18.1 19.0 Inventory Turnover (days) 62.1 61.3 65.4 65.0 Receivables (days) 75.6 73.7 73.7 73.7 Payables (days) 19.3 19.7 21.9 22.2 D/É Ratio 205.1 218.5 182.9 153.3 Return/Profitability Ratio (%) **Recurring Net Income Margins** 4.9 4.6 8.1 8.6 RoCE 5.7 6.3 8.7 9.2 RoNW 12.3 11.3 19.6 19.5 **Dividend Pavout Ratio** 36.8 57.3 42.9 46.9 **Dividend Yield** 2.3 2.3 3.1 3.8 **EBITDA Margins** 16.1 18.5 23.1 23.1

Source: Company data, I-Sec Research

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### **Equity Research** June 11, 2008

BSE Sensex: 15185

## **INDIA**

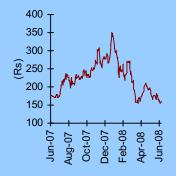


#### **Gujarat State Fertilisers & Chemicals** BUY

## **Fertilisers**

Shareholding			
	Sep '07	Dec '07	Mar '08
Promoters	37.8	37.8	37.8
Institutional			
investors	31.6	33.3	32.0
MFs and UTI	10.4	10.4	10.7
Insurance Cos.	12.8	13.4	13.1
FIIs	8.4	9.5	8.3
Others	30.6	28.8	30.1
Source: CMIE			

#### **Price chart**



## Force to be reckoned

**Rs161** 

Reason for report: Initiating coverage

Gujarat State Fertilisers & Chemicals' (GSFC) impressive chemicals portfolio, including caprolactum, provides stability to earnings. Further, with the on-and-off closure owing to severe financial distress of Fertilisers & Chemicals Travancore (FACT), GSFC's only competitor, coupled with its de-bottlenecking, earnings are likely to improve. Foray in methanol would further boost earnings. Also, improved gas availability at stable prices in India would sweeten the methanol venture as methanol prices reflect rising international gas prices. GSFC is the second-largest di-ammonium phosphate (DAP) manufacturer in India and would gain from assured raw material supply from Tunisia. We initiate coverage with BUY recommendation and target price of Rs263/share in the next 12-18months.

- **Methanol foray to boost profits** with capacity of 0.13mtpa at Rs2.6bn capex; production is likely to commence from December '09. Given robust international methanol prices, strong demand and improved gas availability in India (cheap & stable prices), the methanol venture would boost the bottomline in FY11.
- Caprolactum de-bottlenecking, another ace up the sleeve. Caprolactum, the key chemical for GSFC, forming ~60% of the chemicals business, enjoys stable prices. On-and-off closure due to severe financial distress of FACT, GSFC's only competitor in India, has created space for the company to expand capacity via debottlenecking. GSFC is spending Rs0.9bn for de-bottlenecking. Increased capacity (additional 10% of current capacity) would boost the bottomline.
- JV in Tunisia to assure higher utilisation of DAP plant. GSFC has entered into a JV for phosphoric acid facility in Tunisia to assure availability of raw material for the DAP plant. This would help the company gain through higher utilisation.
- Valuation Deep value. GSFC trades at FY09E & FY10E P/E of 4.2x & 4.1x respectively. We favour GSFC's chemicals portfolio owing to high growth outlook and value the business at FY10E P/E of 6x or Rs224/share. We value the investment book at 50% discount to market price at Rs39/share. Initiate coverage with BUY recommendation and target price of Rs263/share.

Market Cap	Rs12.8bn/US\$300mn	Year to Mar	FY08P	FY09E	FY10E	FY11E
Reuters/Bloomberg	GSFC.BO/GSFC IN	Revenue (Rs mn)	35,577	46,394	57,577	65,686
Shares Outstanding (m	in) 80	Net Income (Rs mn)	2,384	3,077	3,164	3,795
52-week Range (Rs)	349/156	EPS (Rs)	29.9	38.6	39.7	47.6
Free Float (%)	62.2	% Chg YoY	(14.9)	29.0	2.8	19.9
FII (%)	8.3	P/E (x)	5.4	4.2	4.1	3.4
Daily Volume (US\$'000	) 660	CEPS (Rs)	47.8	56.8	58.8	68.5
Absolute Return 3m (%	b) (19.4)	EV/E (x)	3.9	3.2	3.5	2.8
Absolute Return 12m (	%) (66.7)	Dividend Yield	2.8	3.4	3.4	3.7
Sensex Return 3m (%)	(5.8)	RoCE (%)	10.0	12.4	11.5	12.2
Sensex Return 12m (%	o) 7.5	RoE (%)	16.3	18.2	16.2	16.9

## Methanol foray to boost profits

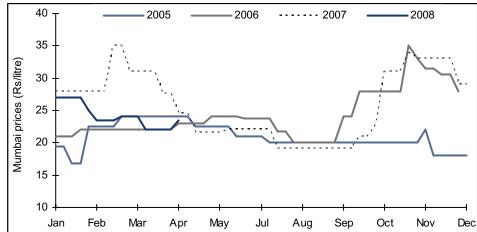
#### Methanol foray with Rs2.6bn capex for setting 0.13mnte capacity

GSFC's foray in methanol will be at Rs2.6bn capex (source: *Vibrant Gujarat*) for setting up annual capacity of 0.13mntein at its Baroda plant. As per the last annual report, the operation is likely to commence by December '09. We believe that given the current vibrant methanol market, this project would boost profitability post commencement in FY11. The company is claiming to have a tie-up with a reputed gas supplier for gas supplies. The proposed methanol plant would be integrated with GSFC's petrochemical complex. The company is modelling its complex on a similar complex operated by its associate, Gujarat Narmada Valley Fertilizers (GNFC).

#### Strong methanol demand leading to increased methanol prices

Indian market prices are driven by international prices. Strong global methanol demand has driven international methanol prices. Global methanol demand CAGR has been at 4.7% through 1995-'07 and will likely be 4.5% through '07-12 as per Chemical Market Associates (CMAI). The current global demand of 40mnte (mainly driven by consumption in MTBE, formaldehyde acetic, gasoline and DME) is likely to reach 48mnte by FY12E. The total demand for methanol is ~0.9mnte and the total capacity in India is at ~0.4mnte; the rest is met through imports.

#### Chart 1: Methanol prices rise sharply following strong global demand



Source: Chemical Weekly, I-Sec Research

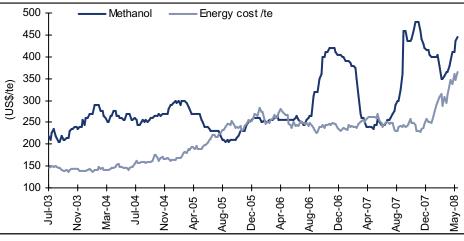
Methanol prices follow a seasonal trend. They surge in the winters and dip during summers; however, since the past two years global prices have risen sharply owing to strong demand and rising energy cost. The average cost of production in India is ~US\$250/te of methanol at gas cost of US\$8/mmbtu. The average realisation for the past year has been ~US\$550/te. On a conservative note, US\$200/te margin would result in ~Rs700mn boost to PAT.

Methanol prices are seasonal, but pricing scenario has improved in the past two years

## Methanol's profitability cyclical but improved gas supply in India to control cost

Methanol's profitability depends on natural gas price and methanol price. Globally, the profitability of methanol is cyclical; however, in India we believe that post KG-basin supplies, gas prices would be stable and GSFC would gain from higher international prices driven by higher energy prices and strong methanol demand (though this is subject to benign gas pricing policy). Also, owing to integrated facility at Baroda, overhead and other utility costs would be lower, boosting the profitability of the methanol venture.

#### Chart 2: Methanol's global profitability cyclical



Profitability to be maintained via controlled gas prices in India post KG basin gas supply

Source: Bloomberg, I-Sec Research

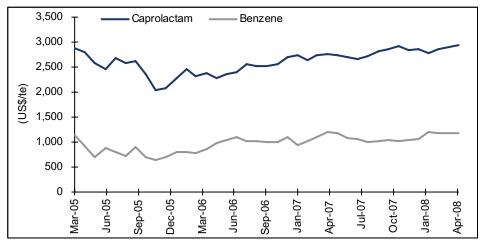
## Caprolactum enjoys near monopoly domestically

Caprolactum and other benzene derivative are critical to GSFC's current portfolio Caprolactum and other benzene derivatives (cyclohexanone, nylone-6) are the critical industrial chemicals used by GSFC and form ~80% of total revenues of the chemicals business. Caprolactum is mainly used for textile yarn, tyre cord, monomer-casting and as specialty chemicals for the textiles and leather industry.

## Strong profitability, near monopoly and de-bottlenecking to boost profits

Caprolactum is highly profitable with 20-25% EBIT and significantly contributes to GSFC's profitability. Further, with the closure of the only domestic competitor, FACT owing to financial distress in other businesses, GSFC enjoys near monopoly in the domestic market. The company is incurring ~Rs1bn for capacity de-bottlenecking to capitalise on strong demand and the vacuum created by FACT's closure. We expect de-bottlenecking to enhance capacity ~10%. GSFC prices chemicals closer to landed prices of imported material to capture domestic demand. We believe post the Government support, FACT may restart the caprolactum plant, but its continuance would be questionable considering the deep financial distress.

#### Chart 3: Stable caprolactum price providing stability to earning



Source: Bloomberg, I-Sec Research

#### Strong global demand and price rise to offset cost pressure

Global production of caprolactum crossed 4mnte in '06 and demand in East Asia, including South Korea, Taiwan and China is likely to remain strong. China's demand has been expanding at an annual growth rate of 7.5% annually. With the rapidly growing Chinese market, regional capacity utilisation is likely to touch 95% by '08 even with new plants and expansions. Demand in the US, Europe, and Japan is expected to grow 2-3% per year. We believe caprolactum prices would remain firm and any significant increase in price of benzene (~50% of caprolactum price) would be passed on to the customer.

Positives for GSFC are closure of the only domestic competitor (to boost volume) and debottlenecking (to meet demand)

Stable caprolactum prices led by robust demand to enable pass on of any rise in input cost, ensuring stable margin

Strong demand from China to ensure higher capacity utilisation and input cost pressure to be passed on to the customer

# Assured raw material supply from Tunisia JV to improve DAP utilisation

GSFC is the second largest DAP manufacturer in India

GSFC is the second largest DAP manufacturer in India, contributing  $\sim$ 12% to the active capacity. DAP is regulated fertiliser, wherein farm gate prices are fixed at Rs9,350/te.

#### Profitability dependent on Government policy

Profitability remains largely dependent on Government subsidy formula DAP is regulated fertiliser and the difference between MRP and the cost of production is reimbursed in the form of subsidy. Similar to other fertilisers, the prices of DAP have not been changed in the past six years. The critical point for DAP manufacturing depends on the availability of phosphoric acid. Notably, India does not have suitable rock phosphate reserves. This leads to dependence on import of rock phosphate/phosphoric acid in India. Globally, owing to huge demand of phosphoric acid in the US, there has been huge price rise and non-availability of phosphoric acid. We believe players with assured availability of phosphoric acid would enjoy the benefit of higher utilisation.

#### Tunisia JV to help assure raw material availability

Assured raw material supply from Tunisia JV to improve utilisation

Subsidy formula delayed for the

current year but

likely to be in line

with previous year

GSFC along with Coromandel Fertilisers (CFL) has entered into a JV for setting up a phosphoric acid plant in Tunisia to ensure phosphoric acid supply to the DAP plant at its unit at Sikka. This project would cost ~US\$515mn and it is likely that GSFC and CFL would hold 15% each in the JV. We believe that financial closure would be achieved during the current financial year and the plant should become operational in 18-24 months with 0.36mnte capacity. Tunisia JV would be a major driver for availability of phosphoric acid and the project is expected to be commissioned by end '09. This will help meet the demand of phosphoric acid and would be positive for GSFC.

#### Fertiliser industry awaits DAP subsidy formula

DAP subsidy formula for FY08-09 is awaited. Key reason behind this is the three fold rise in key raw material price of phosphoric acid from last year's US\$566/te to ~US\$2,000/te. We believe the current policy would continue and the Government is likely to set the subsidy formula similar to previous year. The policy is likely to change for domestic manufacturers of phosphoric acid based on imported rock phosphate, but this would not have major impact on GSFC owing to insignificant proportion of the total production being produced via rock phosphate route in Baroda unit. Sikka unit is fully based on imported phosphoric acid. India imported ~2.5mt of phosphoric acid annually from Morocco, Tunisia, Senegal, South Africa apart from the US. More details on the new subsidy regime (not yet officially notified by the Government) are expected by June end.

# Impressive return and deep value in investment portfolio

#### Higher RoE commands premium valuation

GSFC's RoE is better compared with peers. The company's RoE will likely be in 16-19% range during FY08-11E, much higher than peers owing to better product mix and strong profitability driven by the chemical business.

#### Table 1: Impressive RoE

GSFC has a better return profile vis-àvis peers

	FY08P	FY09E	FY10E	FY11E
GSFC	16.3	18.2	16.2	16.9
RCF	10.6	10.4	12.3	13.5
Chambal	12.3	11.0	19.0	19.1
Nagarjuna	2.0	2.5	6.6	9.1

Source: I-Sec Research

#### Deep value in investment

GSFC has significant holding in Gujarat Narmada Valley Fertilizers Company (GNFC) and Gujarat Industries Power Company (GIPC) and minor holding in Gujarat State Petroleum Corporation (GSPC). Per share value of investment in terms of the current market price is Rs78/share.

#### Table 2: Attractive investment portfolio

4,075
1,647
476
6,198

Source: Bloomberg, Company data

#### Attractive dividend yield

GSFC gives an attractive dividend yield of  $\sim$ 3% which makes it an attractive option for investors. In FY08, the company will pay Rs4.5/share as dividend.

Deep value in investment portfolio

## Valuations – Deep value

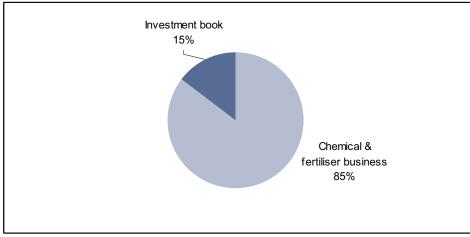
At the current market price, GSFC is valued at FY09E & FY10E P/E of 4.2x and 4.1x and EV/E of 3.2x & 3.5x respectively. If we factor in the investment at a deep discount of 50% of the market price, the stock is trading at FY09E & FY10E adjusted P/E of 3.17x and 3.08x respectively. With robust project pipeline and good execution capability, we are positive on the stock .We favour the chemical portfolio of GSFC and value the business of the company at 6x FY10E P/E. We initiate coverage with BUY recommendation and target price of Rs263/share.

#### **Table 3: Attractive SOTP valuations**

	Value (Rs mn)	Value per share (Rs)	
Chemical & fertiliser business	17,846	224	Valued at 6x FY10 PAT after discounting dividend income generated from investment book
Investment book	3,099	39	Valued at 50% discount
	20,945	263	

Source: I-Sec Research

#### Chart 4: Valuations driven by core business



Source: I-Sec Research

### **Financial Summary**

#### Table 4: Profit and Loss Statement

(Rs mn, year ending March 31)

7 65,686
58,677
7 7,008
1 11
2 1,662
2 652
6 845
9 5,540
5 1,745
4 3,795
4 3,795

Source: Company data, I-Sec Research

#### Table 5: Balance Sheet

(Rs mn, year ending March 31)

	FY08P	FY09E	FY10E	FY11E
Assets				
Total Current Assets	18,888	24,344	27,552	31,497
of which cash & cash eqv.	3,057	3,003	1,355	1,611
Total Current Liabilities &				
Provisions	6,010	7,807	9,665	11,014
Net Current Assets	12,878	16,537	17,887	20,484
Investments				
of which	1,393	1,393	1,393	1,393
Strategic/Group	1,288	1,288	1,288	1,288
Other Marketable	105	105	105	105
Net Fixed Assets	12,754	12,658	14,961	13,599
of which				
intangibles	7	7	7	7
Capital Work-in-Progress	62	248	62	62
Goodwill	-	-	-	-
Total Assets	27,025	30,589	34,240	35,475
Liabilities				
Borrowings	8,148	9,148	10,148	8,148
Deferred Tax Liability	3,260	3,260	3,260	3,260
Minority Interest	-	-	-	-
Equity Share Capital	797	797	797	797
Face Value per share (Rs)	10	10	10	10
Reserves & Surplus*	14,820	17,384	20,035	23,270
Less: Misc. Exp. #	-	-	-	-
Net Worth	15,617	18,181	20,832	24,067
Total Liabilities	27,025	30,589	34,240	35,475

\*excluding revaluation reserves; # not written off

Source: Company data, I-Sec Research

#### **Table 6: Cash Flow Statement**

(Rs mn, year ending March 31)				
· · · · · ·	FY08P	FY09E	FY10E	FY11E
Operating Cash flow	3,008	3,716	3,860	4,612
Working Capital Changes	43	(3,712)	(2,998)	(2,341)
Capital Commitments	(820)	(1,356)	(3,825)	(300)
Free Cash Flow	2,230	(1,352)	(2,962)	1,971
Cash flow from Investing	801	812	826	845
Activities				
Issue of Share Capital	-	-	-	-
Buyback of shares	-	-	-	-
Inc (Dec) in Borrowings	(1,500)	1,000	1,000	(2,000)
Dividend paid	(359)	(438)	(438)	(478)
Extraordinary Items	-	-	-	-
Chg. in Cash & Bank balance	1,112	(53)	(1,649)	256

Source: Company data, I-Sec Research

#### **Table 7: Key Ratios**

(Year ending March 31)				
	FY08P	FY09E	FY10E	FY11E
Per Share Data (Rs)			~~ -	
Diluted Recurring EPS	29.9	38.6	39.7	47.6
EPS(Basic Recurring)	29.9	38.6	39.7	47.6
Recurring Cash EPS	47.8	56.8	58.8	68.5
Dividend per share (DPS)	4.5	5.5	5.5	6.0
Book Value per share (BV)	196.0	228.1	261.4	302.0
Growth Ratios (%)				
Operating Income	7.2	30.4	24.1	14.1
EBITDA	(4.4)	26.0	4.5	14.1
Recurring Net Income	(14.9)	20.0	2.8	19.9
Diluted Recurring EPS	(14.9)	29.0	2.8	19.9
Diluted Recurring CEPS	(14.9)	18.9	2.0 3.5	16.4
Diluted Recurring CEFS	(9.9)	10.9	5.5	10.4
Valuation Ratios (x)				
P/E	5.4	4.2	4.1	3.4
P/CEPS	3.4	2.8	2.7	2.4
P/BV	0.8	0.7	0.6	0.5
EV / EBITDA	3.9	3.2	3.5	2.8
EV / Operating Income	0.5	0.4	0.4	0.3
EV / Operating FCF	5.9	NA	25.1	8.5
<b>3</b>				
Operating Ratio (%)				
Raw Material/Sales	59.6	68.5	72.2	71.9
Other Income / PBT	33.6	26.4	26.1	22.3
Effective Tax Rate	33.4	31.5	31.5	31.5
NWC / Total Assets	36.3	44.2	48.3	53.2
Inventory Turnover (days)	85.7	74.6	70.8	71.1
Receivables (days)	86.7	95.1	95.5	95.3
Payables (days)	65.9	57.0	53.9	54.1
D/E Ratio	73.1	68.2	64.4	47.4
	0.7			5.0
0 0				
	-	12.6	10.6	10.7
Return/Profitability Ratio (%) Recurring Net Income Margins RoCE RoNW Dividend Payout Ratio Dividend Yield EBITDA Margins Source: Company data. I-Sec Re	6.7 10.0 16.3 15.0 2.8 13.1	6.6 12.4 18.2 14.2 3.4 12.6	5.5 11.5 16.2 13.9 3.4 10.6	5.8 12.2 16.9 12.6 3.7 10.7

Source: Company data, I-Sec Research

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## Nagarjuna Fertilisers & Chemicals SELL

## **Futile opportunity**

**Rs43** 

Reason for report: Initiating coverage

Nagarjuna Fertilisers & Chemicals (Nagarjuna), one of the largest urea manufacturers in India, has location advantage with proximity to gas reserves, which we believe the company may not be able to capitalise on. This is due to the surplus land being occupied by mangroves (protected land, needs Supreme Court-SC approval) and, hence, which can not be used for expansion. Mammoth investments over a decade in the company's oil refining subsidiary, Nagarjuna Oil Corporation (NOCL), have not fructified due to non-completion of financial closure, which the company may achieve in the short term. Post de-bottlenecking, returns are likely to improve, albeit unattractively. We initiate coverage with SELL recommendation and price target of Rs28/share in the next 12-18 months.

- Location advantage and surplus land Lost opportunity. Nagarjuna's urea plant is located at Kakinada, 15km from KG-basin gas reserves, which is advantageous owing to lower transportation-cost of gas. However, it would be unable to capitalise on this as the plant's ~650acre surplus land cannot be used for expansion owing to mangroves, for the removal of which the company would need the SC's approval.
- De-bottlenecking Only possible growth driver. Nagarjuna is de-bottlenecking its urea plant, which would increase plant capacity to 1.55mtpa from 1.35mtpa at present. This would also help in the changeover of unit II from part-gas, part-naphtha to gas totally, complying with the new pricing scheme (NPS)-3. This seems to be the only growth driver and would boost PAT 0.9bn. Further, de-bottlenecking would result in energy efficiency and save Rs74mn per annum.
- Refinery venture Delayed by a decade. Nagarjuna has invested ~Rs7bn in NOCL over the past decade; financial closure is likely to be achieved in the near future. We have valued the venture at book value as investors such as the Tata Group and Sunterra have picked up stake in the proposed refinery. We may upgrade our valuations for the project based on further progress.
- Expensive valuations. Nagarjuna trades at adjusted FY09E and FY10E P/E of 50x and 18.2x. We have valued the core business at FY10 P/E of 8x due to unimpressive returns and low project execution track record. Further, we have valued the refinery investment at book value. We initiate coverage with SELL recommendation and target price of Rs28/share in the next 12-18 months.

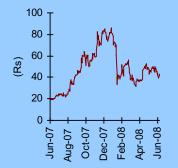
Market Cap	Rs18.5b	on/US\$432mn	Year to Mar	FY08P	FY09E	FY10E	FY11E
Reuters/Bloomberg	NGFR	BO/NFCL IN	Revenue (Rs mn)	21,936	24,158	24,930	25,787
Shares Outstanding (	mn)	428	Net Income (Rs mn)	177	232	637	946
52-week Range (Rs)		86/19	EPS (Rs)	0.4	0.5	1.5	2.2
Free Float (%)		64.7	% Chg YoY	(44.3)	31.6	174.2	48.5
FII (%)		7.4	P/E (x)	104.5	79.4	29.0	19.5
Daily Volume (US\$'00	00)	27,000	CEPS (Rs)	3.2	3.5	4.7	5.5
Absolute Return 3m (	%)	1.7	EV/E (x)	11.3	11.0	8.8	7.7
Absolute Return 12m	(%)	107.7	Dividend Yield	-	-	-	-
Sensex Return 3m (%	5)	(5.8)	RoCE (%)	5.6	6.7	8.4	9.4
Sensex Return 12m (	%)	7.5	RoE (%)	2.0	2.5	6.6	9.1

## **Fertilisers**

S	Shareholding pattern									
Sep Dec '07 '07										
	Promoters Institutional	35.3	35.3	35.3						
	investors	15.6	18.5	11.6						
	MFs and UTI	2.9	1.9	1.9						
	Insurance Cos.	2.4	2.1	2.3						
	FIIs	10.3	14.5	7.4						
	Others	49.1	46.3	53.2						

Source: CMIE

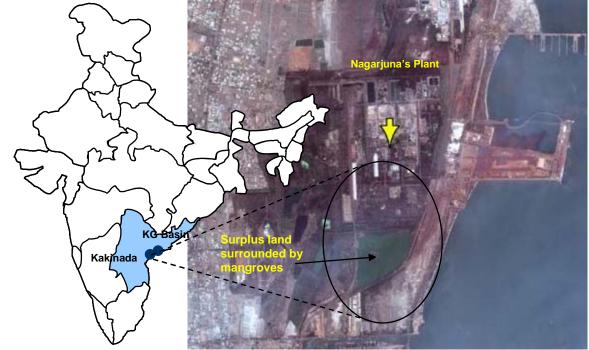




## Location advantage & surplus land – Lost opportunity

Nagarjuna's urea plant is located at Kakinada, closer to the KG basin gas reserve Nagarjuna's location of its urea plant at Kakinada (closer to KG basin gas reserves) places the company at an advantage. The company stands to gain from the proposed policy change owing to less transportation cost and, hence, lower landed cost of gas. Notably, the gas cost is a pass-through cost in the current policy regime; however, in the proposed policy situation on new capacity, energy cost would not be a pass-through cost and thus impact profitability.

#### Chart 1: Kakinada plant location - Lost opportunity



Source: Google Map, I-Sec Research

The KG basin gas reserves are ~15km from the plant location, which provides cost advantage of ~US\$1/mmbtu over other urea plants in India, translating into a benefit of ~Rs800/te of urea for additional capacity over other urea plant.

#### Surplus land – Not an advantage

Nagarjuna has ~650 acres of surplus land in the plant premise, which could have been used for brownfield expansion. Given its proximity to gas reserves, this could have been a major value driver for the company. However, the surplus land cannot be used for any brownfield expansion as the company needs the SC's approval for any kind of development or expansion as the land is occupied by mangroves, which is protected land.

Surplus land is surrounded by mangroves and, hence, cannot be used for brownfield expansion

## **De-bottlenecking – Only possible growth driver**

#### De-bottlenecking to increase urea capacity 15%

Nagarjuna is de-bottlenecking its urea plant tat would increase capacity to 1.55mnte from 1.35mnte at present. Cost of project is ~Rs2bn, which will be funded through a debt-to-equity ratio of 70:30. The project is likely to be completed by October '09, based on which we have done our earnings estimate.

#### Table 1: Benefit of de-bottlenecking in proposed policy

Capital cost (mtpa)	250	Total capital cost is Rs2bn for the de-bottlenecking project.
Cost of gas (mmbtu)	5.0	Proximity to gas reserve would lead to lower transportation and tax
		cost. We have taken current well-head price of US\$4.2/mmbtu
Cost of gas (Gcal)	19.8	1mmbtu=0.252 Giga calories (Gcal)
Energy required per tonne of	5.6	Post de-bottlenecking, energy efficiency would improve from current
urea		5.66Gcal/te to 5.6Gcal/te
Energy cost of urea	111	
Other production expenses	30	
Depreciation	14	
Other cost	15	On a conservative basis, we have added US\$15/te cost, to factor any
		change in policy
Cost	170	
Expected price, based on	360	As international fertiliser prices are over US\$650/te, we have factored
proposed policy		in realisations at the cap rate proposed in the policy
PBIT	190	
Debt-to-equity	2:1	Internal accruals would not be sufficient for Nagarjuna to fund de-
		bottlenecking
Rate of interest	12%	
Interest	19.8	
PBT	170	
PAT	112	Assumed normal tax for de-bottlenecking
Increase in capacity (mnte)	0.2	
Benefit at PAT level (Rs mn)	899	

Source: Company data, I-Sec Research

## Proposed de-bottlenecking to facilitate 100% switch to natural gas in unit II as mandated by NPS-3

NPS-3 has mandated 100% switch to natural gas from expensive fuel by FY10. Nagarjuna's unit II at Kakinada is dual-feed based and currently uses naphtha and natural gas. Totally shifting to natural gas would create deficit of carbon in the production process as naphtha is a carbon-rich fuel compared with natural gas (in India, only lean gas would be supplied as carbon-rich component would be cracked and extracted by the gas supplier). To cope with the carbon deficit in the process, the company needs to set up an additional plant for collection of carbon during production. The proposed de-bottlenecking project would take care of the carbon deficit also.

#### Energy efficiency to improve marginally

Consequent to change of parts during the de-bottlenecking process, the plant's energy efficiency would improve. Post de-bottlenecking, the energy required per tonne would improve to 5.6Gcal/te from 5.66Gcal/te at present. As per the current policy – NPS-3, energy efficiency over & above the set norms, would be passed on to the companies. This energy efficiency would lead to annual benefit of Rs73.9mn at the PBT level.

De-bottlenecking can boost profit of Nagarjuna by Rs899mn annually under the proposed policy, ~4x of FY08 PAT.

Nagarjuna is de-

bottlenecking its

plant that would

increase capacity by 0.2mnte

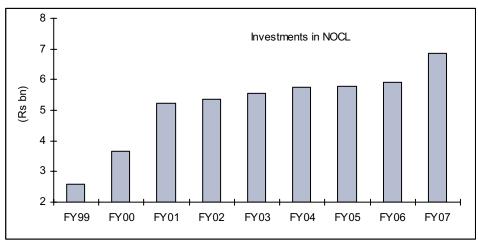
Proposed debottlenecking would also lead to switch to gas for unit 2 as mandated by NPS-3

#### Table 2: Benefit through energy efficiency

	<b>o o</b> , <b>,</b>	
Energy efficiency	Energy cost in FY11 (Rs/Gcal)	787
would improve	Energy efficiency (Gcal/te)	0.06
	Production (mnte)	1.57
marginally 0.06Gcal/te	Energy saved (mn Gcal)	0.09
post de-bottlenecking	Savings (Rs mn)	73.9
	Source: Company data, I-Sec Research	

# Nagarjuna Oil Corporation – Delay by a decade, project yet to fructify

NOCL, a 100% subsidiary of Nagarjuna, is in the process of installing (relocating a refinery from Germany) 6mnte refining capacity at Cuddalore in Tamil Nadu. This ambitious project was taken over from Pennar Refineries in the late 1990s. This project has not been able to achieve debt financial closure even in the past 10 years, thereby causing ballooning of investment without any returns so far. We believe that the financial closure of debt component would be achieved shortly.



#### Chart 2: Investments over a decade yet to deliver

Nagarjuna has invested Rs7bn in past decade and debt financial closure is yet to be achieved

Source: Company data, I-Sec research

#### Small size of refinery to impact profitability

As per the company, the competitive advantages of this project are:

- Location in the area that is deficit in petroleum products
- Easy access to metropolitan cities in the southern region via rail and road
- Single buoy mooring to help import crude through very large crude carriers
- Jetty with two berths capable of handling up to 65,000DWT tankers for exports/coastal movement ideal location for exports to SAARC and Southeast Asian countries
- Refinery with high distillate yield capable of producing value-added products that are in high demand

• Infrastructure facilities provide scope for further expansion of refining capacity

However, we believe that refinery business profitability depends on scale and complexity. Given low scale of the company's project (at 6mnte), we believe that returns from the project would be low.

Project has certain advantages, yet its small size could be an issue and lead to lower refinery margins

#### Refinery to be relocated from Germany

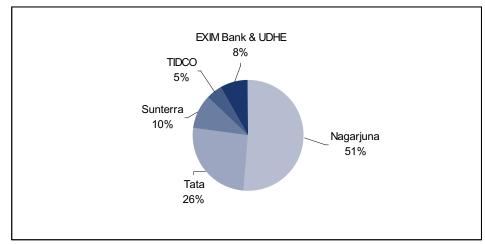
The project envisages setting up facilities to refine 6mtpa of crude by relocating a refinery from Germany and adding new process units, offsites and utilities. Further, crude receipt and product evacuation facilities have also been planned. On completion, the refinery project will produce Euro IV auto fuels such as petrol and diesel besides products such as LPG and bitumen. All statutory clearances required for setting up the refinery and marine facilities have been obtained.

#### Financial closure of equity achieved

Total refinery project cost is ~Rs48bn, of which equity component is ~Rs14bn. Financial closure of the equity component has been achieved and Nagarjuna has been able to obtain partners such as the Tata Group and Sunterra, giving comfort that debt financial closure is likely to be achieved within a reasonable timeframe. The plant would be operational within 33 months from debt financial closure.

#### Chart 3: Equity stake breakup in NOCL

Equity investment at BV by the Tata Group, Sunterra, EXIM Bank etc provide comfort on viability of project



Source: Company data, I-Sec research

#### Nagarjuna not likely to make further investments

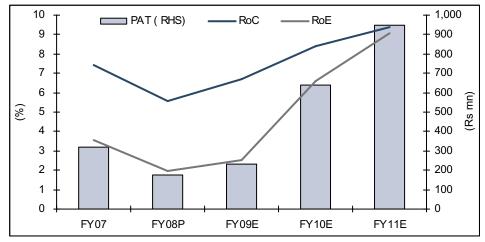
Nagarjuna not expected to invest further in the project Nagarjuna has already invested its share of equity and is unlikely to invest further in the refinery project.

# Returns to improve post de-bottlenecking, but still unattractive

#### **De-bottlenecking to improve returns**

The proposed de-bottlenecking would improve FY10 and FY11 returns of the company as the project would be complete by October '09. This would result in rise in RoE to respectable single digit from a less than 3% levels. However, de-bottlenecking being the only growth driver, we believe that such an improvement in earnings is not attractive.

#### Chart 4: Improving returns, but unattractive



Source: Company data, I-Sec Research

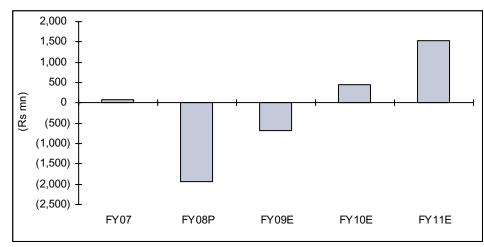
Expanding working capital and low profitability to impact FCF

#### Negative FCF and tightening debt market may cause delay in debottlenecking

The proposed de-bottlenecking would need an investment of Rs2bn. Notably, Nagarjuna has not been generating FCF on account of low profitability and expanding working capital due to subsidy delays. Prevalent tightness in the debt market coupled with low internal cash accrual may lead to delay in completion of the project as well as increase its cost.

#### Chart 5: Low FCFF may delay de-bottlenecking

Tightened debt market and low cash generation may lead to delay in debottlenecking



Source: Company data, I-Sec Research

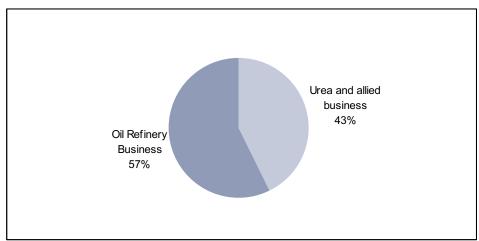
## **Expensive valuations**

At the current market price, Nagarjuna is valued at FY09E & FY10E P/E of 79.4x and 29.0x and EV/E of 11.0x & 8.8x respectively. If we discount the value of investment in NOCL at book value, the FY09E & FY10E adjusted P/E stands at 50.0x & 18.2x and adjusted EV/E stands at 8.8x & 7.1x respectively. We believe that the aforementioned investment should be valued at book value on account of other investors such as the Tata Group, Sunterra and EXIM Bank having bought stake at par value. We may upgrade our valuations for the project based on further progress. We believe that boost to profitability post de-bottlenecking would be the only growth driver for earnings. We have valued the core fertiliser business at FY10 P/E of 8x due to poor financial and low project execution track record and have valued the refinery investment at book value. We initiate coverage with SELL recommendation and a target price of Rs28/share.

#### Table 3: SOTP valuations

Value (Rs mn)	Value per share	Detail
5,097	12	Valued at a 8X of FY10E PAT
6,845	16	Valued at BV
11,942	28	
	(Rs mn) 5,097 6,845	(Rs mn)         share           5,097         12           6,845         16

Source: I-Sec Research



#### Chart 6: Significant value from investment in refinery

Source: I-Sec Research

## **Financial Summary**

#### **Table 4: Profit and Loss Statement**

(Rs mn, year ending March 31)

· · · ·	FY08P	FY09E	FY10E	FY11E
Operating Income (Sales)	21,936	24,158	24,930	25,787
Operating Expenses	18,902	20,970	21,027	21,547
EBITDA	3,034	3,189	3,903	4,241
% margins	13.8	13.2	15.7	16.4
Depreciation & Amortisation	1,202	1,266	1,395	1,408
Gross Interest	1,678	1,650	1,656	1,539
Other Income	198	71	69	70
Recurring PBT	353	343	922	1,363
Add: Extraordinaries	-	-	-	-
Less: Taxes	176	111	284	417
Minority Interest	-	-	-	-
Net Income (Reported)	177	232	637	946
Recurring Net Income	177	232	637	946
0	a si si si si la			

Source: Company data, I-Sec Research

#### **Table 5: Balance Sheet**

(Rs mn, year ending March 31)				
	FY08P	FY09E	FY10E	FY11E
Assets				
Total Current Assets	9,955	10,565	10,828	11,024
of which cash & cash eqv.	211	192	200	113
Total Current Liabilities &	2,735	3,012	3,109	3,216
Provisions				
Net Current Assets	7,219	7,553	7,719	7,809
Investments				
of which	7,072	7,072	7,072	7,072
Strategic/Group	7,072	7,072	7,072	7,072
Other Marketable	0	0	0	0
Net Fixed Assets of which	12,849	13,048	12,719	11,576
intangibles	-	-	-	-
Capital Work-in-Progress	205	1,405	205	205
Total Assets	27,141	27,673	27,510	26,457
Liabilities				
Borrowings	16,108	16,708	16,208	14,508
Deferred Tax Liability	1,949	1,649	1,349	1,049
Minority Interest	-	-	-	-
Equity Share Capital	4,284	4,284	4,284	4,284
Face Value per share (Rs)	10	10	10	10
Reserves & Surplus*	4,804	5,037	5,674	6,620
Less: Misc. Exp. #	-	-	-	-
Net Worth	9,084	9,316	9,953	10,900
Total Liabilities	27,141	27,673	27,510	26,457
*excluding revaluation recorves	# not writt	on off		

\*excluding revaluation reserves, # not written off Source: Company data, I-Sec Research

#### **Table 6: Cash Flow Statement**

(Rs mn, year ending March 31)							
	FY08P	FY09E	FY10E	FY11E			
Operating Cash flow	864	1,112	1,647	1,970			
Working Capital Changes	(2,885)	(353)	(158)	(176)			
Capital Commitments	83	(1,450)	(1,050)	(250)			
Free Cash Flow	(1,937)	(690)	439	1,543			
Cash flow from Investing							
Activities	198	71	69	70			
Issue of Share Capital	0	0	0	0			
Buyback of shares	-	-	-	-			
Inc (Dec) in Borrowings	1,800	600	(500)	(1,700)			
Dividend paid	-	-	-	-			
Extraordinary Items	-	-	-	-			
Chg. in Cash & Bank balance	61	(19)	8	(87)			
Source: Company data, I-Sec Research							

#### **Table 7: Key Ratios**

(Year ending March 31)			=>// 0 =	
	FY08P	FY09E	FY10E	FY11E
Per Share Data (Rs)	~ .			
Diluted Recurring EPS	0.4	0.5	1.5	2.2
EPS(Basic Recurring)	0.4	0.5	1.5	2.2
Recurring Cash EPS	3.2	3.5	4.7	5.5
Dividend per share (DPS)	-	-	-	-
Book Value per share (BV)	21.2	21.8	23.2	25.5
Growth Ratios (%)				
Operating Income	20.8	10.1	3.2	3.4
EBITDA	8.4	5.1	22.4	8.7
Recurring Net Income	(44.3)	31.6	174.2	48.5
Diluted Recurring EPS	(44.3)	31.6	174.2	48.5
Diluted Recurring CEPS	(11.6)	8.8	35.6	15.9
Valuation Ratios (x)				
P/E	104.5	79.4	29.0	19.5
P/CEPS	13.4	12.3	23.0 9.1	7.8
P/BV	2.0	2.0	1.9	1.7
EV / EBITDA	11.3	11.0	8.8	7.7
EV / Operating Income	1.6	1.4	1.4	1.3
EV / Operating FCF	(17.0)	46.0	23.1	18.3
	. ,			
Operating Ratio (%)			~~ -	
Raw Material/Sales	66.2	67.2	63.7	61.8
SG&A/Sales				
Other Income / PBT	112.4	30.8	10.8	7.4
Effective Tax Rate	50.0	32.3	30.9	30.6
NWC / Total Assets	35.9	35.2	34.9	36.1
Inventory Turnover (days)	46.7	43.5	45.9	47.2
Receivables (days)	91.3	91.3	91.3	91.3
Payables (days)	38.6	38.0	40.1	41.3
D/E Ratio	198.8	197.0	176.4	142.7
Return/Profitability Ratio (%)				
Recurring Net Income Margins	0.8	1.0	2.6	3.7
RoCE	5.6	6.7	8.4	9.4
RoNW	2.0	2.5	6.6	9.1
Dividend Payout Ratio	-	-	-	-
Dividend Yield	-	-	-	-
EBITDA Margins	13.8	13.2	15.7	16.4
Source: Company data I-Sec Re				

Source: Company data, I-Sec Research

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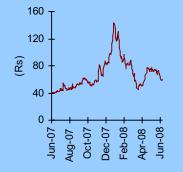


## **Rashtriya Chemicals & Fertilizers**

## **Fertilisers**

Shareholding pattern							
	Sep '07	Dec '07	Mar '08				
Promoters	92.5	92.5	92.5				
Institutional							
investors	1.9	2.2	2.4				
MFs and UTI	0.4	0.6	0.7				
Insurance Cos.	1.3	1.3	1.3				
FIIs	0.2	0.3	0.4				
Others	5.6	5.3	5.1				
Source: CMIE							





### Overdose of options

**Rs60** 

HOLD

Reason for report: Initiating coverage

Rashtriya Chemicals & Fertilizers (RCF), among the largest PSU players in urea, enjoys huge option value for its land bank and possible capital subsidy by the Government, making it expensive in terms of current earnings. We believe monetising real estate value in the short term would be difficult; however, this possibility cannot be ruled out. Also, capital subsidy by the Government for reviving closed plants can provide fillip. Completion of de-bottlenecking in the short term and improving utilisation post gas supply from the KG basin are likely triggers. We believe the stock enjoys immense option value, though related uncertainty looms. We initiate coverage with HOLD recommendation and 12month target price of Rs61/share.

- Huge land bank in Mumbai, but difficult to be monetised. RCF has 800 acres of land in Chembur (central location in Mumbai), which can yield Rs174bn even on conservative estimates. We believe monetisation of this land would be difficult in the near future as it needs approval from various Government departments, but the possibility cannot be ruled out.
- De-bottlenecking to improve profitability, but timelines unclear. RCF is contemplating a de-bottlenecking exercise in the Thal plant at Rs4.5bn capex. This will increase plant capacity 0.3mtpa and in the proposed policy scenario, would boost PAT Rs1.06bn. Owing to insufficient fund generation and lack of funding plan, the project may be delayed.
- Huge expansion plan, but lacking funds; probable capital subsidy to provide succour. RCF's huge capex at ~Rs107bn is not backed by a funding plan. Internal fund generation is too low to support such an expansion, for which the company has requested funding via capital subsidy from Government. We believe fiscal subsidy would be difficult, but if approved, this can be a windfall for existing shareholders.
- Improved gas availability to boost utilisation. We believe that with improved gas availability and supportive Government policy, the closed urea plant at Trombay with 0.33mtpa capacity would start operations and add Rs200mn to FY10E PAT.
- Huge option value; initiate with HOLD. We have assigned 10% option value to RCF's land bank, 10% option value to capital subsidy and FY10E PE of 6x for the fertiliser & chemicals business. We believe the stock is fully valued and initiate coverage with HOLD recommendation and target price of Rs61/share.

Market Cap	Rs33b	on/US\$773mn	Yea	ar to Mar	FY08P	FY09E	FY10E	FY11E
Reuters/Bloomberg	RST	C.BO/RCF IN	Re	venue (Rs mn)	51,404	54,295	58,763	62,732
Shares Outstanding (n	nn)	552	Net	Income (Rs mn)	1,585	1,661	2,102	2,495
52-week Range (Rs)		143/40	EP	S (Rs)	2.9	3.0	3.8	4.5
Free Float (%)		7.5	% (	Chg YoY	6.5	4.8	26.5	18.7
FII (%)		0.4	P/E	E (x)	20.9	19.9	15.7	13.2
Daily Volume (US\$'000	0)	2,300	CE	PS (Rs)	4.4	4.6	5.6	6.4
Absolute Return 3m (%	6)	(5.7)	EV	/E (x)	15.1	14.5	11.3	9.9
Absolute Return 12m (	(%)	47.9	Div	idend Yield	1.7	1.7	2.2	2.5
Sensex Return 3m (%)	)	(5.8)	Ro	CE (%)	7.3	7.4	8.6	9.2
Sensex Return 12m (%	6)	7.5	Ro	Ε(%)	10.6	10.4	12.3	13.5

# Huge land bank in Mumbai; unlikely to be monetised in short term

RCF has 800 acres land in Chembur, currently occupied by its chemicals & fertiliser plant RCF has a factory spread over 800 acres in Chembur, the centre of Mumbai. This land was allotted by the Government. At present, the chemical and fertiliser factory is situated on this land. On a conservative estimate, the land bank's valuation is at Rs174bn, almost 3x the current enterprise value of RCF.

#### Chart 1: Huge land bank in Chembur, Mumbai



Source: Google map, I-Sec Research

#### Table 1: Conservative valuation of the land bank at Rs174bn

Land bank (acre)	800
Land bank (mn sqft)	34.8
Sellable price at Chembur (Rs/sqft)	7,000
Development cost (Rs/sqft)	2,000
Net Land Value (Rs/sqft)	5,000
Value of land bank (Rs bn)	174

Even at conservative estimates, the land bank is valued 3x RCF's current EV

#### Development only for captive use allowed

RCF cannot develop land, but can rent only idle capacity At present, RCF can only develop land bank for captive use. At best unused property built for captive use can be rented at a later stage. The company is likely to earn ~Rs0.15bn per annum as rental from the newly constructed commercial building. RCF cannot develop further real estate unless it is clearly for captive use.

#### Monetisation unlikely in immediate future but cannot be ruled out

Monetisation unlikely, but can become value accretive for RCF Constrained by the limitations of being a public sector unit, RCF cannot gain from the land bank in the immediate future. But the sheer size of the opportunity is so large that monetisation cannot be ruled out. We assume a high discount to this and factor the land bank at 10% of its conservative value.

## De-bottlenecking to boost profits; timelines unclear

#### Thal unit – De-bottlenecking plans, to increase urea capacity 0.3mnte

De-bottlenecking to increase capacity 0.3mnte RCF is contemplating a de-bottlenecking exercise for its urea plant at Thal. This will increase capacity from the current 1.7mnte to 2mnte. The cost of the project is ~Rs4.5bn. We believe availability of fund for this project can be a concern and have factored in October '09 as the completion date for this project in our estimates.

#### Table 2: Benefits of de-bottlenecking in the proposed policy

De-bottlenecking to boost profit Rs1,059mn annually

US\$/te)		
Capital Cost	375	Total capital cost Rs4.5bn for de-bottlenecking
Cost of gas (mmbtu)	5.5	We have taken current well head price of US\$4.2/mmbtu and factored in tax and transportation cost
Cost of gas (Gcal)	21.8	One mmbtu = 0.252Gcal
Energy required per tonne of urea	6	Post de-bottlenecking, energy efficiency would improve; we have factored it at 6Gcal/te
Energy cost of urea	131	
Other production expenses	30	
Depreciation	21	
Other cost	15	
Cost	197	
Expected price based on proposed policy	360	international fertiliser price beyond US\$650/te, we have factored in realisation at the cap rate proposed by new policy
PBIT	163	
Debt-to-equity	2:1	We have assumed that internal accrual would not be sufficient for NFCL to fund de-bottlenecking
Rate of interest	12%	
Interest	29.7	
PBT	133.7	
PAT	88.3	We have assumed marginal tax as currently no incentive proposed in the policy
Increase in capacity (mnte)	0.30	
Benefit at PAT level ( Rs mn)	1,059	

Benefit at PAT level (Rs mn) Source: Company data, I-Sec Research

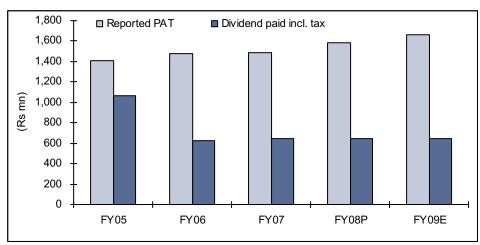
#### Funding for de-bottlenecking, a concern

Given low cash generation by the business and mandated payment of dividend, internal accrual cannot support this project. We believe the project may be delayed unless the Government decides to provide capital subsidy.

Given low internal

cash generation and

the mandate to pay



#### Chart 2: Mandate to pay dividend limiting ability to expand

Source: Company data, I-Sec Research

# Expansion plans but funds lacking, capital subsidy can be a booster

Huge expansion plan of ~Rs107bn. However, no clear funding plan to support such an expansion RCF has huge capex of ~Rs107bn. However, internal fund generation is low to support such an expansion. We understand that the company has been willing to invest Rs1-2bn in these projects and has requested the Government for capital subsidy to fund the remaining equity contribution.

#### Two brownfield plants with 2.2mnte capacity to be revived

RCF is reviving two closed fertiliser units – Hindustan Fertiliser Corporation's (HFC) Durgapur plant and Fertiliser Corporation of India's (FCI) Talcher plant. As these are brownfield expansions, the capital cost at ~Rs80bn (for 2.2mnte) would be slightly lower than greenfield plants.

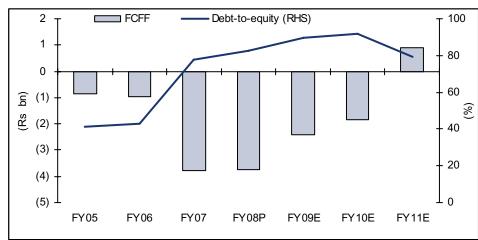
#### Brownfield expansion of 1.1mnte at Thal plant

RCF is contemplating another brownfield urea unit at Thal at Rs27bn capex. The company is likely to prioritise this plant over other two revival plants as these plants are closer to the current Thal unit and would have operational synergy. The total capital cost would be ~Rs107bn for ~3.3mnte capacity.

#### Lack of funding plan and low internal accrual

RCF's internal accruals are low owing to low profitability, the mandate to pay dividend and expanding working capital cycle due to subsidy delay. We believe that internal accruals are insufficient for funding beyond Rs1-2bn.

#### Chart 3: Negative FCFF, rising debt to sustain business



Source: Company data, I-Sec Research

RCF planning three urea plants with 3.3mnte capacity, of which two plants are to be revived

RCF unlikely to generate positive free cashflow by FY10, leading to rising D/E

#### Capital subsidy to be magical for RCF

If proposed capital subsidy comes through, PAT will be boosted 7x RCF is banking on Government grants to fund these expansions. We believe that the company at best can invest ~Rs1-2bn. It has asked the Government to fund the remaining equity contribution. We have not factored in these projects in our models as capital subsidy would be difficult to procure. However, the probable upside from capital subsidy would be huge, adding Rs11bn to the bottom line, at ~7x FY08 PAT.

#### Table 3: Capital subsidy beneficial to existing shareholders

		-
Total investment (Rs bn)	107	Total capital cost for 3 urea projects
Capital grant (Rs bn)	33	RCF has applied for capital subsidy to the extent of
		the equity contribution in these projects after its own
		Rs2bn investment
Net investment (Rs bn)	74	Net of capital grant
Total capacity (mnte)	3.3	
Net capital cost (US\$/te)	558	Net capital cost
Cost of gas (mmbtu)	6	We have assumed landed cost of gas at
		US\$6/mmbtu for wellhead price of US\$4.2/mmbtu
Cost of gas (Gcal)	23.8	mmbtu = 0.252Gcal
Energy required per tonne of urea	5.2	Gcal/te
Energy cost of urea (US\$/te)	124	
Other production expenses (US\$/te)	30	
Depreciation (US\$/te)	31	Low depreciation charge as the capital grant is
		netted off in fixed assets value
Other cost	15	
Cost per tonne	200	
Expected realisation in proposed policy	360	
PBIT (US\$/te)	160	
Debt-to-equity	2:1	
Rate of interest	12%	
Interest (US\$/te)	64.2	
PBT (US\$/te)	96.3	
PAT (US\$/te)	85.4	
PAT (Rs mn)	11,274	

Source: Company data, I-Sec Research

#### JV at South Africa

RCF is planning to enter into a JV in South Africa. Further details are awaited; the capital cost may be ~US\$800-900/te for urea and the primary condition for the JV will be that the gas cost should be at least US\$3/mmbtu lower than the landed natural gas cost in India to make the project viable. Owing to uncertainty and lack of information, we have not factored this in our earning estimates.

## Gas availability to boost utilisation

Improved gas availability would help in restarting urea production at plant at Trombay. This would accrue Rs200mn to PBT Improving gas avaibility to help restart the Trombay urea plant

RCF's urea plant at Trombay (Chembur), with annual capacity of 0.33mnte, is not operative owing to insufficient gas. Post the KG-basin supply, the urea plant would be operational. The total fixed cost and other capital-related charges for the urea plant would be ~Rs400mn, of which the company could have avoided Rs200mn expenses in repair & maintenance and employee cost. We expect Rs0.20bn profits once the Trombay urea unit is operational. We have assumed that the plant would be operational by October '08 and have factored in the benefits from the restarting of the plant.

#### Loss owing to shifting from cheap APM at Trombay to be offset by Thal switching from expensive spot gas to gas from Reliance Industries (RIL)

At present, RCF diverts cheap APM gas towards its chemicals business at Trombay and does not operate the urea plant in Trombay. Once gas from RIL is available at landed cost of US\$5.5/mmbtu, the existing chemicals business would shift to gas from RIL and APM directed for urea production. Loss on account of shifting from APM to expensive gas in chemicals would be offset by the plant at Thal shifting from expensive spot gas to cheaper gas from RIL.

#### Other initiatives - Too small to impact

#### Gypsum-based rapid wall to contribut to profit

RCF has begun operations in gypsum-based building material with Rs0.1bn capex likely to generate Rs700mn topline and Rs100mn bottomline. We do not expect this segment to grow rapidly unless this product proves its commercial acceptability. Notably, gypsum uses raw material which is a waste in one of the processes. The facility will be ready in Q2CY08. Also, RCF is planning to file carbon credit eligibility for this project. The panel unit is expected to earn 0.1mn CER credits per year worth Rs90-100mn. We have not factored in the CER benefit. RCF is planning to enter into a JV with FACT (Fertilisers & Chemicals Travancore) for a similar set up at the FACT plant.

Loss on account of shifting from APM to expensive gas in chemicals would be offset by the plant at Thal shifting from expensive spot gas to cheaper gas from RIL

Rapid wall project too small to gain attention

## Unimpressive financials and working capital worries

Expanding turnover due to trading & higher energy cost and delay in subsidy payment to pressurise working capital

**EBITDA** margin to

towards trading, but RoE to expand post

decline owing to

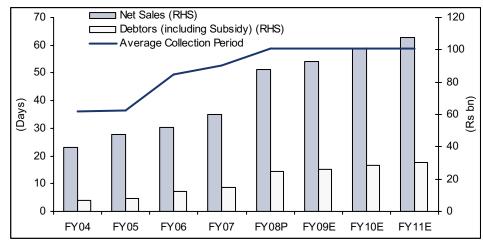
sales mix tilting

de-bottlenecking

#### Rising subsidy outstandings causing working capital requirement

Owing to rising turnover, primarily driven by high energy cost and fertiliser trading, subsidy dues are rising. Further, subsidy pressure and budgetary under-provisioning are causing delay in payment of the subsidy due. The debtors are likely to grow at 24% CAGR through FY05-11. This would lead to rising working capital requirement, which is being funded via debt.

## Chart 4: Boosting trading turnover; subsidy dues causing working capital expansion

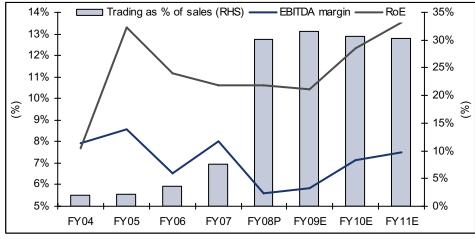


Source: Company data, I-Sec Research

#### Rising subsidy outstanding leading to working capital worry

RCF has forayed into the urea trading segment, a low-margin business. This has impacted the overall EBITDA margin, but the segment is positive at the PAT level. Trading business has boosted the topline though has little to offer to the bottomline. Further, we believe RoE would improve post de-bottlenecking. However, timelines are uncertain.

## Chart 5: Rise in trading business hurts EBITDA margin, but RoE to improve post debottlenecking



Source: Company data, I-Sec Research

## Valuations – Option value, though uncertainty looms

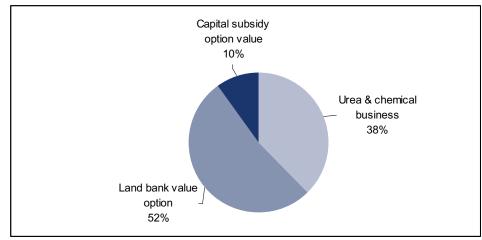
At the current market price, RCF is valued at FY09E & FY10E P/E of 19.9x & 15.7x and EV/E of 14.5x & 11.3x respectively. Though the stock looks expensive at the current level, small option value from the land bank at Rs17.4bn gives Rs32/share value and an option value from capital subsidy can boost PAT ~Rs12bn. If we factor in the capital subsidy of Rs33bn at 10% option value, we arrive at Rs6/share value. We value the core business at FY10E P/E of 6x, arriving at Rs23/share value. Initiate coverage with Hold rating owing to huge option value and uncertainty related to unlocking of this value. Our target price is Rs61/share.

#### **Table 4: SOTP valuation**

	Value (Rs mn)	Value per share (Rs)	Remarks
Urea & chemical business	12,610	23	We are valuing core business at FY10 P/E 6x
Land bank value	17,424	32	Conservative option value of 10% to the land bank value
Capital subsidy	3,331	6	Owing to high uncertainty relating to capital subsidy we have assigned 10% option value to capital subsidy
SOTP	33,681	61	•

Source: I-Sec Research

#### **Chart 6: Overdose of options**



Source: I-Sec Research

### **Financial Summary**

#### Table 5: Profit and Loss Statement

(Rs mn, year ending March 31)

	FY08P	FY09E	FY10E	FY11E
Operating Income (Sales)	51,404	54,295	58,763	62,732
Operating Expenses	48,516	51,135	54,558	58,027
EBITDA	2,888	3,160	4,205	4,705
% margins	6	6	7	7
Depreciation & Amortisation	832	856	999	1,008
Gross Interest	593	794	1,064	984
Other Income	961	1,005	1,041	1,066
Recurring PBT	2,424	2,515	3,182	3,779
Add: Extraordinaries	-	-	-	-
Less: Taxes	839	854	1,081	1,284
Minority Interest	-	-	-	-
Net Income (Reported)	1,585	1,661	2,102	2,495
Recurring Net Income	1,585	1,661	2,102	2,495

Source: Company data, I-Sec Research

#### **Table 6: Balance Sheet**

(Rs mn, year ending March 31)

	FY08P	FY09E	FY10E	FY11E
Assets				
Total Current Assets	25,871	27,261	29,325	31,273
of which cash & cash eqv.	390	346	196	176
Total Current Liabilities &	9,262	9,783	10,588	11,303
Provisions				
Net Current Assets	16,609	17,478	18,737	19,970
Investments	2	2	2	2
of which				
Strategic/Group	-	-	-	-
Other Marketable	2	2	2	2
Net Fixed Assets of which	11,521	13,667	15,169	14,462
intangibles	34	31	27	24
Capital Work-in-Progress	1,194	3,444	1,194	1,194
Total Assets	28,132	31,146	33,908	34,434
Liabilities				
Borrowings	11,052	13,052	14,552	13,552
Deferred Tax Liability	1,670	1,670	1,670	1,670
Minority Interest	-	-	-	-
Equity Share Capital	5,517	5,517	5,517	5,517
Face Value per share (Rs)	10	10	10	10
Reserves & Surplus*	9,923	10,936	12,196	13,720
Less: Misc. Exp. #.	30	30	30	30
Net Worth	15,410	16,423	17,683	19,207
Total Liabilities	28,132	31,145	33,905	34,429

\*excluding revaluation reserves; # Not written off

Source: Company data, I-Sec Research

#### **Table 7: Cash Flow Statement**

(Rs mn, year ending March 31)				
	FY08P	FY09E	FY10E	FY11E
Operating Cash flow	1,456	1,510	2,058	2,435
Working Capital Changes	(4,184)	(912)	(1,410)	(1,252)
Capital Commitments	(1,000)	(3,000)	(2,500)	(300)
Free Cash Flow	(3,729)	(2,402)	(1,851)	883
Cash flow from Investing				
Activities	961	1,005	1,041	1,066
Issue of Share Capital	-	-	-	-
Buyback of shares	-	-	-	-
Inc (Dec) in Borrowings	1,500	2,000	1,500	(1,000)
Dividend paid	(646)	(646)	(839)	(968)
Extraordinary Items	-	-	-	-
Chg. in Cash & Bank balance	(1,916)	(45)	(152)	(21)
Source: Company data, I-Sec Research				

#### **Table 8: Key Ratios**

(Year ending March 31				
	FY08P	FY09E	FY10E	FY11E
Per Share Data (Rs)				
Diluted Recurring EPS	2.9	3.0	3.8	4.5
EPS(Basic Recurring)	2.9	3.0	3.8	4.5
Recurring Cash EPS	4.4	4.6	5.6	6.4
Dividend per share (DPS)	1.0	1.0	1.3	1.5
Book Value per share (BV)	27.9	29.8	32.1	34.8
Growth Ratios (%)				
Operating Income	47.4	5.6	8.2	6.8
EBITDA	3.5	9.4	33.1	11.9
Recurring Net Income	6.5	4.8	26.5	18.7
Diluted Recurring EPS	6.5	4.8	26.5	18.7
Diluted Recurring CEPS	7.8	4.2	23.2	13.0
	1.0		20.2	10.0
Valuation Ratios (x)				
P/E	20.9	19.9	15.7	13.2
P/CEPS	13.7	13.1	10.7	9.4
P/BV	2.1	2.0	1.9	1.7
EV / EBITDA	15.1	14.5	11.3	9.9
EV / Operating Income	0.9	0.8	0.8	0.7
EV / Operating FCF	(16.0)	76.5	73.1	39.2
Operating Ratio (%)				
Raw Material/Sales	74.8	73.8	72.1	72.3
SG&A/Sales	74.0	75.0	12.1	12.0
Other Income / PBT	60.6	60.5	49.5	42.7
Effective Tax Rate	34.6	34.0	34.0	34.0
NWC / Total Assets	57.7	55.0	54.7	57.5
Inventory Turnover (days)	73.2	74.2	76.0	75.8
Receivables (days)	100.6	100.7	100.8	100.9
Payables (days)	58.9	59.8	61.1	61.0
D/E Ratio	82.6	89.6	91.7	79.3
	02.0	03.0	31.7	13.5
Return/Profitability Ratio (%)				
Recurring Net Income Margins	3.1	3.1	3.6	4.0
RoCE	7.3	7.4	8.6	9.2
RoNW	10.6	10.4	12.3	13.5
Dividend Payout Ratio	34.8	33.2	34.1	33.2
Dividend Yield	1.7	1.7	2.2	2.5
EBITDA Margins	5.6	5.8	7.2	7.5
Courses Company data   Coo Do	aaarah			

Source: Company data, I-Sec Research

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