

RELIANCE INDUSTRIES

INR 1,263

Refining major to Integrated oil & gas play

ACCUMULATE



Excellent executor of large projects

Reliance Industries Limited's (RIL) strengths is in its ability to build businesses of global size and scale and execute complex, time-critical, and capital-intensive projects favourably in a highly regulated industry environment. The company has demonstrated its ability to tap high growth industries at early stages of their lifecycle like oil and gas (O&G), petrochemicals, financial services, telecom, and utilities. Sunrise sectors for the company now include organised retailing and SEZ infrastructure. RIL plans to invest USD 14.5 bn over a period of time. RIL has recently monetized its project execution capabilities by bringing RPL's recent IPO at an early stage, front-ending value creation of USD 3.0 bn for RIL. Similar strategies are likely to be employed for the new growth areas.

Exploration and production business to drive RIL's earnings growth

RIL's EBITDA is set to double by FY11E on account of the company's growing exploration and production (E&P) business. Our estimated in-place reserves of 30.6 tcf natural gas (5.8 bn boe) implies a per-share value of INR 302 per RIL share. The in-place reserves may have to be increased to 18.6 bn boe (increase by 218%) and per share value to INR 850 per share, after accounting for all news-based upsides.

Core business of refining and chemicals to sustain cash flows till FY08E

We expect the refining industry to sustain high margins till CY08E, as the incremental refining capacity is likely to just match the incremental demand for petroleum products till then. Increased differential between sweet and sour crude and dieselisation of the global economy puts middle distillates focussed refineries like RIL at an advantage. RIL has recently slowed its plans of expanding its petrochemicals capacity due to expected global over supply. The refining and chemicals segment is expected to maintain earnings till FY08E.

Valuation factors in current news flows; 'ACCUMULATE'

Using assumptions derived from company confirmed news flow and 'sum-of-parts' methodology, we estimate RIL's fair value at INR 1,204 per share, 4.7% lower CMP of INR 1,263. Our estimated fair value does not incorporate the upsides based on possibilities of further positive news flow from the company on the E&P and SEZ businesses. If all unconfirmed news flow were to be considered, there is a possibility of ~45% upside from the current levels. RIL trades at 15.7x and 15.4x, our FY07E and FY08E EPS, respectively. We believe the CMP factors in potential upsides to a reasonable extent. We therefore initiate coverage on the stock with an 'ACCUMULATE' recommendation.

Financials

| Year to March | FY06 | FY07E | FY08E | FY09E |
|-------------------------|---------|---------|---------|---------|
| Revenue (INR mn) | 812,113 | 972,072 | 907,890 | 856,778 |
| Rev. growth (%) | 23.0 | 19.7 | (6.6) | (5.6) |
| EBITDA (INR mn) | 142,991 | 171,062 | 176,543 | 178,795 |
| Net profit (INR mn) | 90,693 | 97,891 | 99,985 | 93,519 |
| Shares outstanding (mn) | 1,394 | 1,394 | 1,394 | 1,394 |
| EPS (INR) | 65.1 | 70.2 | 71.8 | 67.1 |
| EPS growth (%) | 19.8 | 7.9 | 2.1 | (6.5) |
| P/E (x) | 19.4 | 18.0 | 17.6 | 18.8 |
| EV/ EBITDA (x) | 13.7 | 11.2 | 10.8 | 10.7 |
| ROAE (%) | 13.0 | 12.4 | 11.6 | 10.8 |

November 16, 2006

Niraj Mansingka

+91-22-2286 4304

niraj.mansingka@edelcap.com

Reuters : RELI.BO
Bloomberg : RIL IN

Market Data

52-week range (INR) : 1,316 / 675
Share in issue (mn) : 1,393.5
M cap (INR bn/USD mn) : 1,760 / 38,495
Avg. Daily Vol. BSE/NSE ('000) : 8,332.7

Share Holding Pattern (%)

Promoters : 49.9
MFs, Fls & Banks : 8.1
Fls : 20.3
Others : 21.7



Investment Rationale

An excellent executor of large projects

Reliance Industries Limited's (RIL's) growth has been fostered by its key and differentiating strengths, such as:

Excellent executor of large projects

- Ability to think on a global scale and execute it
- Successful lobbying with the government
- Excellent execution skills for complex, time-critical, and capital-intensive projects
- Ability to use the capital market to their advantage to finance large projects

RIL has a history of setting up large projects

RIL has a history of setting up global-scale projects and a track record of completing them on time. Some of the key projects completed by RIL are as shown in the table below:

Table 1: Details of some significant projects completed by RIL

| RIL projects | Investment(INR bn) (USD 2.5 bn) | Year started | Project description |
|---------------------------------|---|--|---|
| Expansion of Hazira (Phase II) | INR 90 bn (USD 2.5 bn) | Completion in FY97 | 0.12 mmtpa PFY 0.16 mmtpa PSF 0.08 mmtpa PET 0.35 mmtpa PP 0.35 mmtpa PTA 0.12 mmtpa MEG |
| Reliance Petroleum | INR 143 bn (USD 2.5 bn) | Planned in FY94 and started in FY99 | World's largest 27.0 mmtpa grassroots refinery and jetty. Post-optimisation, capacity of the refinery stands at 33.0 mmtpa |
| Jamnagar Petrochemicals complex | INR 55 bn (USD 1.3 bn) | Completion in FY00 | 1.4 mmtpa PX plant 0.6 mmtpa PP plant |
| Reliance Infocomm | Till FY06 > INR 210 bn (USD 4.7 bn) | Rollout started on Nov 1999 | New venture into the telecom space Integrated operator. Nationwide CDMA network connecting India's top 115 cities with 60,000 route kms |
| Reliance Petroleum (new) | INR 270 bn (USD 6.0 bn) | Jun 2008 (estimated) | New 29 mmtpa refinery and 0.9 mmtpa polypropylene project at Jamnagar SEZ, Gujarat. Estimated cost of USD 6.0 bn |

Source: Industry, Company

Reliance Petroleum Ltd - timeline of the construction of the existing refinery

Reliance Petroleum Limited (RPL), a part of the Reliance Group, had come out with an initial public offering (IPO) in September 1993 to part-finance its 9.0 mmtpa refinery project costing INR 51.4 bn. The total public issue was for INR 21.7 bn, with the net offer of INR 8.6 bn, largest domestic issue during that time. The public issue was made available through an innovative financial instrument – Triple Option Convertible Debentures (TOCD).

Despite obtaining the required finances, project could not start as per schedule. There was a delay mainly due to the scaling up of the proposed capacity from initial 9.0 mmtpa to 18.0 mmtpa and eventually to 27.0 mmtpa. Post-optimisation, the capacity of the refinery currently stands at 33.0 mmtpa.

With an increased capacity RPL became world's largest grassroots refinery and seventh largest operating refinery. The project milestones were:

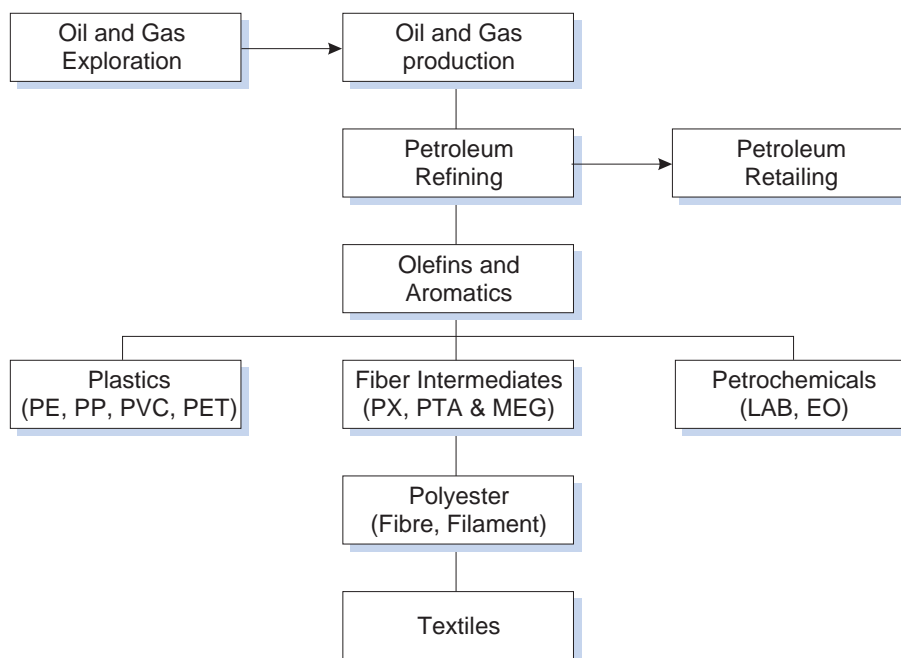
1. Acquisition of land in December 1994
2. Commencement of construction in 1996, with the levelling of land and laying of equipment foundation
3. Increase in the plant's capacity from 9.0 mmtpa to 18.0 mmtpa in April 1998
4. Further increase in capacity to 27.0 mmtpa in December 1998
5. Beginning of the refinery's commercial production in April 2000
6. Completion of the first full year of commercial operations in March 2001, during which RPL emerged as the largest private sector company in terms of revenues with sales of more than INR 300 bn.
7. Emergence of RPL in 2002 as one of the most modern refineries in the world with an ability to use almost any kind of crude oil. The refinery's capital cost per tonne was about 40% lower than existing refineries in India.

✦ Successful creation of a fully integrated manufacturing facility

RIL has successfully managed to integrate its petroleum operations by putting up relevant capacities. With scale-up in the exploration and production (E&P) business, we believe that the firm has emerged as a truly integrated player. Today, RIL is involved in activities ranging from E&P of oil and gas (O&G) to production of petrochemicals and synthetic textiles.

Fig. 1: Integrated manufacturing facility

RIL has emerged as a truly integrated player



Source: Company

✦ An ideal company to play the India story

RIL plans to take advantage of the Indian consumption story

RIL's strengths, as mentioned above, place it at an advantage to tap the Indian consumption story. Historically, RIL is focused on tapping the Indian consumption stories such as O&G, petrochemicals, financial services, telecom, and utilities at their early stages of lifecycle. According to us, the company's recent announcements of venturing into consumer retailing and SEZ infrastructure are part of the same growth strategy. This makes RIL an ideal company to play the Indian consumption story.

Table 2: Reliance has focused in the domestic consumption story

| Business segment present | Business entering | Future businesses |
|--|--------------------|-----------------------|
| E&P | Petro Retailing | Coal |
| Refinery | Consumer Retailing | City gas distribution |
| Petrochemicals | Coal based methane | SEZ Infrastructure |
| Polyesters / Textiles | | |
| Telecom (demerged in 2006) | | |
| Finance (through investment in subsidiary) | | |
| Energy utilities (demerged in 2006) | | |

Source: Edelweiss research

Currently, RIL is simultaneously working on three projects:

- Reliance Petroleum Limited's (RPL's) 29.0 mmtpa complex refinery at Jamnagar SEZ (investment of USD 6.0 bn)
- Development of gas fields in KG basin, especially the KG-D6 block (investment of more than USD 5.0 bn)
- Rollout of Reliance Retail – a consumer retailing company (with an estimated investment of ~USD 5.6 bn)

Recent success of the IPO indicates new ways to monetise project execution skills

Successful IPO for RPL of USD 1.2 bn to finance its new 29.0 mmtpa refinery

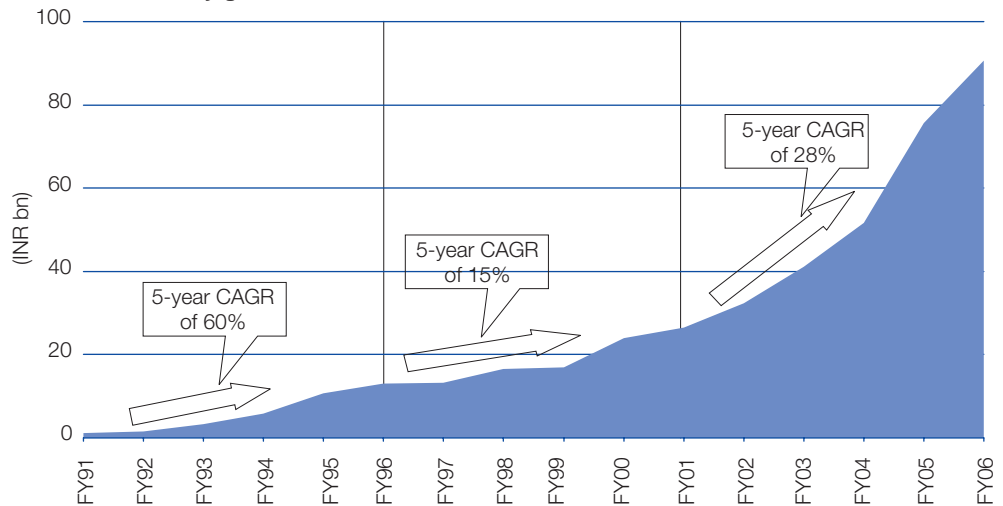
Recent IPO of Reliance Petroleum Ltd has introduced new ways to monetise RIL's project execution capabilities. RPL came out with an IPO of USD 1.2 bn in April 2006 to finance its new 29.0 mmtpa complex refinery at Jamnagar SEZ. RIL had an immediate valuation benefit to the tune of USD 3.0 bn on account of the IPO. By bringing the IPO at early stage, the company has front-ended the value creation for RIL. We envisage more such IPOs in the near future in the retailing and SEZ businesses.

RIL's huge cash flow reduces project execution risk

RIL's profitability has increased impressively for the last two decades; it has grown at a CAGR of 28% in the last five years (see figure below).

Chart 1: Profitability growth

Consistent growth in profitability generating cash of INR 150 bn which is likely to remain at current levels in the future



Source: Company

Moreover, RIL is leveraged lower with debt-equity ratio of 0.4 and 0.3 for FY06 and FY07E, respectively. The credit rating for the company also indicates its low risk (see table).

Table 3: Credit rating of RIL

| Credit rating firm | RIL rating | India rating |
|--------------------|------------|--------------|
| S&P | BBB | BB+ |
| Moody's | Baa2 | Ba2 |
| Fitch | BBB- | BB+ |
| Crisil India | AAA | - |

Source: Bloomberg, Various sources

Additionally, RIL's current business generates cash flow of ~INR 150 bn (USD 3.4 bn) annually, which is likely to remain at the current levels for the next two years. We expect the cash flow to increase to ~INR 230 bn annually FY10 onwards. This makes the company a low risk play from an investment perspective.

E&P business to drive RIL's earnings growth

*RIL's EBITDA to double by FY11
on account of E&P business*

RIL's E&P division is the lynchpin for its earnings growth. The company's operating earnings is set to double by FY11 on account of its growing E&P business; the E&P division's contribution to the company's EBITDA is expected to rise to 45% in FY11E from 9% in FY06.

Our earnings estimates for RIL is based on in-place reserves estimates of 30.6 tcf natural gas (5.8 bn boe), which is based on confirmation from the company and Niko resources, RIL's partner. This implies a per-share value of INR 302 per RIL share.

However, recent news flows indicate that the reserves may be higher than our estimates. We estimate that in-place reserves would have to be upgraded to 18.55 bn boe (increase by 218%) after accounting for all the upsides. On the valuation front the value increases to INR 850 per RIL share (increase by 181%).

✦ Recent news flows indicate potential upsides in reserves

A string of positive news flows recently on the E&P front have given rise to speculations regarding the possible upsides in RIL's O&G reserves. This has resulted in RIL's stock price climbing recently, reflecting speculation on further increase in the company's reserves. The recent and significant news flows are:

*News flows indicate possible
upsides to O&G reserves*

- RIL's November 1, 2006 announcement of increase in 2P reserves for Dhirubhai-1 and Dhirubhai-3 discoveries to 11.3 tcf, increase in gas production rates of 40 mmscmd to 80 mmscmd, and revision of the capex from USD 2.47 bn to USD 5.20 bn
- RIL's announcement of gas discovery, named Dhirubhai-28, in NELP-III block KG-OSN-2001/1 in the KG basin, on September 23, 2006
- Announcement by RIL management in an oil conference in September 2006 stating- (1) reserves and technical resources put together could exceed 50 tcf for the KG-basin block, and (2) one of RIL's discoveries could yield 1.0 bn barrels of oil
- Niko's June 27, 2006 announcement of the engineering report prepared by Gaffney, Cline and Associates (GCA), which increased the high estimate of gross original natural gas in-place (OGIP) for the D6 block from 11.9 tcf to 35.4 tcf.
- RIL AGM announcement on June 27, 2006 about oil finds in the KG-D6 (MA-1 well) and KG-III-6 block as well as opening up of a new cretaceous play
- Niko's quarterly filings, which indicate huge exploration potential of the D4 block.

Our estimate of the O&G reserves is based on the recent confirmation of the reserves from the company. However, we do not rule out an upgrade in the reserves by as much as 3.2x of our reserves estimates.

Table 4: Huge potential upsides in RIL's E&P assets

| Block | Our estimated reserves (OGIP) | | | Newsflow based reserves upsides (OGIP) | | |
|-------------------|----------------------------------|-------------|----------------|--|-------------|----------------|
| | oil (bn bbls) | gas (tcf) | Total (bn boe) | oil (bn bbls) | gas (tcf) | Total (bn boe) |
| KG-D6 | 0.0 | 23.3 | 4.4 | 1.0 | 50.0 | 10.5 |
| NEC-25 | 0.0 | 3.7 | 0.7 | 0.0 | 8.2 | 1.6 |
| CBM | 0.0 | 3.7 | 0.7 | 0.0 | 10.7 | 2.0 |
| KG-D4 | under exploration phase - I | | 0.0 | 0.0 | 18.0 | 3.4 |
| KG-III-6 | under exploration and evaluation | | 0.0 | 1.0 | 0.0 | 1.0 |
| KG-OSN-2001/1 | under exploration and evaluation | | 0.0 | very preliminary | | |
| Total OGIP | 0.0 | 30.6 | 5.8 | 2.0 | 86.9 | 18.6 |

Source: Edelweiss research

*using conversion 1 bn boe = 5.25 tcf

Moreover, RIL has a huge portfolio of exploration blocks (see Annexure II), which provides for sustainability of its reserves. Currently, the company has 44 exploration blocks [including five coal-based methane (CBM) blocks]. Going forward, there is a likelihood of a few of them turning out to be discoveries.

✦ Supplies of natural gas to be absorbed

Energy consumption in India from natural gas is 8.5% as against the average global consumption of 23.5%. The low consumption is on account of non-availability of the gas in India.

We estimate natural gas production to increase from 93 mmscmd in FY06 to around 244 mmscmd in FY11. Based on the demand of gas for power and fertilizers, we believe that an increase in the gas supplies can be easily absorbed by the country. In fact, we believe that India may have an appetite for more gas supplies, as the country's GDP grows above 8.0% CAGR in the next decade (refer Annexure III).

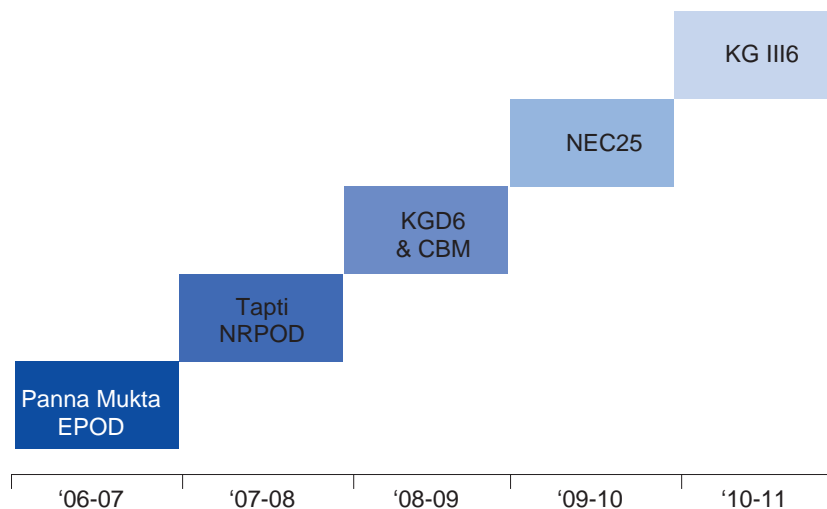
✦ E&P business to continue to be the lynchpin of profit growth in future

E&P will be the lynchpin of RIL's earnings growth. RIL's EBITDA is expected to increase by INR 130 bn (FY10 over FY08) as the production of KG-D6 gas begins. RIL's inventory of development projects (see figure below) will lead to an increase in the company's earnings for the next five years.

Growth in demand for gas will be able to absorb the increase in production

Fig. 2: RIL list of project inventory

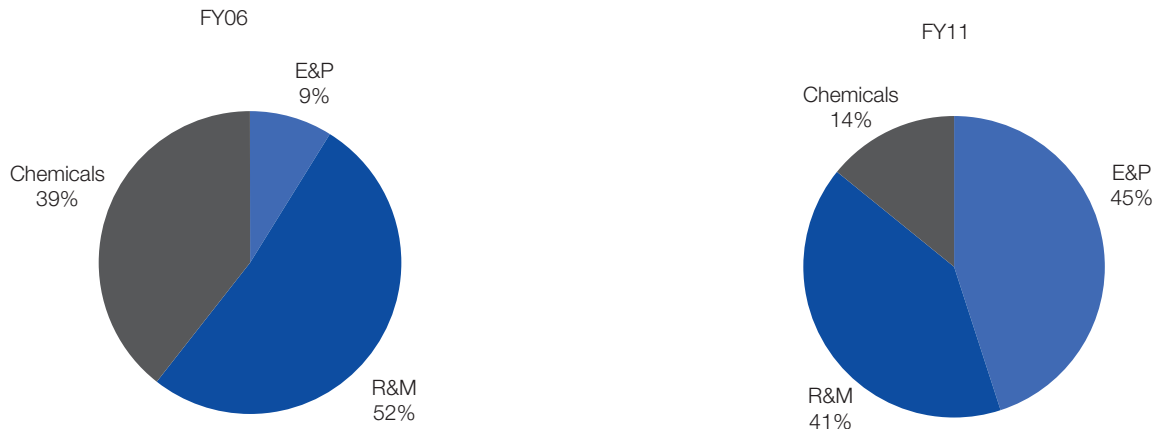
RIL has lined up the development of its O&G assets



Source: Company

RIL is set to emerge as a fully integrated O&G company from a refining and marketing major.

Chart 2: EBITDA contribution



Source: Company, Edelweiss research

Important RIL blocks discussed below:

1. KG-DWN-98/3 (KG-D6) gas and oil
2. NEC-OSN-97/2 (NEC-25)
3. KG-OSN/2001/1
4. KG-OSN/2001/2 (KG-III-6)
5. CBM Sohagpur
6. PMT fields

1. KG-D6, the largest gas find in India

RIL's E&P business came into limelight after the discovery of gas in Krishna-Godavari (KG) basin KG-DWN-98/3 block (D6) in 2002. RIL has 90% interest in the block; Canada-based Niko Resources (Niko) holds the remaining stake. RIL plans to bring its first gas find into production by June 2008. As per the recent RIL release (November 1, 2006), the 2P reserves stand at 11.3 tcf gas. We have used the 2P + prospective resources for our reserves estimates of 23.2 tcf natural gas.

KG-D6 block is stretched across 7,645 sq km and is located in the eastern coast of India. RIL, along with Niko, had outbid Cairn Energy and ONGC in the first round of bidding for NELP-I. The company signed the PSC on December 2000 and subsequently struck its first gas find in October 2002, followed by more success in the block later on. Till date, RIL had discovered hydrocarbons in all the 18 wells. Currently, RIL's gas find is in the development stage and is expected to start production in June 2008.

KG-D6 OGIP reserves at 35.4 tcf natural gas

As per Niko Resources' press release in June 2006, Gaffney, Cline and Associates (GCA, an independent evaluator) had upgraded KG-D6 block's 3P/high estimate of OGIP to 35.4 tcf, increase of ~3.0x from earlier estimate of 11.9 tcf. The reserves are prior to any deduction for royalties or profit on petroleum. Moreover, the reserves results do not include discoveries in the P1-A and MA-1 wells in the Cretaceous interval, which could have a dramatic impact on the future exploration potential of the D6 Block (see table below for more details).

RIL has 90% participating interest in KG-D6, the largest gas find in India

GCA has upgraded OGIP of the KG-D6 block to 35.4 tcf from 11.9 tcf

RIL's November 1, 2006 release had revised the 2P reserves for the Dhirubhai-1 and Dhirubhai-3 gas discoveries at 11.3 tcf, similar to the 2P reserves estimates of GCA.

Table 5: OGIP estimates of RIL KG-D6 block

| Fiscal year | Evaluator | Fields | 1P / | 2P / | 3P / |
|-------------|--|--------------------------------|---------------|----------------|----------------|
| | | | Low estimate* | Best estimate* | High estimate* |
| 2005 | DeGoyler & MacNaughton (D&M) | A,B,C,D,E,F,G,H,K,M (reserves) | 2.9 | 7.9 | 11.7 |
| | | Total OGIP | 2.9 | 7.9 | 11.7 |
| 2006 | Gaffney, Cline and Associates (GCA) | A, B (reserves) | 5.7 | 18.8 | 27.2 |
| | | C,D,E,F,G,H,K,M,SH (resources) | 1.2 | 4.5 | 8.2 |
| | | Total OGIP | 6.7 | 23.3 | 35.4 |

Source: Niko resources

* 1P/2P/3P for reserves and Low/Best/High for resources. Figures are gross of royalties/profit petroleum

Production infrastructure can produce 119 mmscmd; new capex pegged at USD 5.2 bn

As per the initial development plan of USD 2.5 bn submitted to the government of India (Gol), RIL had planned for a three-stage scenario:

- Gas production of 20 mmscmd for first two years
- Increase to 40 mmscmd and then to 70 mmscmd
- Peak plateau rate of 40 mmscmd.

However, after the first two development wells (A-10 and B-7) were drilled, further reservoir and reserve information gathered led to revision of reserves and upgradation of the field development plan to handle increased production rates. Production facilities are now being designed to initially accommodate 79.3 mmscmd (2.8 bcf/d) ramping up to 119 mmscmd (4.2 bcf/d).

RIL had recently filed for the amendment of its initial development plan in KG-D6 block and changes in the plateau production from 40 mmscmd to 80 mmscmd. This led to an increase in the capital expenditures from USD 2.5 bn to USD 5.2 bn. Increase in rig hire charges and number of wells to be dug has led to an increase in the capital expenditure for the company. RIL now plans to dig 50 wells for the two fields as against 34 planned earlier. This development will nearly double the current total production of natural gas in India and will help meeting the surging energy demand in India's fast growing economy.

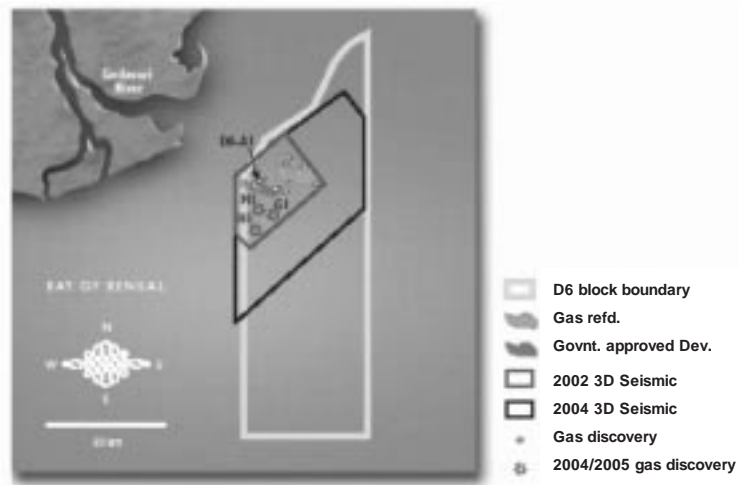
Year 2007 expected to be the most active year for KG-D6 block

3D seismic data has been acquired in most of the areas of the block; processing and interpretation of the data is expected to be completed by FY07 end. Year 2007 will be the most active year in KG-D6 block with three rigs working to develop and explore the O&G potential in the remaining area. RIL has contracted three rigs, which will work for exploration, appraisal, and production (see figure) starting from November 2006.

*RIL has increased its plateau production from 40 mmscmd to 80 mmscmd
Consequently Capex has increased from 2.5 bn to 5.2 bn*

2007 will see three rigs working for RIL

Fig. 3: Current gas discovery is only a small portion of the total block



Source: Niko resources

Oil finds may lead to large geological play

News flows indicate 500 mn barrels of recoverable reserves

RIL, in its AGM, had announced the oil finds from the MA-1 well in KG-D6 block. The MA-1 well was the first test of the Cretaceous section in D6 and resulted in the discovery of both oil and natural gas in that interval. Preliminary evaluations indicate the well-penetrated 26 m of net oil pay and 72 m of net gas pay (see figure below).

The discovery has come from new geologic interval that signifies large geological play and could result in future discoveries. Based on the estimated size of the structure (potential area estimate = 10 km X 15 km, pay zone = 15-50 m), we believe that these finds could range from 0.5-1.5 bn bbls of recoverable reserves. RIL is planning to drill another cretaceous prospect MG-1 well and second well MB-1, 11 km south of the existing MA-1 well in November 2006. We estimate recoverable oil reserves at 500 mn barrels.

Fig. 4: KG-D6 oil finds in MA-1 well



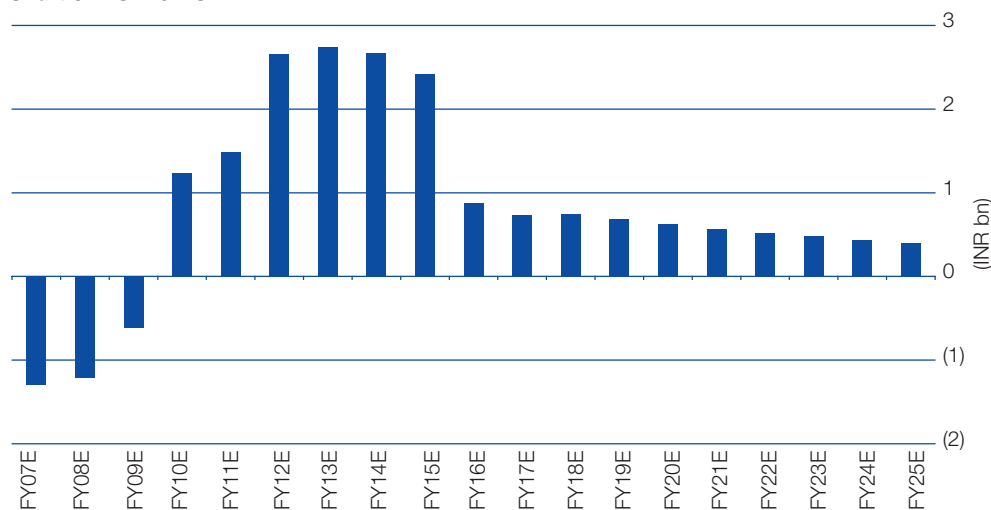
Source: Niko resources

We expect revenues of 142 bn from the KG-D6 block by FY10

Full impact of earnings to flow FY10 onwards

RIL has targeted the first gas from this field by June 2008. Based on RIL's recent announcement, we have assumed plateau gas production at 80 mmscmd and initial gas price realisation of USD 3.5/mcf. We estimate the block to clock revenues and EBITDA of INR 142 bn (USD 3.2 bn) and INR 112 bn (USD 2.5 bn), respectively, in FY10. RIL has 90% interest in the block. We have shown the FCF of production from the block in the chart below. Please refer to the figure below for our cash flow assumptions on the company.

Chart 3: KG-D6 FCF

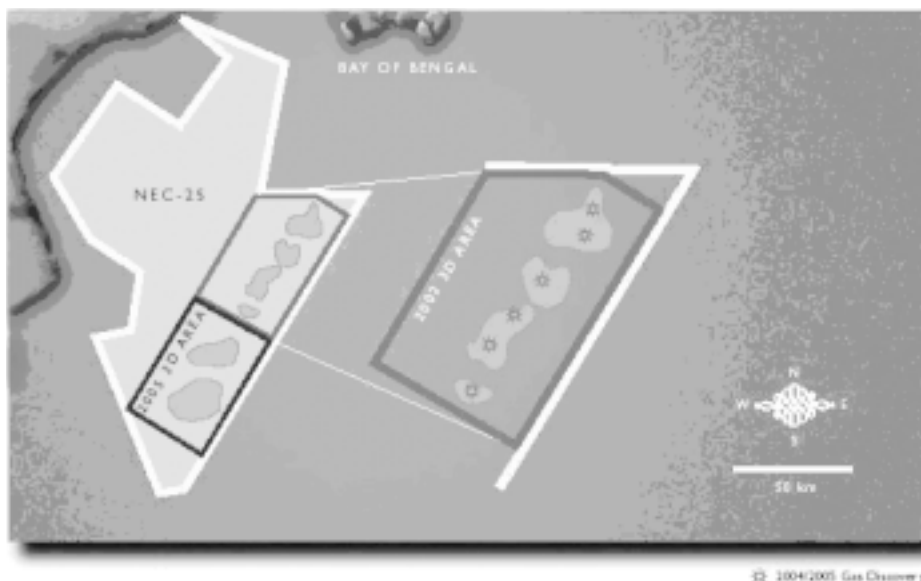


Source: Edelweiss research

2. NEC-25 block lies next to the KG block; another significant find

NEC-25 block is located in the eastern coast of India and comprises 3.5 mn acres (gross). RIL (operator) has 90% interest in the firm and Niko has the remaining 10% interest. Gol has declared the commerciality of all the six well discoveries. The preparation of the development plan is underway and RIL plans to bring in the first gas into production in 2009.

Fig. 5: NEC block location



© 2004/2005 Gas Discovery

Source: Niko resources

Our reserves estimates for the block at 2.76 tcf

GCA's best 2P/estimates of OGIP at NEC-25 is 3.7 tcf

Gaffney, Cline & Associates (GCA), an independent evaluator, has assessed the natural gas resources of the block. GCA's best estimate of original natural gas-in-place (OGIP) for the drilled discoveries in NEC-25 is 2.3 tcf and for undrilled prospects in the first seismic area in NEC-25 is 1.4 tcf. We have assumed recoverable reserves of 2.76 tcf gas for valuation of the asset, which is the 2P GCA estimate of its OGIP resource.

Table 6: OGIP estimates of RIL NEC-25 block

| Fiscal year | Evaluator | Fields | 1P / | 2P / | 3P / |
|-------------|-------------------------------------|---------------------------------|---------------|----------------|----------------|
| | | | Low estimate* | Best estimate* | High estimate* |
| 2005 | Gaffney, Cline and Associates (GCA) | Drilled discoveries (resources) | 0.8 | 2.3 | 5.5 |
| | | Undrilled prospects (resources) | 1.0 | 1.4 | 2.7 |
| | | Total OGIP | 1.8 | 3.7 | 8.2 |

Source: Niko resources

* 1P/2P/3P for reserves and Low/Best/High for resources. Figures are gross of royalties/profit petroleum

Operation status

Out of the 6 drilled wells 4 of them have been discoveries

Till date, RIL has drilled six wells and reported four discoveries. GCA has estimated 2.3 tcf of drilled OGIP with upsides of 1.4 tcf gas (see table above). RIL has begun working on the development plan. However, it is yet to submit the development plan, as the Director General of Hydrocarbons, Government of India (DGH India), has not accepted the commerciality of the discoveries till now.

Processing of the recently acquired 3D seismic data is under progress and is expected to complete by November 2006, followed by interpretation and well selection. Exploration drilling is scheduled to commence before FY07 end. RIL plans to drill eight wells, with the first two designed to increase the reserves in the original discoveries.

Earnings to flow from FY10

Earnings from the block is planned to come FY10 onwards. We estimate the plateau production at 15 mmscmd for the block. Revenues and EBITDAX in the first full year of production is expected be INR 31 bn (USD 0.7 bn) and INR 23 bn (USD 0.5 bn), respectively.

3. Low risk CBM diversifies RIL's energy sources

CBM offers low exploration risks

CBM offers advantages of little exploration risk, as modern techniques can identify coal beds and the gases that lie within. Further, the peak investible cash flow required is much lower compared to the O&G exploration and development. This, along with the lucrative fiscal terms (see block for the fiscal features of CBM blocks), make CBM a lucrative business opportunity.

RIL has 5 CBM blocks out of 16 blocks offered by Gol

RIL's five, out of the 16 blocks offered by Gol in the first two phases of the bid, are CBM blocks. Gas from CBM blocks provides opportunities to RIL to diversify its revenue sources. RIL discovered CBM in Sohagpur (east and west) blocks in August 2005. As per the certification by DGH, the block is estimated to contain gas-in-place (GIP) reserves of 3.65 tcf. Our estimates peg the recoverable CBM gas at 40% or 1.5 tcf.

Table 7: CBM finds in sohagpur

| Block Name | Technical name | Area (sq km) | Gas-in-place (tcf) |
|-----------------|---------------------|--------------|--------------------|
| Sohagpur (West) | SP(West)-CBM-2001/1 | 500 | 1.96 |
| Sohagpur (East) | SP(East)-CBM-2001/1 | 495 | 1.69 |
| Total | | 995 | 3.65 |

DGH estimates GIP of 3.7 tcf

Source: Industry

*Total development cost of the
CBM block is expected to be
INR 30 bn*

RIL plans to bring production of CBM in the markets in 2009 (FY10). We expect the production to slowly ramp up to its full potential by FY14. We estimate the total development cost at INR 30.0 bn (USD 0.7 bn) and full scaled EBITDAX of INR 15.5 bn (0.3 bn) FY14 onwards.

General terms of CBM blocks

Broad contract terms

- The CBM blocks are awarded through global competitive bidding. Contractors bid for the work programme and the production level payment
- Duration of the contract is maximum for 38 years for blocks located in a normal area and 40 years for blocks in a frontier area
- The contract period is broken into four phases
 - I. Exploration phased for 3 years
 - II. Pilot assessment for 5-7 years
 - III. Development phase of 5 years
 - IV. Production phase of 25 years.

Fiscal terms

- Exemption of import duty on capital goods
- Commercial discovery bonus of USD 0.3 mn
- Freedom to market CBM gas in domestic market at market determined price
- Provision for 100% cost recovery
- Royalty rate of 10% payable to the state government
- Ad valorem biddable Production Level Payment (PLP) on every incremental production of 0.5 MMSCMD, over a base production level of 1.0 MMSCMD
- Income tax holiday for seven years from the date of commencement of commercial production.

4. KG-D4 (MN-DWN-2003/1) and KG-III-6 (KG-OSN/2001/1) are speculative plays

There has been a stream of positive news flows about RIL's recent finds in KG-III-6. Similarly, Niko has indicated possibility of huge geological play in KG-D4 block as that of the KG-D6 block.

KG-D4 (MN-DWN-2003/1)

RIL signed the production sharing contract with Gol for the acquired exploration block KG-D4. RIL is the operator of the block and holds 85% interest in the same; Niko holds the remaining 15%.

News flows indicate KG-D4 has similar environmental and play types as the D6 block

The MN-DWN-2003/1 block (D4) is a 17,050 sq km block, lying offshore of the east coast of India in the Mahanadi Basin, which was awarded in the NELP-V bidding round in 2005. The 3,265 km of 2D seismic acquisition is over and is currently under processing, which is expected to be accomplished by October 2006. The interpretation of the processed data is to be followed by acquisition of 1,800 km of 3D seismic data for the block (end FY07) and then by a 3- well exploratory drilling program. RIL-Niko consortium is upbeat on the block’s reserves. As per Niko’s recent release on the block - “KG-D4 is an exciting prospect and has similar depositional environment and play types as the NEC-25 and D6 Block natural gas discoveries. Exploration potential for the D4 block is expected to exceed the potential of the D6 block”

As per industry reports, preliminary estimates of D4 block is pegged at 18 tcf gas. However, we believe that valuation will only reflect once the estimates are backed by drilled wells. We find the block interesting, considering the fact that the block has better fiscal terms compared with KG-D6 block.

Fig. 6: D4 block location



Source: Niko resources

KG-III-6 (KG-OSN/2001/2)

This block is 100%-owned and operated by RIL and is at an early stage of exploration. RIL had reported two discoveries in this block– both O&G. The potential of the said discovery is, however, yet to be ascertained. We have assumed recoverable oil of 500 mn barrels in the block.

KG-OSN/2001/1

This block is 100%-owned and operated by RIL and is at an early stage of exploration. Although RIL has announced gas finds from this block, the discovery’s potential is yet to be ascertained. We have not assumed any reserves from this block for our valuation of RIL’s E&P reserves.

5. Panna-Mukta-Tapti (PMT) fields

Panna-Mukta currently produces 4.0 mmscmd of gas and 1.5 mmtpa of crude

RIL has 30% interest in the Panna, Mukta, and Tapti (PMT) fields; ONGC and British Gas hold 40% and 30% stake, respectively, in the fields. The field is operated under a joint-operating agreement between all the three partners.

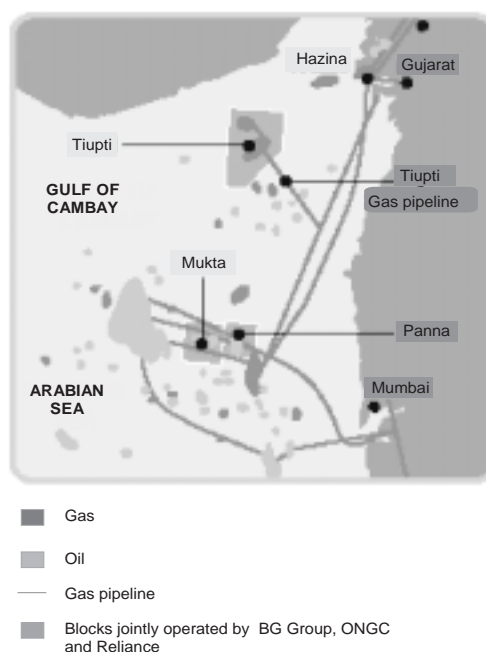
The Panna-Mukta fields stretch over approximately 95 km north-west of Mumbai in water depths of 45-70m, covering around 300,000 acres. The Panna field is estimated to have original

oil-in-place (OOIP) of 1 bn barrels and original gas-in-place (OGIP) of 1.9 tcf. Recoverable reserves are currently at 180m barrels and are expected to go up to 250m barrels.

Tapti gas production likely to go up to 12.2 mmscmd from 7.0 mmscmd

Panna-Mukta fields currently produce 4.0 mmscmd gas and 1.5 mmtpa crude. Tapti fields produce 7.0 mmscmd gas. After the ongoing expansion at Panna and Tapti fields, the production from Tapti is likely to increase to 12.2 mmscmd; gas and crude production in Panna-Mukta fields are likely to increase to 4.5 mmscmd and 2.2 mmtpa, respectively, post expansion.

Fig. 7: Panna Mukta Tapti fields locations



Source: BG, Company

Currently, there are two ongoing projects in the PMT fields, which are expected to increase the annual production of these fields by ~20 mn boe (2.7 mmtoe), increase of ~50% from the current production of 5.3 mmtoe from the fields. RIL's share of increase in the production is 0.8 mmtoe.

The details of the increase are as follows:

- Expanded plan of development (EPOD) for Panna fields: This program, which will cost USD 140 mn, will increase the production by ~5.0 mn boe by December 2006.
- The Mid Tapti New Revised Plan of Development (NRPOD), when fully implemented in 2007 end, will increase the production by 200 mmscfd or 15.5 mn boe. The estimated total expenditure on the project is USD 492 mn.

Refining and Marketing – Complex and middle distillates focused – we like it!!

Refining margins to sustain till CY08

We expect the refining industry to sustain high refining margins till CY08, as the incremental refining capacity is likely to just match the incremental demand for petroleum products till then. Key risk to our assumption is lower demand growth in crude oil due to impact of any global slowdown.

Increased differential between sweet and sour crude and current global crude reserves having more of sour variety (75% of total), favours complex refiners like RIL that can handle more heavy and sour crude. Increasing diesel demand vis-à-vis demand for other products has led to dieselisation of the global economy. This puts refineries like RIL, producing large quantity of middle distillates, at an advantage vis-à-vis other global refiners that focus mostly on gasoline.

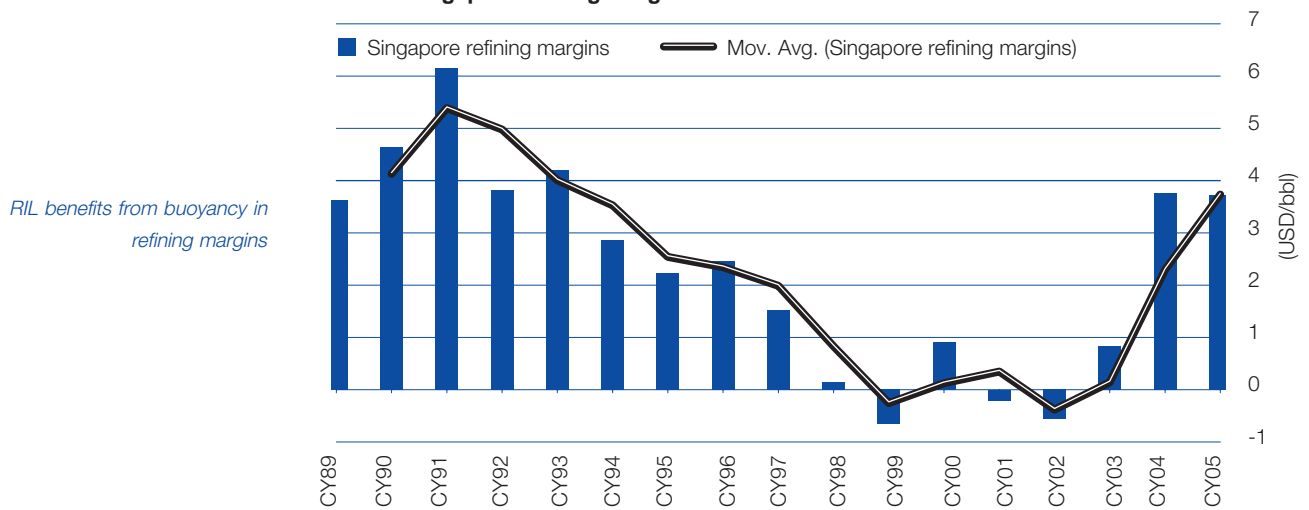
RIL has been increasing its market share in marketing of petroleum products. Its investment of 1.2 bn (INR 54 bn) in auto-fuel marketing (gasoline and diesel retail sales) is likely to create significant value as the crude prices stabilise and marketing margins return to 'normalised' range.

1. Incremental demand for products to be higher than incremental capacity addition of refiners

1.1. Refining margins have recently been buoyant, leading to windfall gains for standalone refiners

Singapore (SG) refining margins have been buoyant and have continued the trend of increasing refining margins in the last few years. SG GRMs have increased from USD 0.08/bbl (IEA Singapore Dubai Hydrocracking margins) in CY03 to USD 3.7/bbl in CY05 (see figure). Most of the increase in the refining margins has come from the high demand growth of petroleum products from emerging economies of India, China and Middle East.

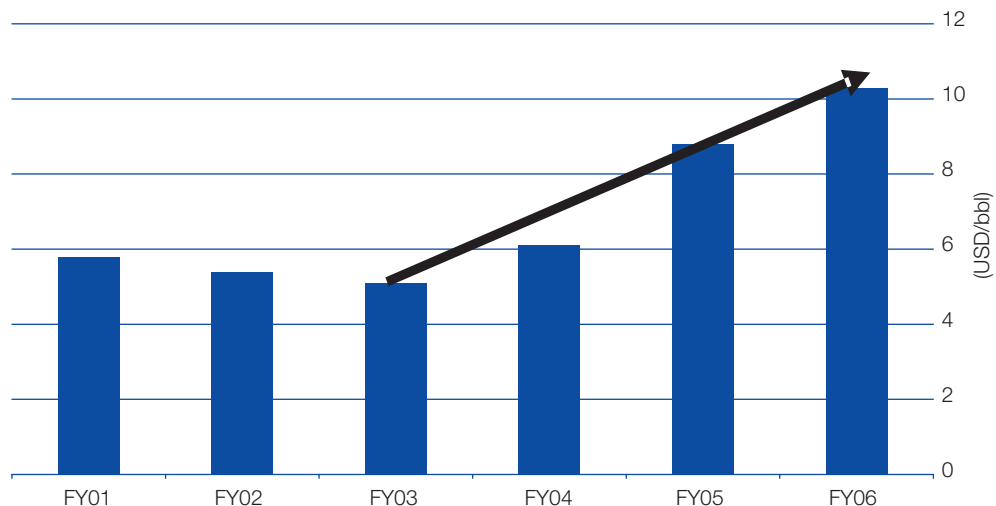
Chart 4: Singapore refining margins



Source: IEA

RIL too has been a big beneficiary of buoyancy in the refining margins. Margins have been on an upward path for the last four years (see figure) – increase from USD 5.1/bbl in FY01 to USD 10.3/bbl in FY06.

Chart 5: RIL GRMs



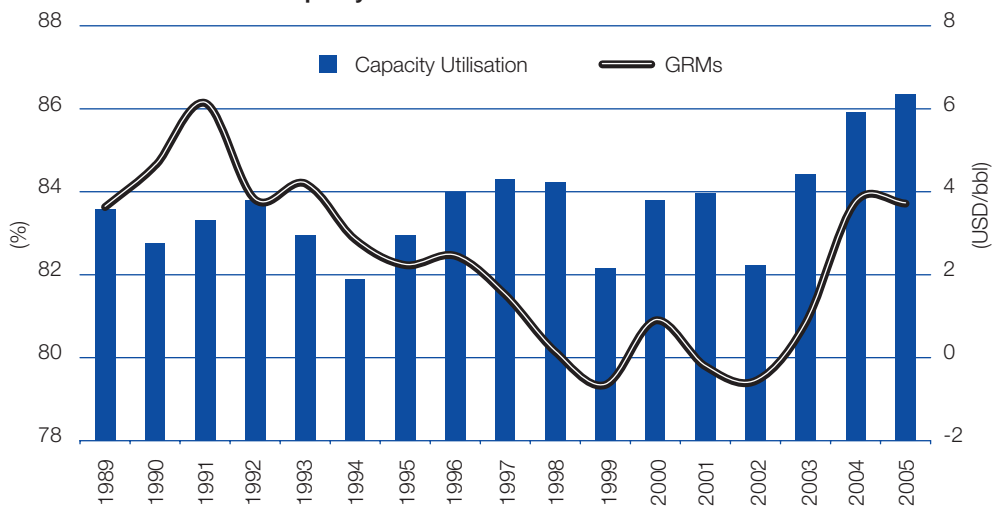
Source: Company

1.2. Capacity utilisation influences refining margins for complex refiners

We believe that refining capacity utilisation is an important variable impacting complex refining margins. Capacity utilisation has increased from a low of 82.2% in CY02 to 86.3% in CY05, resulting in an increase in the refining margins during the same period.

Chart 6: Global refineries capacity utilisation and GRMs

Going forward capacity utilisation will have a greater impact on refining margins



Source: BP statistics

Historically, refining margins of the refiners do not have a high direct co-relation with capacity utilisation. However, we believe that with high capacity utilisation and high spread between light and heavy crude, capacity utilisation will have a greater impact on the refining margins, going forward (explained in more detail in the light-heavy crude spread argument)

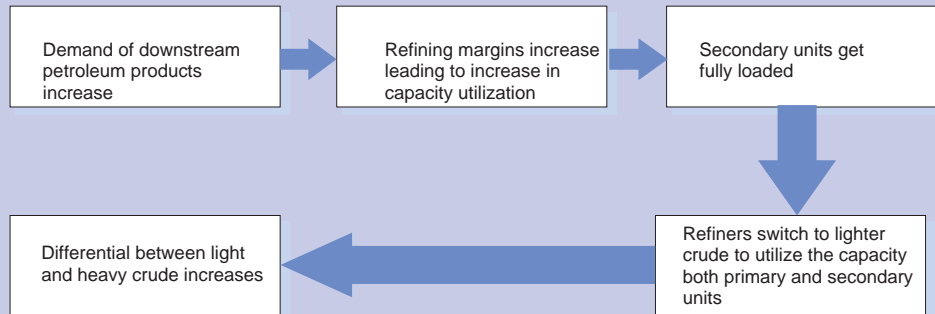
How increase in product demand leads to increase in light-heavy spread?

Generally, as demand for petroleum products increases, margins for the refiners increase as the price of petroleum products increase more than the crude prices. Higher margins provide incentives to increase the utilisation levels. However, in refining as the utilisation increases, the downstream units (secondary processing units responsible for complexity) may get fully loaded before the primary distillation reaches its maximum capacity utilisation levels.

Refiners have the flexibility to avoid the capacity constraint. By switching to lighter crude oil mix (which do not require as much secondary capacity as the heavier mix), the refiners increase the capacity utilisation. This leads to an increase in the demand of light crude which increases the prices of light crude more than the heavier ones, leading to an increase in the differential between the light and heavy crude.

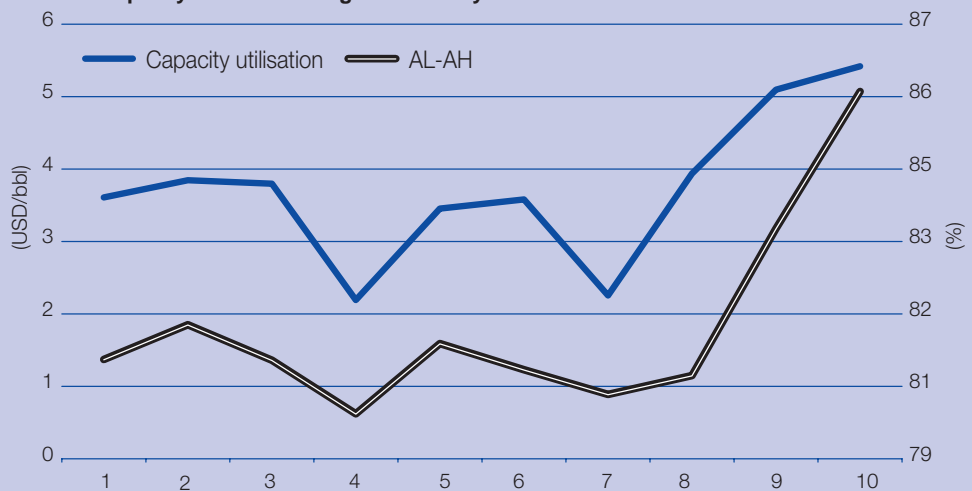
We have seen that the utilisation levels have led to increase in light-heavy spread in the past

Fig. 8: Increase in product demand leads to increase in light-heavy spread



Source: Industry, Edelweiss research

Chart 7: Capacity utilisation vs light and heavy crude differential

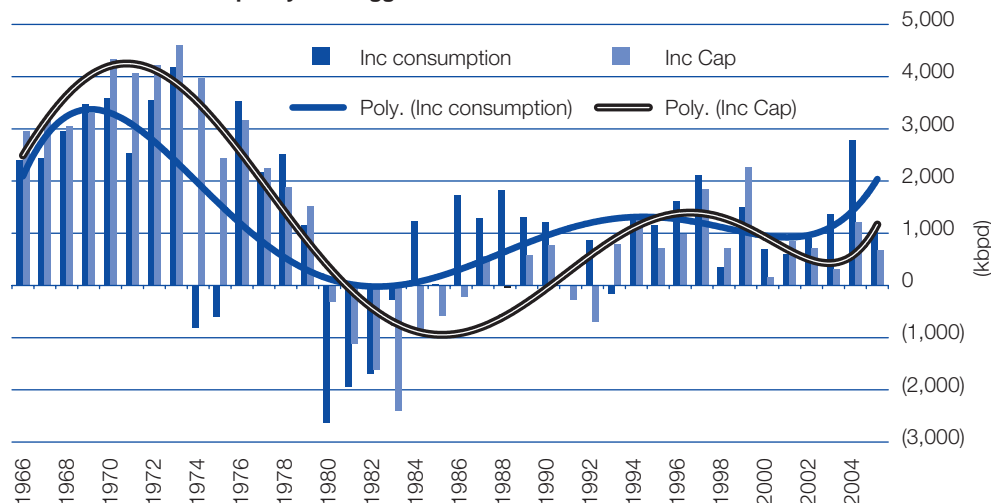


Source: Bloomberg

1.3. Capacity addition has lagged production demand

Refining industry has been responding to the increase in consumption demand for the products, albeit with a lag (see figure). This has led to higher capacity utilisation of the refineries. Refining industry's capacity utilisation has increased, as the industry had been showing low returns on investment due to overcapacity during last two decades.

Chart 8: Increased capacity has lagged incremental demand

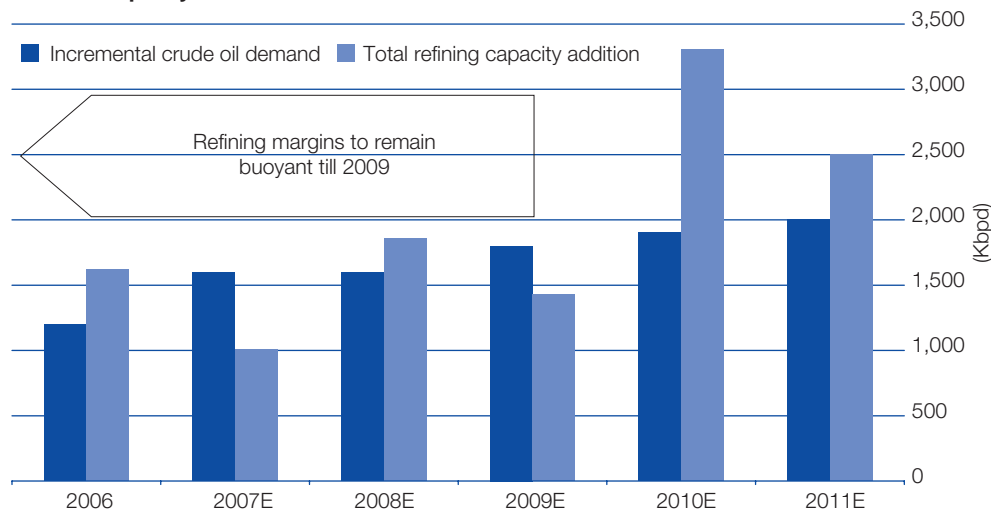


Source: Edelweiss research

1.4. Incremental capacity is more than incremental demand till 2009, delays in the capacity

As per a bottom-up assessment of refinery projects done by International Energy Agency, Paris, refinery capacity growth will keep pace with global demand through 2009, and rise sharply during 2010-11. The agency expects the total refinery primary distillation capacity to increase by 11.7 mbpd (including refinery creep) during 2006-11 compared with a demand increase of 10.1 mbpd during the same period. The estimates have factored in the delays in the capacity.

Chart 9: Capacity addition vs incremental demand



Source: Edelweiss research

Refining capacity growth keeping pace with global demand till 2009

We have listed some large capacities in the Annexure V.

Key risk to such an assumption is the refinery coming up faster than planned and fall in the global demand. However, we see the demand projections as conservative, since International Energy

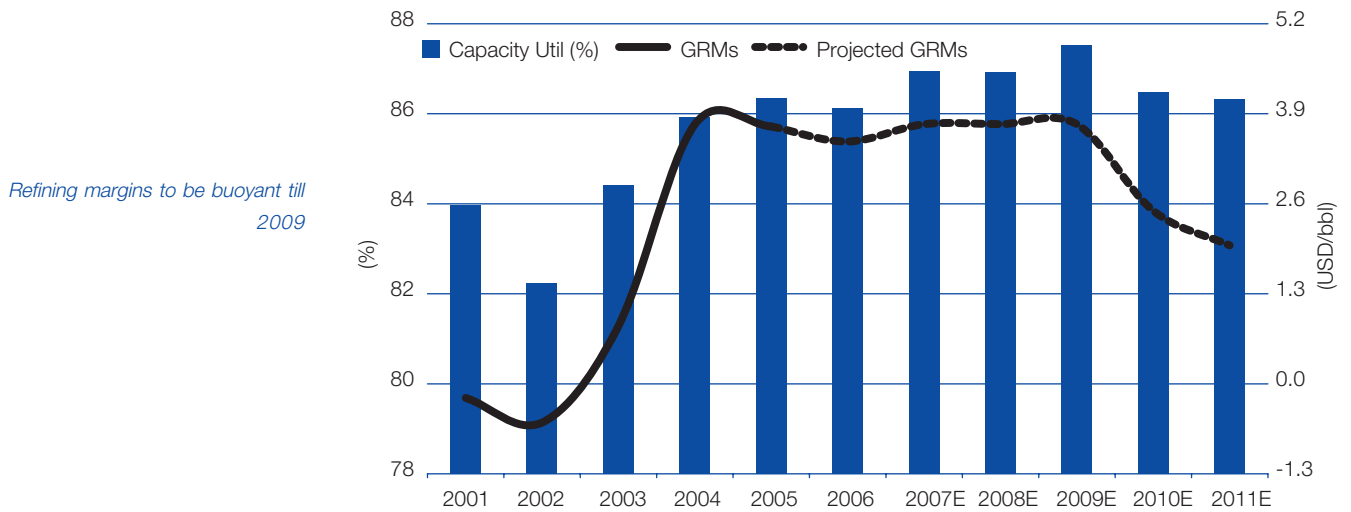
Agency (IEA) forecasts the world GDP growth rate to increase by slightly below 3.5% compared with International Monetary Fund (IMF) forecast of around 4.5% for the next two years. Current refining margins are low due to glut in distillate products, absence of major hurricane disruption in the US, and restoration of the US Gulf coast refining capacity. We believe that the lower margins are temporary and will return to higher levels, following reduction in the current inventory levels.

Upsides to the above estimates, leading to an increase in the refining margins, will come from higher GDP growth rate and higher elasticity of demand vis-à-vis the global real GDP growth rate.

1.5. High capacity utilisation of the refiners till 2008

We have used the IEA estimates, which indicate that refining capacity utilisation will remain high till 2009. We have become bullish on the sustainability of the refining margins.

Chart 10: Capacity utilisation and refining margins



Refining margins to be buoyant till 2009

Source: IEA, Edelweiss research

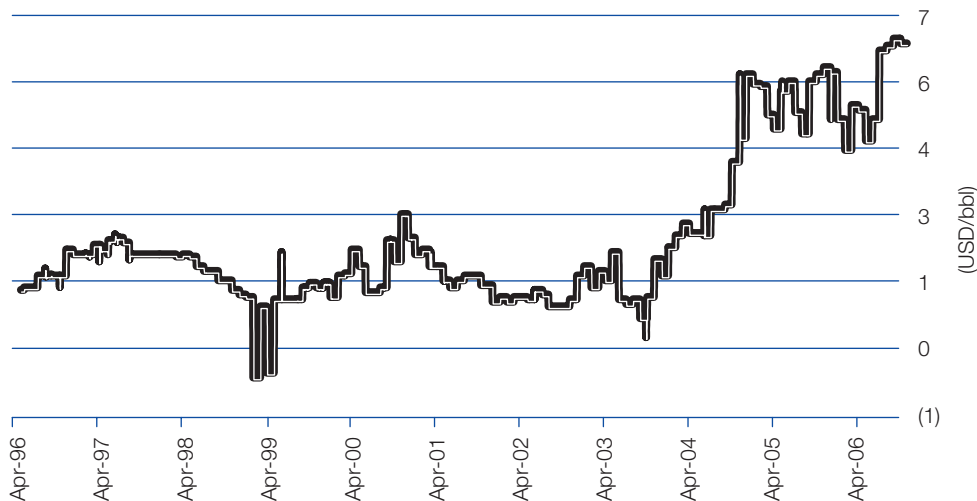
Based on our assumptions of the sustained high capacity utilisation, we estimate that the refining margins will be buoyant till 2009.

2. Light-heavy differential to sustain margins for more complex refiners like RIL

2.1. Buoyancy in demand led to an increase in the light-heavy differential

Differential in prices between light and heavy crude have increased in the recent past, which has led to an increase in the refining margins for the complex refiners. As shown in the figure below, the differential between prices of Arab Light and Arab Heavy have increased from USD 0.5-1.5/bbl to USD 4.0-6.0/bbl. The differential is hovering at around USD 4.0-6.0/bbl, in the high range.

Chart 11: Heavy light differential



Source: Bloomberg

Crude reserves slate puts complex refiners at an advantage

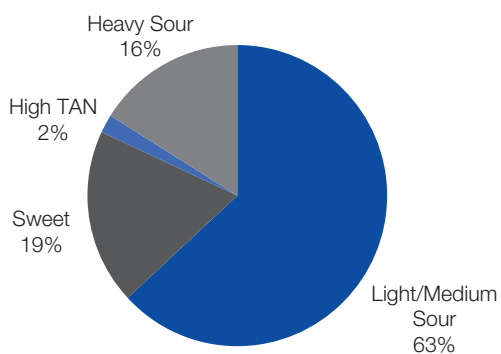
We believe that the differential has increased due to the buoyancy in the demand of petroleum products, leading to an increase in the capacity utilisation, which we have explained in the description block. With our expectation of high capacity utilisation in the industry, it is implicit that light-heavy crude spread is likely to become higher, going forward.

2.2. Global crude reserves also favour high differential between sweet and sour crude

There has been an increasing demand of sweet crude due to tighter specification of crude. As complex refiners are capable of using sour crude, the future of the refining industry makes it skewed in favour of the complex refineries.

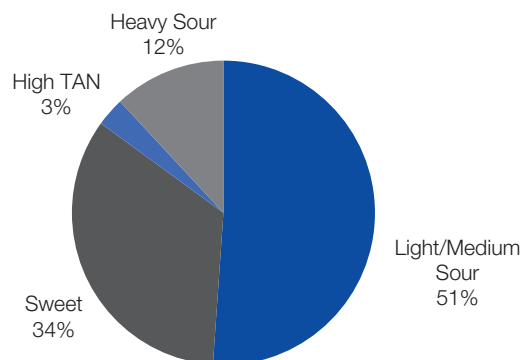
Moreover, approximately 75% of the global crude reserves are of the sour variety compared with the demand slate of 63%, fortifying our view that the complex refiners may have better times ahead.

Chart 12: Global crude reserves



Source: Valero

Chart 13: Global crude demand



Source: Valero

3. Dieselisation of the global economy puts RIL’s refinery at an advantage

Increasing diesel demand vis-à-vis demand for other products has led to dieselisation of the global economy. This puts refineries like RIL, producing large quantity of middle distillates, at an advantage.

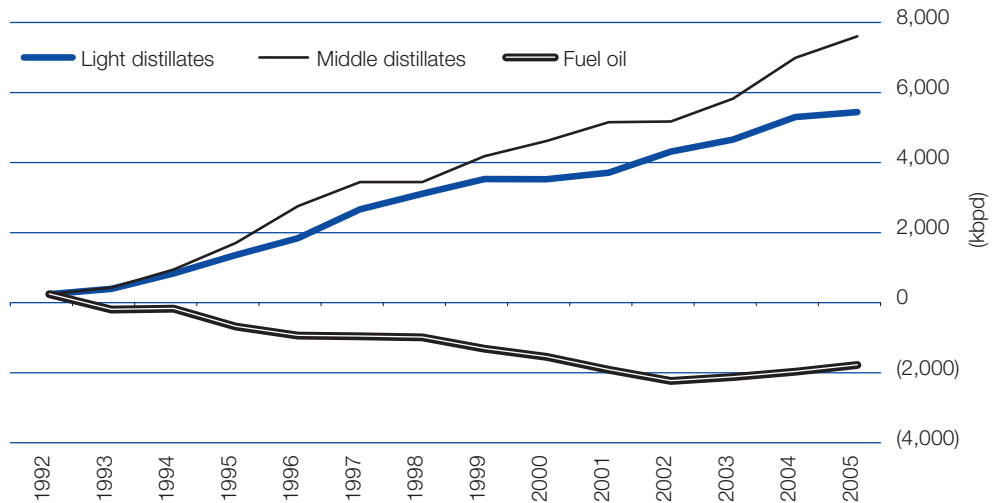
Diesel demand has increased globally due to the fuel’s price economics, greater efficiency compared with gasoline, and technological advances such as common rail direct injection (CRDI) technology and the particulate filter. Diesel cars are now becoming popular due to their strong torque and durability. Lower polluting effects of the diesel engine and improvement in its performance boosted market penetration of diesel engines from 32% in 2000 to 46% in 2004.

Diesel demand has increased due to fertilisers, price economics, greater efficiency and the technological advances

3.1. Demand mix favours a middle distillate heavy refinery

Global demand of the middle distillates has outgrown the demand for all other products. Demand has increased from higher diesel vehicle sale in Europe and high demand from the aviation sector.

Chart 14: Global demand increase for refined products



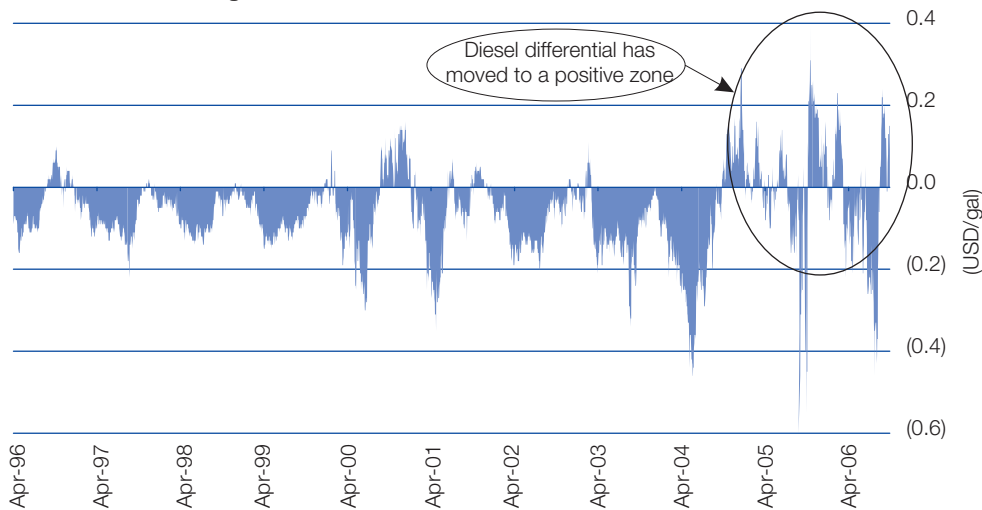
Source: BP statistics, Edelweiss research

3.2. Current refining margins favour diesel production against gasoline (petrol)

Increase in the diesel demand has led to the diesel prices moving from the discount to a premium mode (see figure). This has moved the dice in favour of the diesel heavy refiners. We expect this trend to continue, which would benefit complex refiners like RIL.

Chart 15: Diesel less gasoline

Diesel prices now command higher premium compared to gasoline



Source: Edelweiss research

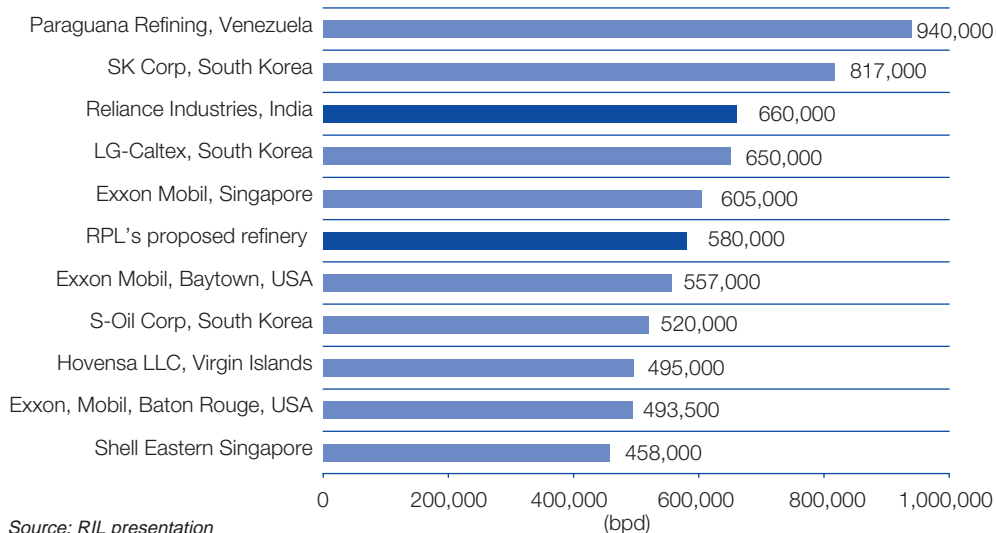
4. RIL refinery geared to take advantage of all the above trends

4.1. Post expansion, RIL will have the largest single location refinery in the world

RIL is the largest private sector refinery

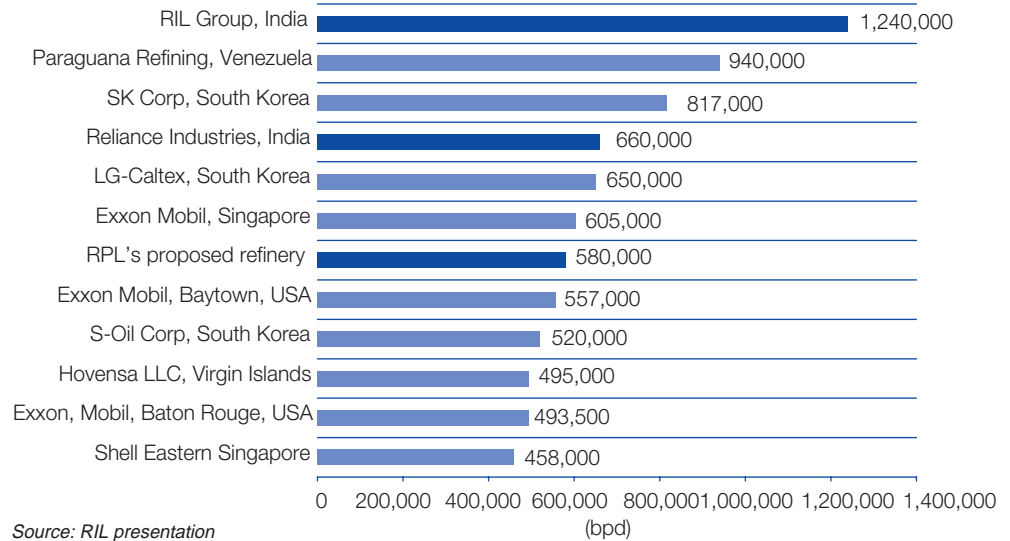
RIL has the largest private sector refinery in the country with a refining share of more than 20%. Its existing capacity is 33.0 MMTPA (660 kbpd). RIL is setting up a 29 MMTPA (580 kbpd) refinery through its 75% subsidiary, Reliance Petroleum Ltd (RPL), in Jamnagar SEZ (special export zone) at cost of USD 6.0 bn (INR 270 bn). After the expansion, RIL will have the largest single location refinery in the world.

Chart 16: Amongst largest refineries globally



Source: RIL presentation

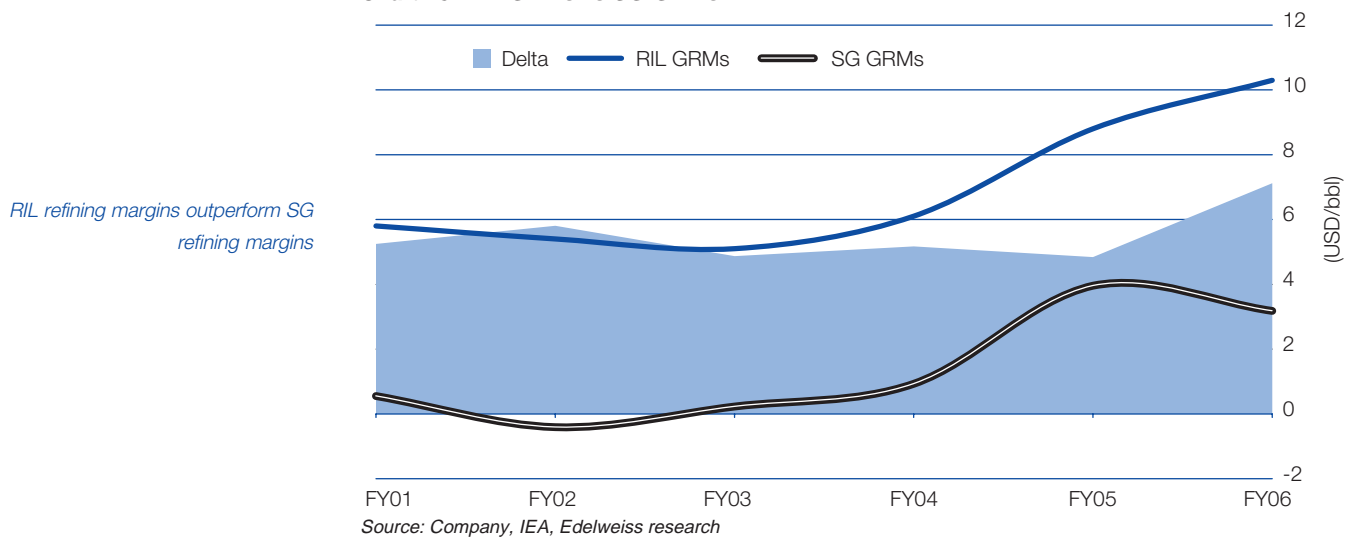
Chart 17: RIL: Amongst largest refineries globally



4.2. Complexity of refinery has made RIL refinery continuously outperform the SG GRMs

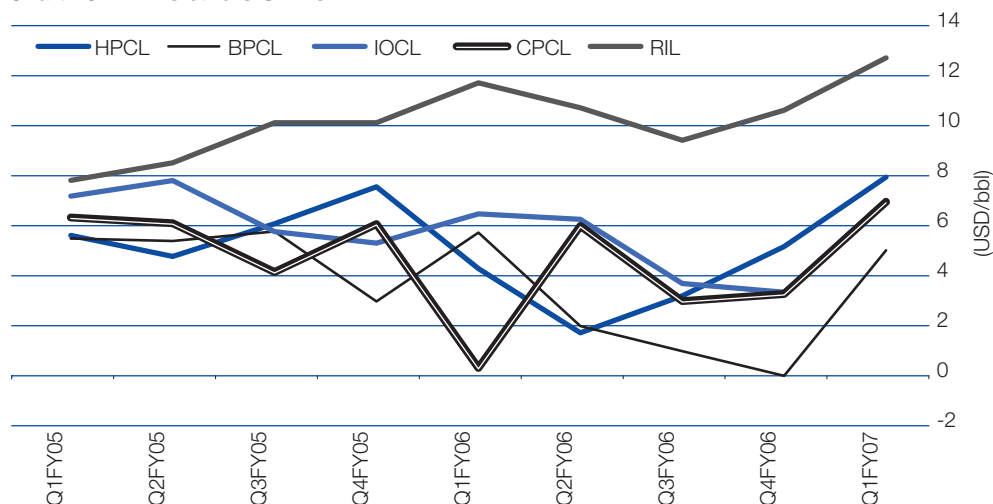
RIL's complexity of 10.3 is higher than the average of the region. This, coupled with RIL's large capacity, provides the company a sustainable advantage. RIL has been continuously outperforming the regional refining margins. We have plotted the SG GRMs and RIL GRMs to show the refining margins' out performance.

Chart 18: RIL GRMs vs SG GRMs



Reliance has outperformed the Indian refiners in the refining space as seen in the chart below:

Chart 19: RIL vs others GRMs

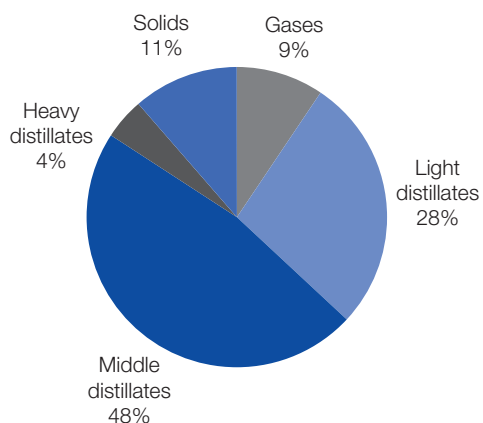


Source: Industry, Company

4.3. RIL refinery is diesel heavy

RIL's product slate is middle distillate heavy. Middle constitutes 48% of the total production. RIL is well-placed to take advantage of the emerging trend of higher margins in diesel vis-à-vis gasoline.

Chart 20: Reliance product slate



High proportion of diesel to take advantage of the dieselisation of the global economy

Source: Company

5. Marketing is a long-term growth story; will improve refining margins for RIL refinery

5.1. RIL has around 1300 operating retail outlets

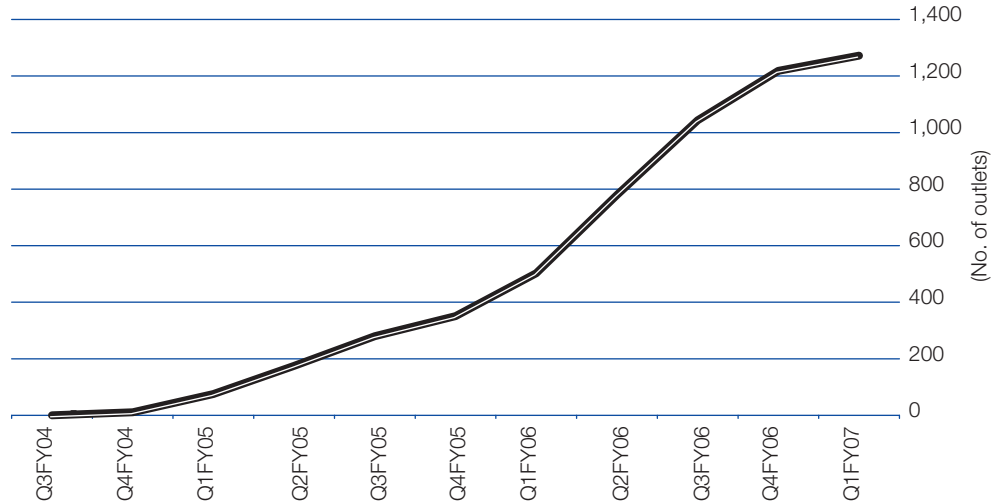
After GoI opened up the marketing of petroleum products in India, RIL got an approval to set up 5,849 retail outlets in the country. As per the plan submitted to the GoI, RIL plans to put up 1.7 mn kilolitres as against the existing tankage capacity of around 12.9 mn kilolitres. It plans to put up the coastal terminal by ocean tankers till it acquires a critical mass to put up product pipelines across the country. The company intended to sell around 12.5 MMTPA using the outlets or TPO of around 220 KL/month.

RIL has an approval to set up 5,849 outlets

Marketing outlets are attractive because they provide higher margins vis-à-vis the export market due to shield of import duties and transportation and handling costs. Till Q1FY07 end, RIL had spent USD 1.2 bn to fund its retail outlet expansion to 1272 outlets. Though the company

started late, it ramped up quickly in FY06. Although under-recoveries in the sector have slowed the expansion rate, it is expected to gather pace, as outlook for the sector improves with margin improvement.

Chart 21: RIL outlets growth

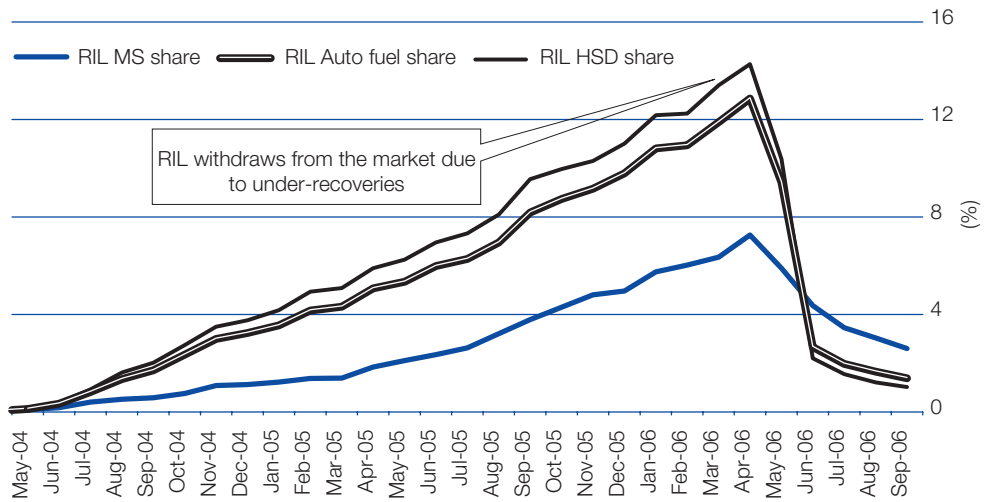


Source: RIL, Edelweiss research

5.1.1. Throughput of the outlets are high

Post rollout, RIL had been successful in capturing significant market share from the national oil companies (NOCs). However, the under-recovery in the sector forced RIL to peg the prices of products higher vis-à-vis the NOCs, leading to a dramatic fall in the market share for the company.

Chart 22: RIL auto fuel market share



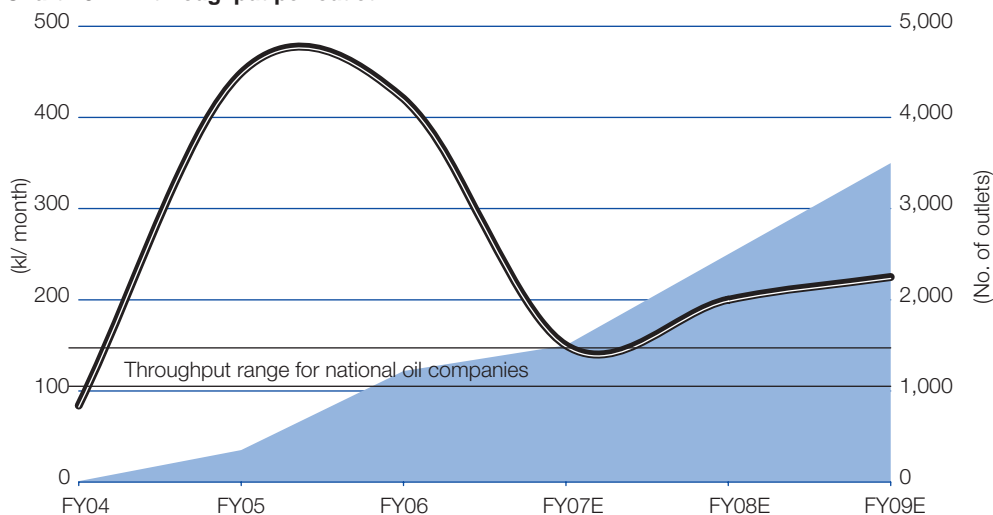
Current throughput per outlet (TPO) has fallen due to losses in autofuel.... set to recover

Source: Industry

RIL had demonstrated its marketing capability by clocking high throughput per outlet (TPO). We do accept that the company had advantage of cherry-picking the outlet location and focusing initially only on the high potential zone, which led to high TPO. However, we must also indicate that the company had a disadvantage of not having a pan-India presence, which made attracting large customers difficult. Post full scale up of the current expansion plans, we expect RIL to clock TPO of 225 KL/month, higher by around 40-50% than the TPO of incumbent oil marketing companies (OMCs).

Chart 23: RIL throughput per outlet

We expect RIL TPO to remain at level higher than other OMCs

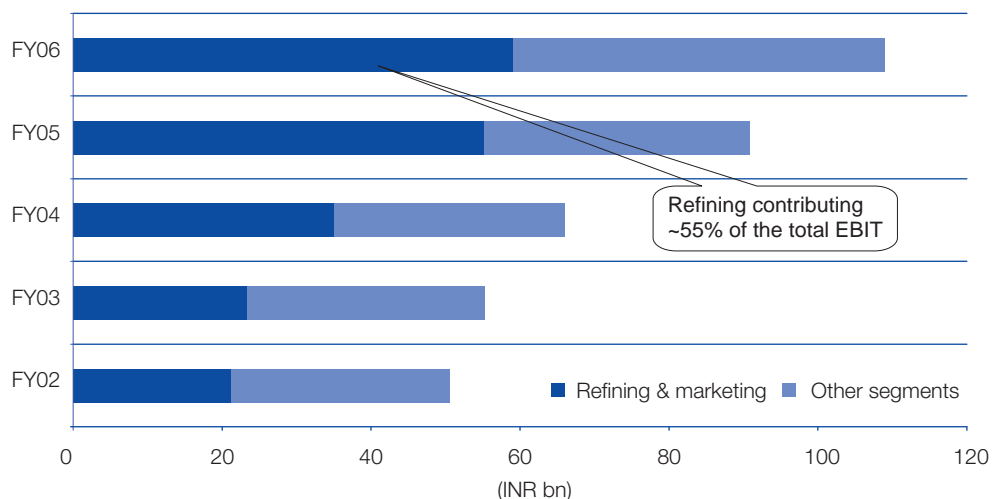


Source: Edelweiss research

6. Refining business will remain a significant contributor to RIL's EBIT (> 40%)

Historically, RIL's refining business has contributed significantly to its overall earnings. Recent improvement in the refining margins has led to higher share of refining EBIT. RIL had to bear under-recoveries on auto-fuel sales in FY06, else its R&M share of would have been higher. RIL's FY06 EBIT stood at INR 59.2 bn.

Chart 24: Contribution of refining to the EBIT



Source: Company

We expect RIL to report stable EBIT of INR 64-68 bn till FY09 (R&M share to remain at 45-50% till FY09). Afterwards, the share is expected to decline with the beginning of production of gas from RIL's KG-D6 block and slight moderation in the refining margins. RPL's new refinery, whose full impact is expected from FY10, is expected to report EBIT of INR 55 bn FY10 onwards (RIL owns 75% in RPL). Adjusted for the new refinery, contribution from refinery segment is expected to remain at more than 40% of RIL's EBIT.

Chemicals

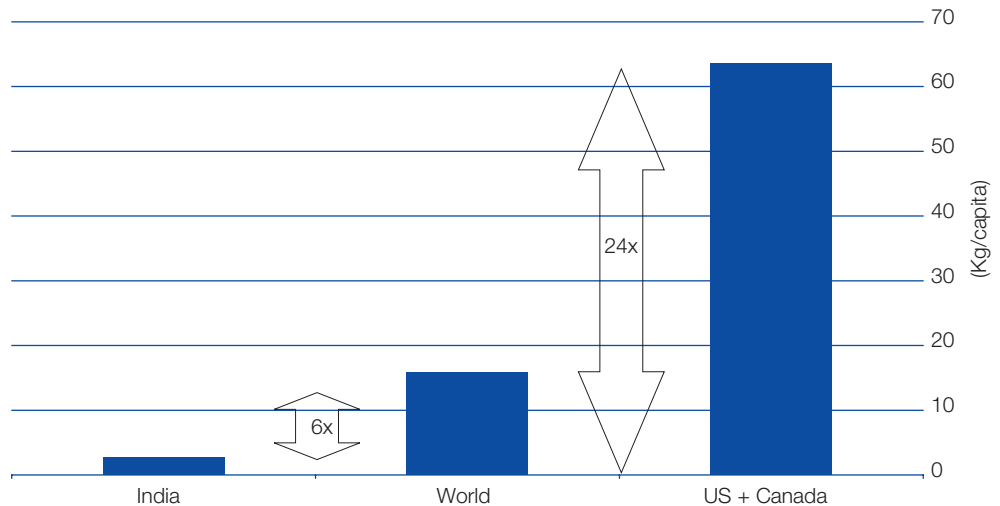
Lower consumption of petrochemicals in India compared with the average global consumption is the key driver for growth in the Indian petrochemical industry. RIL dominates the petrochemicals space with more than three-fourth market share and is best-placed to take advantage of the sustained growth in the industry. However, RIL has recently slowed its plans of expanding its petrochemicals capacity due to impending over-supply in the petrochemicals capacity.

RIL has recently put up its polyester capacity and bets for the growth of the polyester demand due to increase in the textiles exports from the country. We expect margins in RIL’s petrochemicals segment to sustain till FY08 end, after which, they may moderate.

Indian demand of petrochemicals has lagged the global market

India has lagged the world in the consumption of polymers. Indian current per capita polymers demand (PE+PVC) is 2.7 kg as against 15.9 kg for world and 63.6 kg for the US and Canada.

Chart 25: India demand versus world



Source: Industry

Lower demand has led to higher growth in demand for petrochemicals

Considering that India is amongst the fastest growing countries in the world, we expect its petrochemicals consumption to increase, going forward. Polymer demand has already increased by 5.9% in last five years and 9.3% in the last decade. With the Indian GDP expected at ~8%, we expect the consumption levels to grow at 9% CAGR, for the next five years.

We expect petrochemical consumption to grow at a CAGR of 9% in the next five years

Table 8: Polymer demand elasticity

| Term | Polymer consumption growth % | Demand elasticity (x) |
|---------|------------------------------|-----------------------|
| 15 year | 11.2 | 1.9 |
| 10 year | 9.3 | 1.5 |
| 5 year | 5.9 | 1.0 |

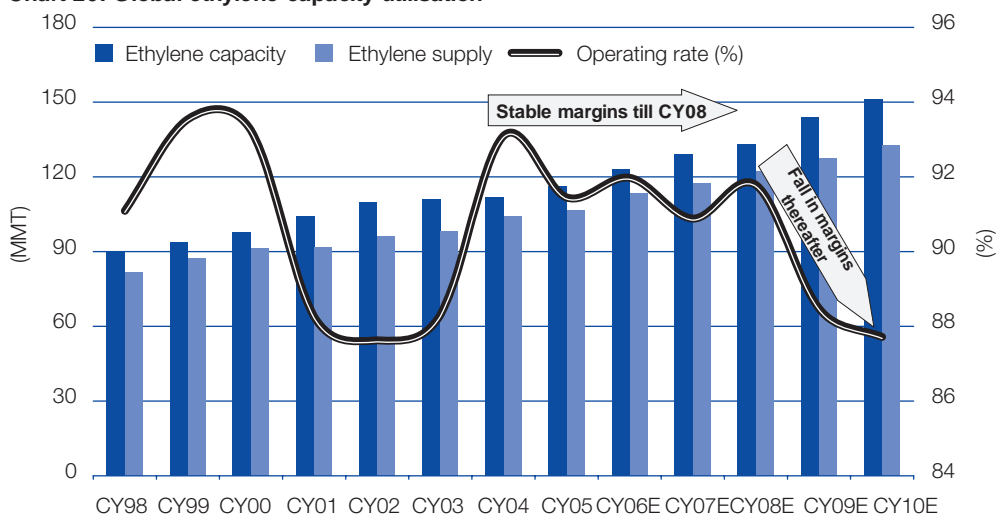
Source: CRIS Infac, Edelweiss research

Delay in expansion of global capacity has pushed the over-supply situation to FY09

Middle East’s petrochemicals capacity has been delayed, pushing the over-supply situation to FY09. This ascertains our view that the buoyancy in margins will sustain till FY08.

We estimate RIL to be less impacted from the expected surplus of olefins capacity in the Middle East. RIL produces olefins from a naphtha cracker producing higher proportion of propylene, while olefin capacities in the Middle East are based on gas-crackers and are more focused on ethylene production. Since the proportion of ethylene produced by gas-based crackers in the Middle East is likely to be more than the consumption, ethylene margins will fall globally. Propylene margins, on the other hand, are likely to remain at healthy levels, auguring well for RIL. Further, RIL's integrated capacity will help it to combat any fall in margins.

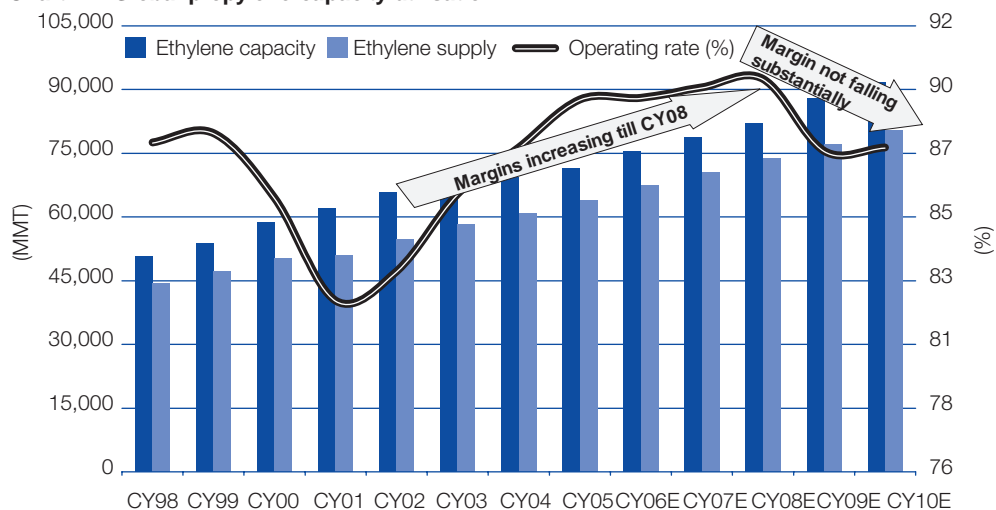
Chart 26: Global ethylene capacity utilisation



Source: Industry, Edelweiss research

Fall in ethylene margins is expected to be more than the propylene margins

Chart 27: Global propylene capacity utilisation

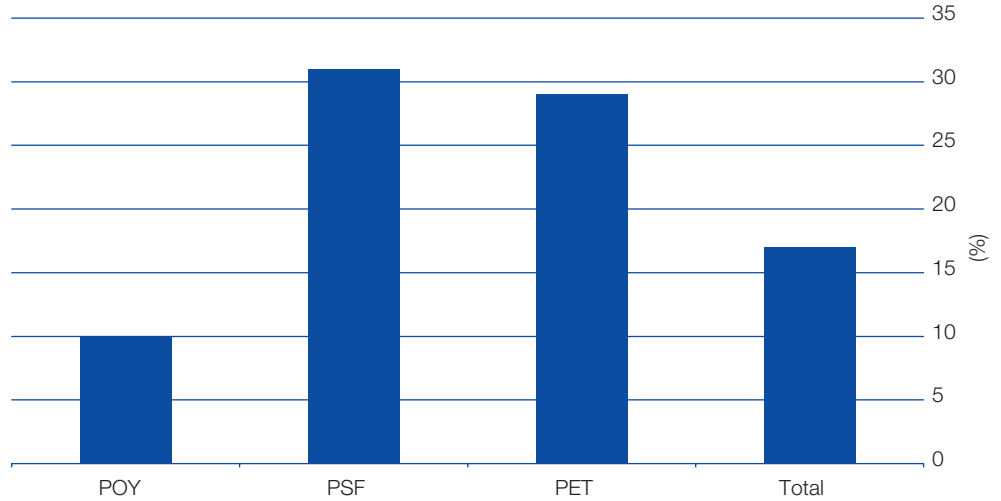


Source: Industry, Edelweiss research

RIL bets on the polyester chain through aggressive expansion

India has seen more than 10% growth in the demand of polyesters and trends in the industry indicate that the demand for the polyesters will grow at more than 10% CAGR for the next few years.

Chart 28: Growth in petrochemical industry (Y-o-Y)

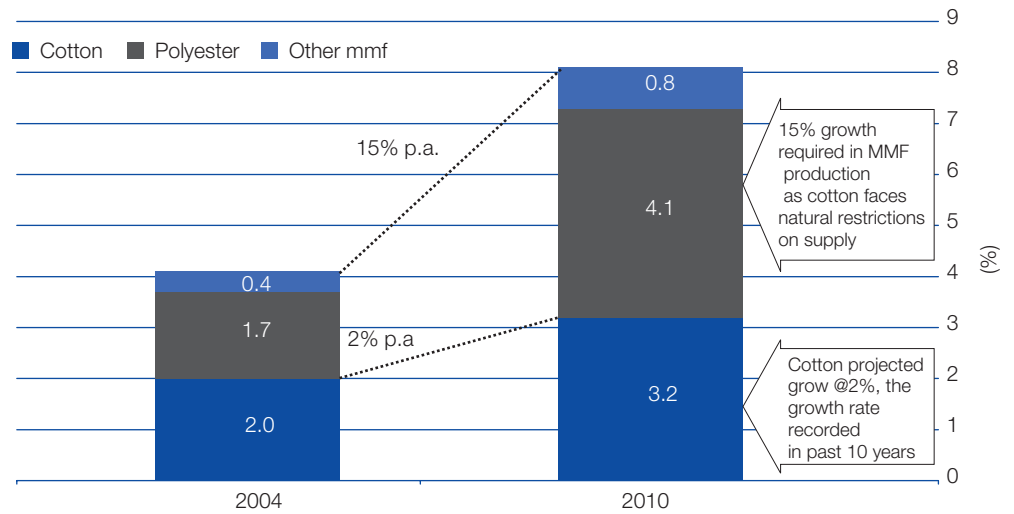


Source: Company

Most of the growth will come from increasing exports of Indian textiles to the US and the European markets. CRISIL expects the demand of the total textiles to grow at more than 8% for the next five years (see figure below). It also expects the demand of polyester to increase by 15.8% due to natural restriction on supply of cotton.

Chart 29: Textile demand

Polyester demand to increase by 15-16% CAGR for the next five years

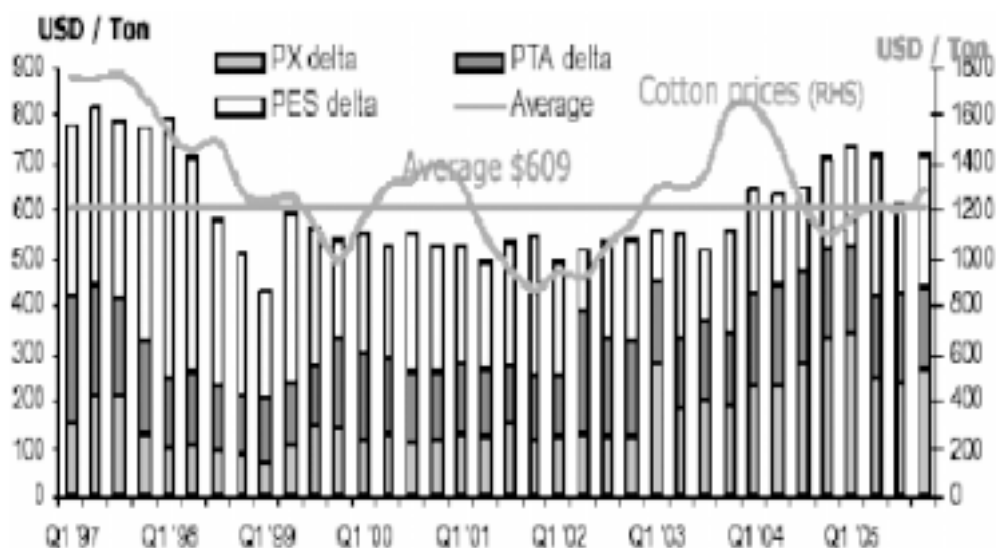


Source: Crisil

Integrated margins of polyesters have been stable in the last few years (see figure below).

Chart 30: Polyester integrated margins

Polyester integrated margins have been less volatile



Source: Company

RIL has recently expanded and commissioned its polyester capacity (0.32 MMTPA PFY and 0.23 MMTPA PSF), becoming one of the largest polyester producers in the world.

Table 9: Polyester global majors

RIL has emerged as the largest polyester producer

| 1980 | | 2000 | | 2005 | |
|---------------|-----|---------------------|------------|-----------------|--------------|
| Producer | KTA | Producer | KTA | Producer | KTA |
| DuPont | 841 | Nan Ya | 1,035 | Reliance | 1,700 |
| Celanese | 605 | Reliance | 779 | Nan Ya | 1,080 |
| Hoechst | 395 | KoSa | 700 | Sanfangxiang | 1,050 |
| AKZO | 316 | Teijin | 698 | Yizheng | 945 |
| Eastman | 302 | Sam Yang/SS (Huvis) | 658 | Yuangdong | 900 |
| Rhone Poulenc | 248 | Hualon | 575 | Tuntex | 885 |
| Teijin | 219 | Far Eastern | 604 | Far Eastern | 781 |
| Toray | 172 | DuPont | 583 | Huvis | 750 |
| ICI | 155 | Tuntex | 561 | Rongsheng | 650 |
| Monsanto | 146 | Toray | 543 | Tongkun | 640 |

1982: RIL commissioned first polyester plant of 10 KTA

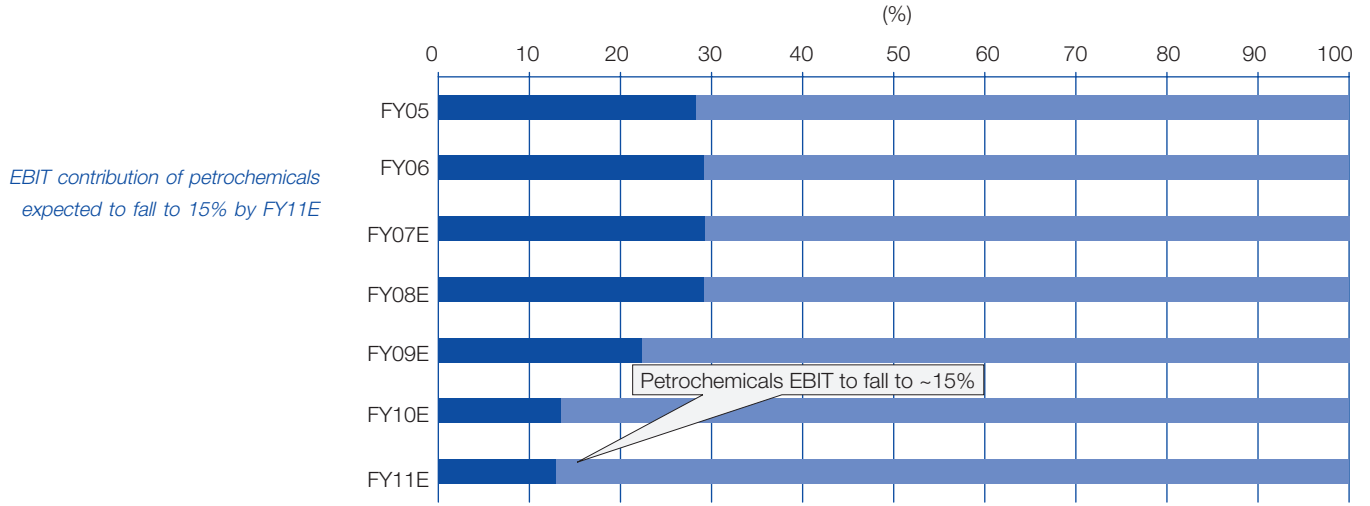
US, EU, Japan → Taiwan, Korea → China, India

Source: Company

Cash flows and EBITDA of petrochemicals business

We expect RIL to report stable EBIT of INR 55-58 bn till FY08, after which we estimate the EBIT to fall to INR 35 bn due to moderation in the petrochemical margins. EBIT contribution is expected to fall from 40% (till FY08) to 15%.

Chart 31: Contribution of petrochemicals to the EBIT



Source: Company, Edelweiss research

New Businesses

✦ RIL's recent venture into retailing may be another value driver

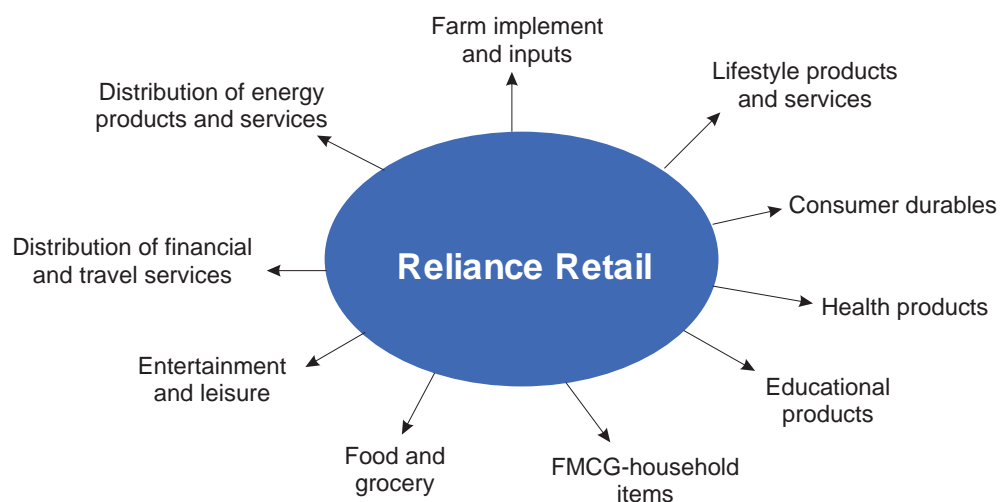
RIL's retail venture is a play on India's consumption story

Organised retailing is set to grow at more than 30% CAGR till FY10 (please refer Annexure VIII) due to increase in the income levels and favourable demographic factors. RIL's venture into retailing is a part of the company's philosophy to target the consumption plays in the country. The company also plans to take advantage of the inefficiency in the system by getting rid of middlemen from the distribution system. This strategy is likely to offer a larger value to the farmers and consumers.

RIL announcement of huge plans about venturing into retail

During the 32nd RIL AGM, the company announced its venture into consumer retailing through Reliance Retail Limited (RRL), its wholly-owned subsidiary. The venture is targeted at catering to both economic and premium segments of the market across 1,500 towns and cities through mixed retailing formats and ~500,000 employees. It involved setting up convenience stores, super-market, specialty stores, and hypermarkets at a cost of INR 250 bn (USD 5.6 bn) including equity investment of INR 100 bn (USD 2.2 bn). RIL's retail venture, once fully operational, is likely to generate revenues of ~INR 900 bn (~USD 20.0 bn).

Fig. 9: Reliance retail forays in the following



Source: Company

On November 3, 2006, RIL launched its first set of retail outlets comprising 11 stores (2000-2500 sq. ft. each) in Hyderabad, which is a part of its pilot project before the rollout in the entire country. The 11 "Reliance Fresh" outlets plan to sell fruits, vegetables, and dairy products. As per the media reports, RIL now plans to launch stores in 784 cities and 6,000 bazaars with over 100 mn sq. ft. of retailing space by FY11.

At full scale-up Reliance Retail could be worth INR 435 per share

We have tried to model Reliance Retail Ltd (RRL) based on current industry benchmarks and estimate that by FY13 (when we estimate the full scale-up to happen), RRL could clock revenues of more than INR 900 bn (USD 20 bn) and profits of ~INR 35 bn (USD 0.78 bn). Then, RRL is likely to be valued at ~INR 531 bn (USD 11.8 bn) or INR 435 per RIL share.

We estimate Reliance Retail to show profits of INR 35 bn by FY13

✦ RIL's investment in real estate – another growth story shaping up

RIL is planning a massive venture into real estate, largely by setting up special economic zones (SEZs) in various parts of the country. (Please refer Annexure IX for benefits of SEZ).

*25,000 acres SEZ project at
Haryana*

RIL Ventures Ltd (RVL), RIL's 100% subsidiary, signed a joint venture (JV) agreement with Haryana State Industrial and Infrastructure Development Corporation Ltd (HSI IDC) in June 2006 for setting up a multi-product Special Economic Zone (SEZ) in Haryana. Govt had accorded an in-principle approval for setting up of this mega SEZ project over an area of 25,000 acres in Mar 2006.

As per the agreement:

- RVL acquired 1,395 acres of land near Garhi Harsaru in Gurgaon district for INR 3.6 bn (USD 80 mn). This implies acquisition cost of INR 2.6 mn per acre for the land
- The JV identified the location in Gurgaon and Jhajjar districts of Haryana, abutting the proposed Kundli-Manesar-Palwal Expressway on both sides as the location for the proposed SEZ
- HSI IDC gets sweat equity, without any investment at 10% of the total equity. For a three-member board, HSI IDC would nominate one director and Reliance Venture two. In case, the board strength exceeds six directors, HSI IDC will nominate two directors
- RVL also proposes to set up a power plant of 2,000 MW to meet the requirements of the SEZ, an international cargo airport, inland container depot, a dry port, and railway connections
- The SEZ would focus on emerging industries like nanotechnology and biotechnology.

*RIL expects 18-20% ROCE from
the SEZ business*

The chief minister announced that the multi-product SEZ alone would catalyse an investment of over INR 1.0 tn (USD 22.2 bn) and generate direct and indirect employment for more than 500,000 persons. The expected investment, to build such huge infrastructure, is INR 400 bn (USD ~9.0 bn). As per the new sources, RIL expects returns of 18-20 per cent from this project.

As per media reports, RIL's SEZ will be divided into the following:

Table 10: Land usage in Haryana SEZ

| Usage of land | Area (acres) |
|---------------------------|---------------|
| Low polluting industries | 6,500 |
| Basic infrastructure | 5,000 |
| Commercial establishments | 5,000 |
| Residential purposes | 3,750 |
| Institutional area | 1,250 |
| Leisure | 1,250 |
| Entertainment | 1,250 |
| Total | 24,000 |

Source: RIL statement as per media reports

*SEZ is characterised by a long
gestation period*

We believe that it is too early to value the SEZ venture, as it has a long gestation period (more than 10 years) and we are yet to get more details from the company. However, considering the capital investment of INR 400 bn (USD 8.9 bn) and ROIC of 20%, we believe that the value of SEZ may be significant, as much as USD 10-12 bn, after the completion of full capital expenditure.

Risks and Concerns

✦ Fall in the tariff protection

Gol has protected refinery margins in the Indian market by keeping duty differential between products and crude. Gol has been slowly reducing the duty differential and we do not rule out the same in the near future. RIL product basket (net of exports) has an effective benefit of –USD 2.0/bbl from duty protection. Reduction in the duty differential will be negative for the company. Every 1.0% reduction in the duty differential, impact GRMs negatively by USD 0.85/bbl. Every USD 1.0/bbl reduction in duty differential impacts EPS negatively by INR 6.3 per share (-8.9% on FY07 EPS).

✦ Rupee appreciation may impact negatively

RIL is positively leveraged to depreciating currency. Depreciating currency since last few decades pegged in favour of the refiners. However, with increase in foreign investment flows and net exports, Indian currency faces possibilities of currency appreciation. This may impact RIL negatively. Every INR1.0/USD appreciation decreases RIL's EPS by INR 1.9 per share (-2.6% of FY08 EPS).

✦ Global slowdown impacting refining and petrochemical margins

Regional refining margins have been very volatile and any slow down in global demand could result in a fall in the refining and chemicals margins.

✦ Project completion on time

RIL has an impressive track record of timely project completion. This augurs well for the company, considering it is now venturing into new businesses like retail and urban development that are highly capital intensive. It is important for RIL to adhere to timeliness and complete all future projects as scheduled, otherwise delay could result in cost overrun and therefore reduced profitability.

Valuation: Our base case SOP value is INR 1,204 per share

RIL is a conglomerate with five business segments with a mix of mature and new businesses. R&M and petrochemicals production are the company's fairly old and stable businesses, while E&P, retailing, and SEZ businesses are in various stages of development being relatively new. In the past, RIL has derived maximum value from core businesses - refining and petrochemicals production. However, increasing investments in the E&P and retailing businesses means these segments are likely to be high value drivers for the company, going forward.

SOP fair value of INR 1,204 per share

Our realistic valuation of RIL, using assumptions from the confirmed news flow and 'sum-of-parts' methodology, indicate fair value of INR 1,204 per share. This is 4.7% lower than the current market price (CMP) of INR 1,263 per share.

News flows indicate upside to the SOP value of INR 1,825 per share

However, we have observed that RIL's management takes considerable time to confirm news flows about the E&P division (the segment being under various stages of exploration). We have found that by the time the news is confirmed, the stock has already reacted. Therefore, we looked at the possible upsides in RIL's valuations using inputs from recent news flows on possible gas finds and reserves. Our estimate of upside value of RIL is INR 1,825 per share, ~45% over CMP. We estimate that current stock price of INR 1,263 per share incorporates ~10% probability of all the potential upsides.

We fail to justify the current stock price with the confirmed news flows and do not rule out possibilities of upsides. We, therefore, initiate coverage on the stock with an '**ACCUMULATE**' recommendation (neutral rating with a positive bias, 0-20% return over next one year).

Table 11: Valuation parameters

| Year to March | FY04 | FY05 | FY06 | FY07E | FY08E |
|-------------------------------|---------|---------|---------|---------|---------|
| Revenues (INR) | 518,015 | 660,513 | 812,113 | 972,072 | 907,890 |
| EBITDA (INR) | 98,448 | 128,110 | 142,991 | 171,062 | 176,543 |
| EPS (INR) | 37.0 | 54.3 | 65.1 | 70.2 | 71.8 |
| EPS Y-o-Y growth (%) | 25.7 | 47.0 | 19.8 | 7.9 | 2.1 |
| CEPS (INR) | 65.9 | 86.7 | 94.5 | 103.5 | 105.5 |
| P/E (x) | 34.2 | 23.3 | 19.4 | 18.0 | 17.6 |
| P/E (x) - w/o treasury shares | 29.9 | 20.4 | 17.0 | 15.7 | 15.4 |
| Book value per share (INR) | 246.7 | 289.9 | 357.4 | 414.0 | 471.5 |
| P/BV (x) | 5.1 | 4.4 | 3.5 | 3.1 | 2.7 |
| EV/Sales (x) | 3.8 | 2.9 | 2.4 | 2.0 | 2.1 |
| EV/EBITDA (x) | 20.0 | 14.9 | 13.7 | 11.2 | 10.8 |
| Dividend yield (%) | 0.4 | 0.6 | 0.8 | 0.9 | 1.0 |

Source: Edelweiss research

We initiate coverage with an 'ACCUMULATE' recommendation

To estimate the SOP value, we have used the discounted cash flow (DCF) method to find the value of the E&P and retailing businesses, while relying on the relative valuations for the R&M and the petrochemicals businesses. Our SOP value for RIL is at INR 1,204 per share.

Table 12: SOP for RIL

| Business segment | Details of the segment | Value (INR bn) Our estimates | Value (INR per share) |
|------------------|---------------------------------|---------------------------------|-----------------------|
| E&P | Exploration & production | 368 | 302 |
| | PMT | 51 | 42 |
| | KG-D6 (gas) | 225 | 184 |
| | KG-D6 (oil) | 0 | 0 |
| | NEC-25 | 52 | 43 |
| | CBM | 40 | 33 |
| | KG-DWN-2003/1 (KG-D4) | 0 | 0 |
| | KG-III (oil) | 0 | 0 |
| R&Ms | R&M (@ EV/EBITDA = 6.0x) | 479 | 392 |
| Chemicals | Chemicals (@ EV/EBITDA = 5.5x) | 403 | 330 |
| Retailing | Retailing | 98 | 80 |
| SEZ | SEZ | 0 | 0 |
| Investments | Total investments (net of debt) | 121 | 99 |
| Total SOTP | | 1,469 | 1,204 |

Source: Edelweiss research

While we have discussed assumptions of each business below, generic assumptions for the segments are:

- Cost of capital (WACC) of 12%
- Current WTI crude prices gradually reducing to USD 45/bbl; long term crude price inflation at 2% annually
- Constant INR at 45.0 per USD
- 1 bn barrels = 5.23 tcf

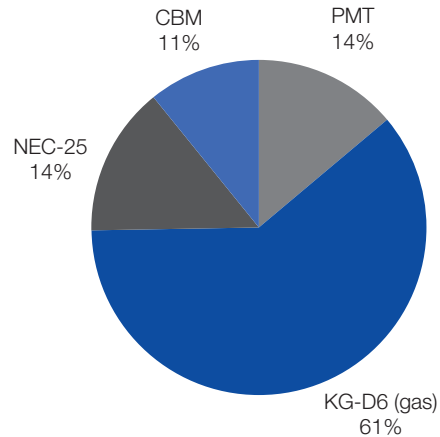
We have valued the R&M and petrochemicals divisions using the relative valuation method. The relative valuation of the R&M and petrochemical companies are separately shown in the annexure. We have valued RIL's R&M business at 6.0x EV/EBITDA and petrochemicals at 5.5x EV/EBITDA. Comparable one-year forward EV/EBITDA for R&M and petrochemical companies are at 6.8x and 6.4x, respectively. (See Annexure XIII and XIV for valuations of comparable companies)

We have discussed E&P, retailing, and SEZ valuations in detail, as these segments are key to potential upsides in the stock.

1. E&P business is a wildcard in valuations; huge upsides based on speculative reserves

We value the E&P business at INR 302 per share. We have valued the segment using the DCF method due to the different profit petroleum share of Gol (see Annexure X). KG-D6 commands higher share of the total E&P value (see chart).

Huge upsides expected from E&P

Chart 32: Value of E&P from various blocks

Source: Edelweiss research

1.1. KG-D6 basin gas is worth INR 184 per share; possibility of huge upsides exist

Our estimates of USD 1.8/boe pegs the value of the KG-D6 gas finds at INR 184 per share.

Key assumptions for the valuation are as follows:

Table 13: Assumptions for D6 block

| | |
|---|--------------|
| OGIP (tcf) | 23.3 |
| Recoverable reserves (tcf) | 14.4 |
| Recovery factor (%) | 62.0 |
| Capex (USD bn) | 5.4 |
| Capex (USD/boe) | 2.0 |
| Plateau production (mmscmd) | 80.0 |
| Natural gas blended realisation (USD/MMBTU) | 3.4 |
| Escalation in natural gas realisation (%) | 3.0 |
| NPV of D6 block (INR bn) | 249.0 |
| NPV of D6 block (USD/boe) | 1.8 |
| NPV of RIL's share (INR per share) | 184.0 |

Source: Edelweiss research

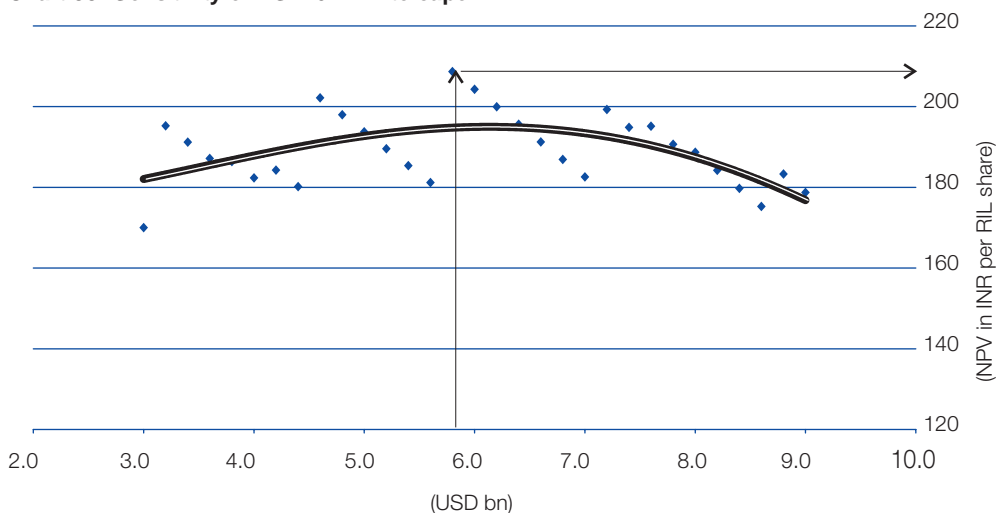
Our OGIP estimate of 23.3 tcf is based on the 2P/best estimates from GCA's report. We have assumed a capital expenditure of USD 5.4 bn, slightly higher than USD 5.2 bn estimated by RIL while submitting the field development plan to Gol.

Increase in capital costs do not significantly impact the NPV of the block

The NPV of the fields is not very sensitive to the capital expenditure on the field. We believe that the ultimate capex in KG-D6 will be the one which will maximize the NPV of the project. Key risk to the changes in the capex is the resistance from Gol. Our change in estimate of capex to USD 6.0 bn from USD 5.4 bn is likely to lead to a value of INR 209 per RIL share compared with our estimate of INR 184 earlier.

Chart 33: Sensitivity of KG-D6 NPV to capex

We expect the capex to optimise the NPV for KG-D6 block



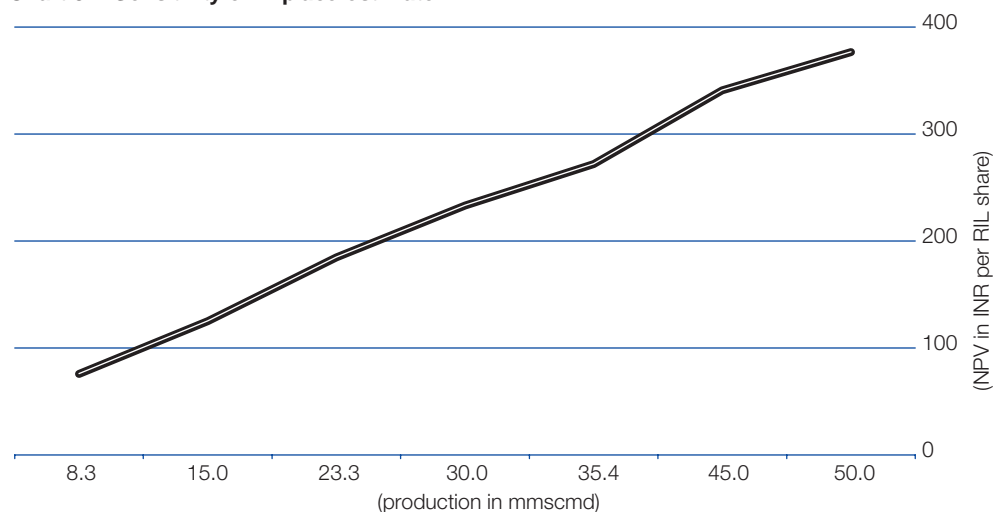
Source: Edelweiss research

Our estimates are also sensitive to the assumptions of OGIP. We have assumed an OGIP of 23.3 tcf, which is the 2P/best estimate according to the estimates done by GCA. Other in-place estimates are:

- 11.3 tcf according to the recent changes by RIL in the field development plan submitted to the ministry of petroleum
- 23.3 tcf in the GCA report of the 2P/best estimates of the reserves + resources
- 35.4 tcf in the GCA report of the 3P/high estimates of the reserves + resources
- 50.0 tcf according to statement by RIL management in O&G conference (from news reports).

On assumption of 50 tcf OGIP and 170 mmscmd production, the NPV per share works out to be INR 377 per share.

Chart 34: Sensitivity of in-place estimate



Source: Edelweiss research

1.2. KG-D6 block oil finds are speculative; upside can yield INR 63 per share

RIL had announced an oil discovery from MA-1 well and is in the process of drilling another well MB-1 to delineate the reservoir size. Based on the news reports and discussions with the management, we are positive on the finds. However, assuming any quantity oil would be speculative, hence, we have not assumed any value for the SOP value.

Upside estimates of recoverable reserves from new discoveries is 500 mn barrels

We have ascertained the value of the oil find, assuming various possibilities. Our upside estimates based on recoverable reserves of 500 mn barrels of oil and asset valuation of USD 3.4/bbl indicates an NPV of INR 63 per RIL share. Assumptions and sensitivity of the block are shown in the following table/figure.

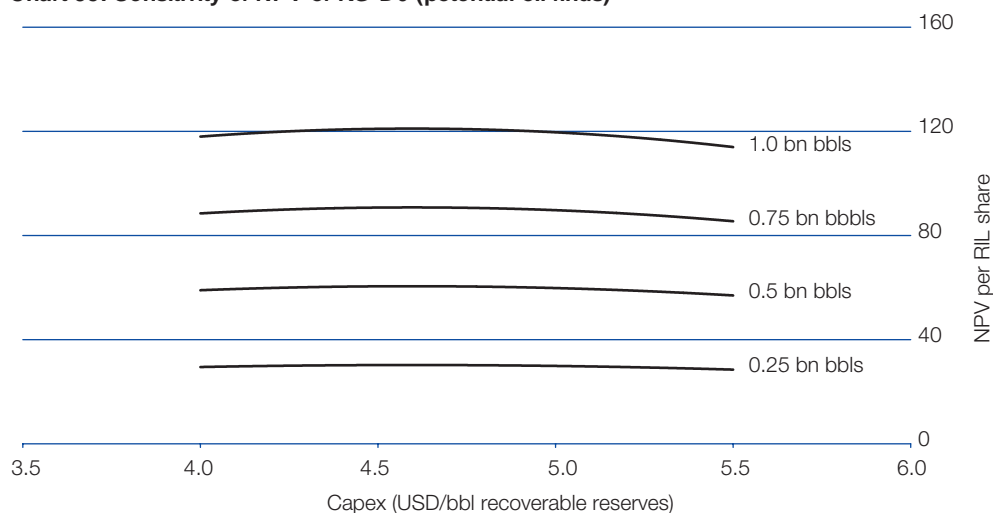
Table 14: Assumptions for KG-D6 block for oil

| | |
|---|-----------|
| OGIP (billion barrels) | 1.0 |
| Recoverable reserves (billion barrels) | 0.5 |
| Recovery factor (%) | 50.0 |
| Capex (USD bn) | 2.4 |
| Capex (USD/boe) | 4.8 |
| Plateau production (mn bbls per year) | 31.3 |
| NPV of D6 block (INR bn) | 77 |
| NPV of D6 block (USD/boe) | 3.4 |
| NPV of RIL's share (INR per share) | 63 |

Source: Edelweiss research

NPV of the potential oil finds are insensitive to capital expenditures.

Chart 35: Sensitivity of NPV of KG-D6 (potential oil finds)



Source: Edelweiss research

1.3. NEC-25

We value NEC-25 at an asset valuation of USD 2.2/boe, implying an NPV of INR 43 per RIL share. The asset valuation is higher than that of KG-D6 block due to better fiscal terms in the NEC block. At high investment multiples (IM), operator's share of profit petroleum is capped at 30% compared with 15% for the KG-D6 block.

Key assumptions for the valuation are as follows:

Table 15: Assumptions for NEC-25 block for gas

| | | |
|---|---|-------------|
| <i>Upsides on NEC-25 comes from higher gas reserves</i> | Gas-in-place (tcf) | 3.7 |
| | Recoverable gas (tcf) | 2.8 |
| | Recovery factor (%) | 74.6 |
| | Capex (USD bn) | 1.0 |
| | Capex (USD/boe) | 2.0 |
| | Plateau production (mmscmd) | 15.3 |
| | NPV of NEC-25 block (INR bn) | 52.0 |
| | Asset valuation of NEC-25 block (USD/boe) | 2.2 |
| | NPV of RIL's share (INR per share) | 42.6 |

Source: Edelweiss research

Upsides on NEC-25 come from higher gas reserves. On assuming the 3P reserves of 8.2 tcf, we estimate the NPV for the block at INR 95 per RIL share.

1.4. CBM blocks

We believe that the CBM blocks ascertain production, as they are trapped from known coal deposits.

RIL has announced reserves of 3.65 tcf of methane gas from two CBM blocks

RIL's CBM reserves come from two blocks in Sohagpur east and west. Total announced reserves are 3.65 tcf methane gas. CBM gas has lower recovery, as the gas needs to be untrapped from the coal seams. We have been conservative in assuming the recoverable reserves of 40% - midway of 2P/best and 3P/high recovery rate of another CBM producer in the country (2P recovery rate of 10.4% and 3P recovery rate of 58.9%).

We estimate CBM Sohagpur NPV at INR 33 per share. Key assumptions and valuation of the reserves are shown in the table below.

Table 16: Assumptions for Sohagpur CBM block for CBM gas

| | |
|---|-------------|
| Gas-in-place (tcf) | 3.7 |
| Recoverable gas (tcf) | 1.8 |
| Recovery factor (%) | 50.0 |
| Capex (USD bn) | 0.8 |
| Capex (USD/boe) | 2.1 |
| NPV of Sohagpur CBM block (INR bn) | 40.2 |
| Asset Valuation of Sohagpur CBM block (USD/boe) | 2.3 |
| Asset Valuation of Sohagpur CBM block (INR/SCM recoverable) | 78.0 |
| NPV of RIL's share (INR per share) | 33.0 |

Source: Edelweiss research

As per the DGH, RIL's expected CBM reserves are 10.7 tcf against the announced reserves of 3.65 tcf. RIL is undertaking exploration in other three blocks, regarding which we expect positive news flows.

Table 17: RIL CBM blocks

| Coal field | DGH estimates of reserves (tcf) | DGH estimates of reserves(bcm) |
|---------------|------------------------------------|-----------------------------------|
| Sohagpur East | 1.7 | 49.0 |
| Sohagpur West | 1.3 | 36.8 |
| Sonhat | 1.2 | 33.9 |
| Barmer (1) | 3.4 | 95.1 |
| Barmer (2) | 3.1 | 87.7 |
| Total | 10.7 | 302.5 |

Source: Gol

Applying the same asset valuation estimate of Sohagpur CBM block, we estimate the NPV of all the CBM blocks at INR 97 per RIL share.

1.5. Huge upsides in KG-D4 and KG-III-6 blocks

KG-D4 gas assumption of OGIP of 18 tcf implies an NPV of INR 110 per share.

Similarly, assumption of 500 mn barrels of recoverable reserves for KG-III-6 block implies an asset valuation of USD 3.6/boe or INR 67 per RIL share.

2. Retailing is nascent; potential to be INR 435 per RIL share business after its full rollout

RIL is in the process of rolling out its pilot project in the retailing segment. It has grand plans of investing INR 250 bn (USD 5.6 bn).

After the total rollout, the stock can be worth INR 531 bn or INR 435 per RIL share (see table below). However, we need to look at the risks such as logistics, implementation issues, and competition associated with the rollout. Moreover, we believe that RIL may come out with an IPO for its retail business to reduce its risks and monetise project execution capabilities in the early stages of investment.

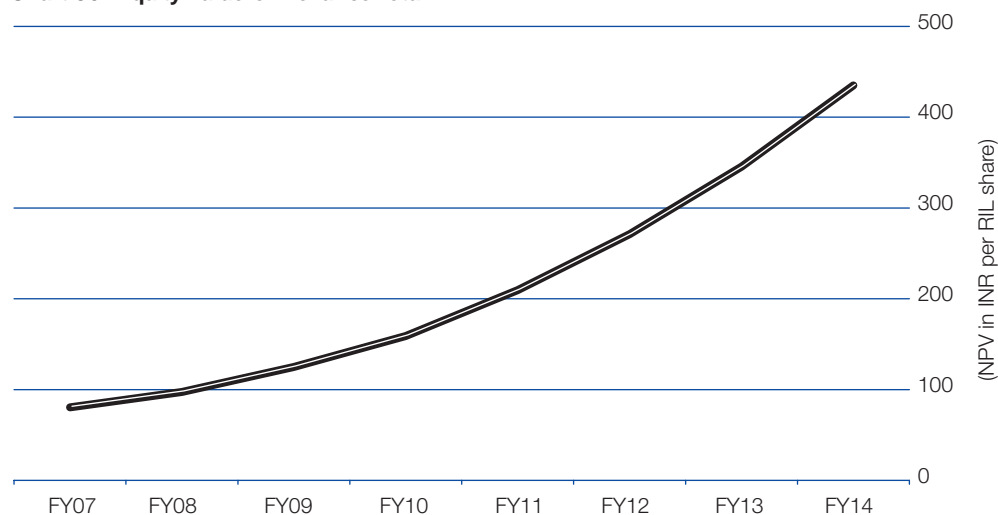
Adjusted for the risks, we estimate the equity value of the project at INR 99 bn or INR 80 per RIL share.

Table 18: Projections of Reliance retail income statement

| Year | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 | FY13 |
|----------------------------------|-------|-------|------|------|------|------|------|
| Total area at the end (mn sq ft) | 1 | 10 | 20 | 40 | 60 | 80 | 100 |
| Cumulative investments (INR bn) | 2 | 23 | 46 | 94 | 144 | 195 | 247 |
| Revenues (INR bn) | 7 | 40 | 116 | 243 | 425 | 625 | 810 |
| Revenues (USD bn) | 0.2 | 0.9 | 2.6 | 5.4 | 9.5 | 13.9 | 18.0 |
| EBITDA (INR bn) | 0.0 | 0.8 | 8.1 | 16.8 | 29.2 | 42.5 | 54.5 |
| EBITDA margins (%) | 0.0 | 2.0 | 7.0 | 6.9 | 6.9 | 6.8 | 6.7 |
| Depreciation (INR bn) | 0.1 | 0.3 | 0.9 | 1.7 | 3.0 | 4.2 | 5.5 |
| EBIT (INR bn) | (0.1) | 0.5 | 7.2 | 15.1 | 26.2 | 38.3 | 48.9 |
| EBIT margins (%) | (0.8) | 1.2 | 6.3 | 6.2 | 6.2 | 6.1 | 6.0 |
| Interest (INR bn) | 0.1 | 1.1 | 1.9 | 3.4 | 4.4 | 4.7 | 4.4 |
| Income tax (INR bn) | (0.1) | (0.2) | 1.8 | 3.9 | 7.3 | 11.3 | 15.0 |
| PAT (INR bn) | (0.1) | (0.4) | 3.6 | 7.8 | 14.5 | 22.2 | 29.5 |
| PAT margins (%) | (1.6) | (1.0) | 3.1 | 3.2 | 3.4 | 3.6 | 3.6 |

Source: Edelweiss research

Chart 36: Equity value of Reliance retail



Source: Edelweiss research

3. SEZ is similar to retailing; potential upsides exist

RIL's SEZ business is similar to the retailing business, with the differences being that the SEZ projects have larger gestation period project and capital expenditures, and have lower terminal valuation multiples, compared to the retailing business

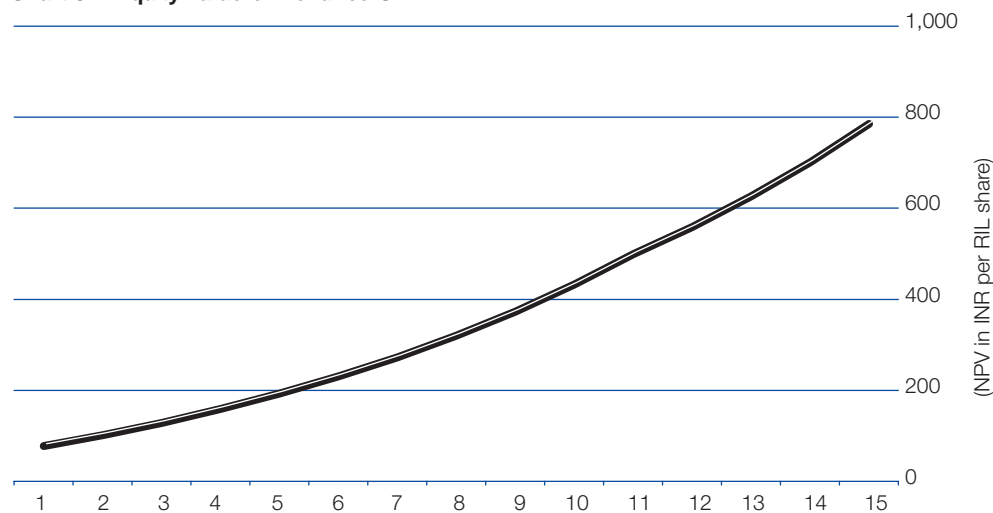
Due to lack of information on the investment, we do the valuation of the SEZ business using the return on capital, where we assume an 20% return on investments (returns = Net Income + Depreciation + Interest). We estimate that the NPV of SEZ business is INR 78 per share.

Table 19: Valuation of RIL SEZ business

| Assumptions | | | | | | | | | | | | | | | |
|--|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| Years of capex (years) | 10 | | | | | | | | | | | | | | |
| Cost of debt (%) | 8 | | | | | | | | | | | | | | |
| Equity financing (%) | 30 | | | | | | | | | | | | | | |
| Depreciation (% GFA) | 4 | | | | | | | | | | | | | | |
| CROCI® return (%) | 20 | | | | | | | | | | | | | | |
| TV P/E ratio | 10 | | | | | | | | | | | | | | |
| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| GFA (INR bn) | 40 | 80 | 120 | 160 | 200 | 240 | 280 | 320 | 360 | 400 | 408 | 416 | 424 | 433 | 442 |
| Capital expenditure (INR bn) | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 8 | 8 | 8 | 8 | 9 |
| Equity financing (INR bn) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 0 | 0 | 0 | 0 | 0 |
| PAT + Depreciation + Interest (INR bn) | 0 | 0 | 0 | 0 | 36 | 44 | 52 | 60 | 68 | 76 | 81 | 82 | 84 | 86 | 87 |
| Depreciation (INR bn) | 2 | 2 | 4 | 6 | 7 | 9 | 10 | 12 | 14 | 15 | 16 | 16 | 17 | 17 | 17 |
| Interest (INR bn) | 2 | 4 | 6 | 9 | 11 | 10 | 10 | 8 | 6 | 3 | (2) | (9) | (16) | (23) | (32) |
| PAT (INR bn) | (4) | (6) | (10) | (15) | 18 | 25 | 32 | 40 | 49 | 58 | 67 | 74 | 83 | 92 | 102 |

Source: Edelweiss research

Chart 37: Equity value of Reliance SEZ



Source: Edelweiss research

* Upsides on RIL from our base case SOP is INR 1,825 per share

We have looked at the possible upsides in RIL's valuations using inputs from recent news flows on possible gas finds and reserves. Our estimated upside value of RIL is INR 1,825 per share, 45% over CMP. We estimate that current stock price of INR 1,263 per share incorporates ~10% probability of all the potential upsides.

Table 20: SOP for RIL

| Details of the segment | Value (INR per share) | Full upsides |
|--|-----------------------|--------------|
| Exploration & production | 302 | 850 |
| PMT | 42 | 42 |
| KG-D6 (gas) | 184 | 377 |
| KG-D6 (oil) | 0 | 63 |
| NEC-25 | 43 | 95 |
| CBM | 33 | 97 |
| KG-DWN-2003/1 (KG-D4) | 0 | 110 |
| KG-III (oil) | 0 | 67 |
| R&M (@ EV/EBITDA = 6.0x) | 392 | 392 |
| Chemicals (@ EV/EBITDA = 5.5x) | 330 | 330 |
| Retailing | 80 | 80 |
| SEZ | 0 | 73 |
| Total investments (net of debt) | 99 | 99 |
| Total SOTP | 1,204 | 1,825 |

Source: Edelweiss research

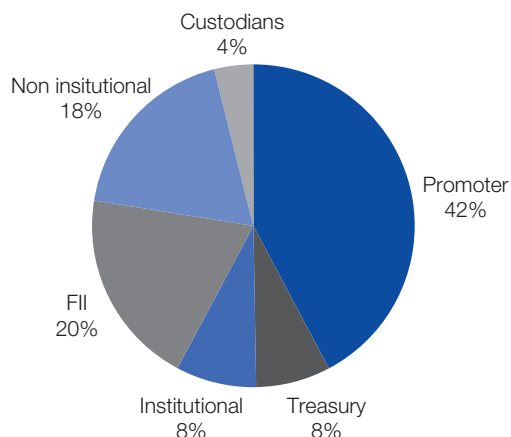
Company Background

✦ RIL- India's largest private sector enterprise

RIL is the largest private player in refining, petrochemical, and E&P in India. It is all set to emerge as an integrated O&G company, as it scales up its upstream business. RIL is also venturing into areas of consumer retailing and urban infrastructure (SEZ, building cities).

The promoter(s) of the company, Mukesh Ambani, holds a 42.33% stake in the company (see figure).

Chart 38: RIL shareholding



Source: BSE website

✦ Business segments

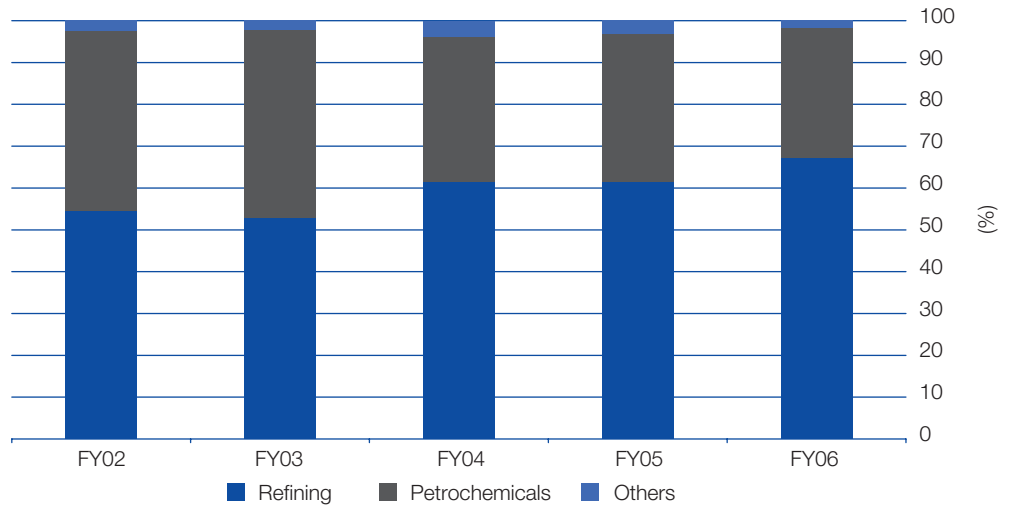
We can break up the company's operations into the following business segments:

- Exploration and production (E&P)
- Refining and marketing (R&M)
- Petrochemicals (including chemicals / aromatics)
- Retailing
- Urban infrastructure (SEZ).

Historically, RIL's refining and petrochemical segments have been contributing ~90% to its total revenues.

Historically refining and marketing and petrochemical contributed ~90% of the revenue

Chart 39: RIL segmental revenue



Source: Company

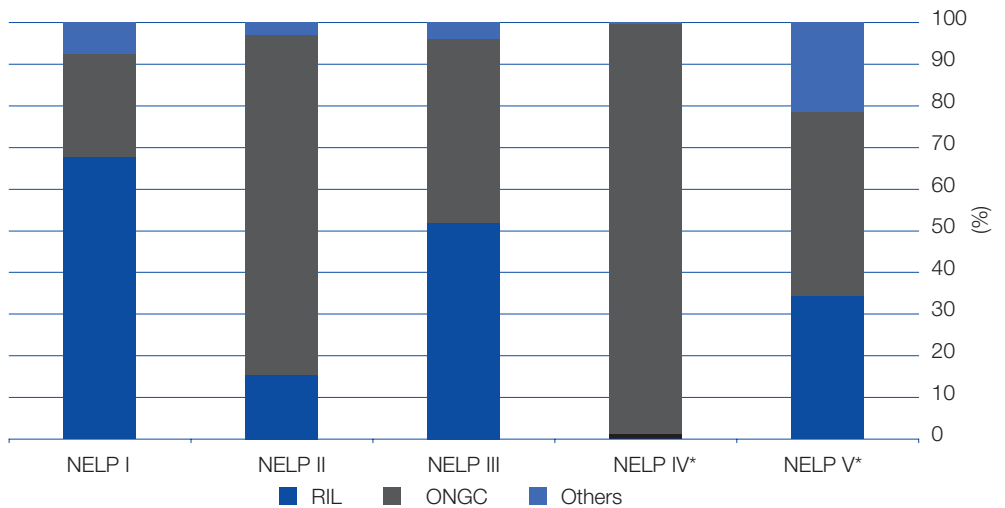
Revenue contribution is expected to change in the future

This is however set to change, as the company scales up its E&P and retailing businesses. Once the KG basin block starts producing in June 2008, the E&P division will start contributing significantly to the company's EBITDA.

✦ Exploration and production (upstream)

Currently, RIL has 39 exploration blocks and five CBM blocks with total exploration acreage of ~ 381,000 sq kms. RIL expanded its E&P business by bidding aggressively for the O&G blocks auctioned by Gol.

Chart 40: % of NELP blocks offered



Source: DGH, Gol

RIL has 39 exploration blocks , 5 CBM blocks

Exploration of the blocks resulted in some large discoveries, which put RIL into the global map of large upstream companies. (refer Annexure XII for details of RIL's discoveries)

RIL has a 90% participating interest in India's largest gas find – KG basin (D6 block) along with a Canadian company Niko Resources (10% interest). Two discovered fields (Dhirubhai 1 & 3) have 35.4 tcf of O&G in place. Another block, NEC-25, was one of the prominent discoveries made by RIL in 2005 and has 2P 3.7 tcf gas. RIL has a 90% interest in the NEC-25 block.

RIL has a 30% participating interest in the producing blocks of Panna-Mukta and Tapti in Bombay High offshore block. RIL also has a stake in two overseas blocks in Oman (exploration block) and Yemen (production block).

Refining and Marketing

RIL is the largest private sector refining company in India. The company is currently venturing into auto fuel retailing segment.

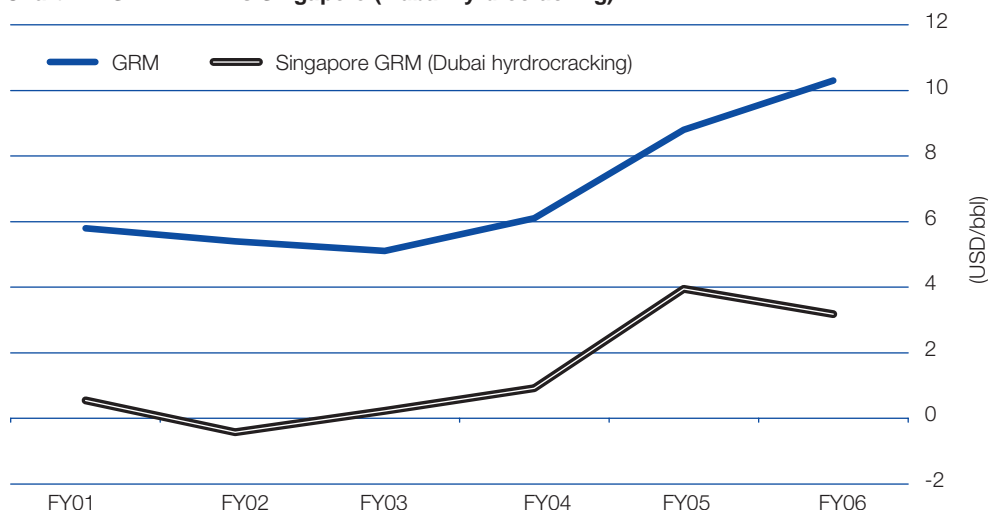
Refining

The current refining capacity of RIL’s Jamnagar refinery is 0.66 mbpd. RIL is almost doubling this capacity, to process 1.24 mbpd, which will make it the largest single location petroleum refinery in the world. The complexity of the old refinery at Jamnagar is 10.3, and the new 29.0 mmtpa refinery will have a complexity of 14.0.

Largest private sector refinery having a high Nelson complexity of 10.3

Over the years RIL’s refining margins have been higher than the Singapore (Dubai hydrocracking) refining margins, as indicated in the graph below.

Chart 41: GRM - RIL vs Singapore (Dubai hydrocracking)



Source: IEA, Company

Marketing

RIL ventured into the fuel retail space recently (November 2006), the company has 1,272 retail outlets (as on Q1FY06 end) and is expected to expand it to about 5,849 outlets (as per Gol’s approval). RIL will market its own products through its outlets across the country.

Petrochemicals

RIL is world’s largest polyester fibre and yarn producer, and among the top petrochemical producers in the world. Its existing petrochemicals complex is the largest in India (capacity of 33mmtpa).

Tabel 21: Chemicals capacity for the year 2006

| Cracking products | Capacity (TMT) | Polymers | Capacity (TMT) |
|-------------------|----------------|-------------------------|----------------|
| Ethylene | 750 | HDPE | 450 |
| Propylene | 1,150 | PP- Polypropelene | 1,150 |
| Butadiene | 140 | PVC- Polyvinyl chloride | 325 |

| Petrochemicals / Chemicals | Capacity (TMT) | Polyster / Polyster Intermediary | Capacity (TMT) |
|----------------------------|----------------|-------------------------------------|----------------|
| Benzene | 675 | PX- Paraxylene | 1,856 |
| Toulene | 197 | PTA-Purified terephthalic acid | 1,350 |
| Xylene | 165 | MEG- Mono ethylene glycol | 475 |
| Ortho xylene | 420 | PFY- Polyester filament yarn | 524 |
| Ethylene oxide | 66 | PSF- Polyester staple fibre | 580 |
| LAB- Linear alkyl benzene | 115 | PET- Polyethylene terephthalate | 290 |

Source: Company, Edelweiss research

Aromatics

RIL features among the top 20 aromatics producers in the world. It produces and markets Benzene, Toluene, Mixed- Xylene, and Ortho-Xylene.

Textile

RIL's textile complex is one of India's largest textile complexes and produces about 25 mn metres of fabric annually.

Financial Statements

| Income statement | | | | | (INR mn) |
|--|---------|---------|---------|---------|----------|
| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
| Net revenues | 660,513 | 812,113 | 972,072 | 907,890 | 856,778 |
| Cost of goods sold | 464,562 | 562,111 | 708,528 | 630,128 | 561,241 |
| Gross profit | 195,951 | 250,002 | 263,544 | 277,762 | 295,538 |
| Employee expenses | 8,464 | 9,785 | 10,959 | 12,274 | 13,747 |
| Other expenses | 59,377 | 97,227 | 81,523 | 88,944 | 102,997 |
| Operating expenses | 67,841 | 107,011 | 92,482 | 101,218 | 116,743 |
| EBIDTA | 128,110 | 142,991 | 171,062 | 176,543 | 178,795 |
| Depreciation & amortisation | 37,235 | 34,009 | 39,351 | 40,043 | 45,429 |
| EBIT | 90,875 | 108,982 | 131,711 | 136,500 | 133,365 |
| Interest | 14,687 | 8,770 | 14,509 | 16,050 | 18,065 |
| Other Income | 14,498 | 6,829 | 2,177 | 1,483 | 1,599 |
| Extraordinary items | 0 | 0 | 0 | 0 | 0 |
| Profit before tax (PBT) | 90,687 | 107,041 | 119,379 | 121,933 | 116,899 |
| Current taxes | 7,050 | 9,000 | 14,488 | 14,948 | 16,380 |
| Deferred taxes | 7,920 | 7,040 | 7,000 | 7,000 | 7,000 |
| Taxes | 14,970 | 16,347 | 21,488 | 21,948 | 23,380 |
| Profit after tax (PAT) | 75,717 | 90,693 | 97,891 | 99,985 | 93,519 |
| Equity shares outstanding (mn) | 1,394 | 1,394 | 1,394 | 1,394 | 1,394 |
| Equity shares (excluding treasury shares) (mn) | 1,220 | 1,220 | 1,220 | 1,220 | 1,220 |
| EPS (INR) | 54.3 | 65.1 | 70.2 | 71.8 | 67.1 |
| EPS - excluding treasury shares (INR) | 62.1 | 74.3 | 80.2 | 82.0 | 76.7 |
| Dividend per share (INR) | 7.5 | 10.0 | 12.0 | 12.5 | 12.5 |
| Dividend payout (%) | 13.8 | 15.4 | 17.1 | 17.4 | 18.6 |

Common size metrics as % of net revenues

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|-----------------------------|------|------|-------|-------|-------|
| Cost of goods sold | 70.3 | 69.2 | 72.9 | 69.4 | 65.5 |
| Operating expenses | 10.3 | 13.2 | 9.5 | 11.1 | 13.6 |
| EBITDA | 19.4 | 17.6 | 17.6 | 19.4 | 20.9 |
| Depreciation & amortisation | 5.6 | 4.2 | 4.0 | 4.4 | 5.3 |
| Interest | 2.2 | 1.1 | 1.5 | 1.8 | 2.1 |
| Net profit | 11.2 | 11.0 | 9.9 | 10.8 | 10.7 |

Growth metrics (%)

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|---------------|------|------|-------|-------|-------|
| Net revenues | 27.5 | 23.0 | 19.7 | (6.6) | (5.6) |
| EBITDA | 30.1 | 11.6 | 19.6 | 3.2 | 1.3 |
| PBT | 43.9 | 18.0 | 11.5 | 2.1 | (4.1) |
| Net profit | 46.7 | 19.8 | 7.9 | 2.1 | (6.5) |
| EPS | 47.0 | 19.8 | 7.9 | 2.1 | (6.5) |

| Balance sheet | | | | | (INR mn) |
|--------------------------------------|----------------|----------------|------------------|------------------|------------------|
| As on 31st March | FY05 | FY06 | FY07E | FY08E | FY09E |
| Equity share capital | 13,931 | 13,932 | 13,932 | 13,932 | 13,932 |
| Reserves and surplus | 390,102 | 484,111 | 562,934 | 643,056 | 716,713 |
| Shareholder's Equity (A) | 404,033 | 498,043 | 576,866 | 656,988 | 730,644 |
| Secured loans | 79,729 | 76,649 | 80,000 | 80,000 | 80,000 |
| Unsecured loans | 108,117 | 142,007 | 100,918 | 91,200 | 91,361 |
| Total debt (B) | 187,846 | 218,656 | 180,918 | 171,200 | 171,361 |
| Net deferred tax liability (C) | 42,668 | 49,708 | 56,708 | 63,708 | 70,708 |
| Capital employed (A+B+C) | 634,547 | 766,407 | 814,492 | 891,896 | 972,714 |
| Accounts Payable | 136,597 | 125,635 | 194,117 | 172,638 | 153,765 |
| Provisions | 34,718 | 38,910 | 58,235 | 51,791 | 46,129 |
| Current liabilities & provisions (D) | 171,315 | 164,545 | 252,352 | 224,429 | 199,894 |
| Total liabilities (A+B+C+D) | 805,863 | 930,952 | 1,066,845 | 1,116,325 | 1,172,608 |
| Gross fixed assets | 551,258 | 849,701 | 968,436 | 966,268 | 960,327 |
| Accumulated depreciation | 248,728 | 292,534 | 331,885 | 371,928 | 417,358 |
| Net fixed assets | 302,530 | 557,168 | 636,551 | 594,340 | 542,969 |
| Capital WIP | 48,293 | 69,578 | 50,000 | 150,000 | 250,000 |
| Total fixed assets (A) | 350,823 | 626,745 | 686,551 | 744,340 | 792,969 |
| Investments (B) | 170,515 | 58,462 | 82,983 | 96,833 | 121,813 |
| Inventories | 74,129 | 101,198 | 120,700 | 110,203 | 102,162 |
| Accounts receivables | 39,278 | 41,636 | 49,269 | 46,016 | 43,426 |
| Cash and cash equivalents | 36,088 | 21,462 | 29,162 | 27,237 | 25,703 |
| Loans and advances | 114,154 | 81,198 | 97,207 | 90,789 | 85,678 |
| Other Current Assets | 20,877 | 251 | 972 | 908 | 857 |
| Current assets (C) | 284,525 | 245,745 | 297,311 | 275,153 | 257,826 |
| Total assets (A+B+C+D) | 805,863 | 930,952 | 1,066,845 | 1,116,325 | 1,172,608 |

| Cash flow statement | | | | | (INR mn) |
|--|---------------|-----------------|--------------|----------------|----------------|
| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
| Operating cash flow before | | | | | |
| working capital changes | 114,603 | 79,068 | 144,242 | 147,029 | 145,948 |
| (Incr)/Decr in working capital | 18,181 | 17,384 | 43,942 | (7,691) | (8,741) |
| Cash flow from operations (A) | 132,784 | 96,452 | 188,184 | 139,338 | 137,207 |
| Net purchase of fixed assets | (30,977) | (94,791) | (99,156) | (97,832) | (94,059) |
| Net purchase of investments | (30,801) | (31,210) | (24,521) | (13,850) | (24,980) |
| Net cash flow from investing (B) | (61,777) | (126,001) | (123,678) | (111,682) | (119,039) |
| Net incr./decr. in equity capital | (3,602) | 2 | - | - | - |
| Net incr./decr. in debt | (21,601) | 30,810 | (37,738) | (9,719) | 161 |
| Dividends paid | (11,959) | (15,890) | (19,068) | (19,863) | (19,863) |
| Cash flow from financing (C) | (37,162) | 14,923 | (56,806) | (29,581) | (19,701) |
| Net incr./decr. in cash (A+B+C) | 33,846 | (14,626) | 7,701 | (1,925) | (1,533) |

Valuation parameters

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|-------------------------------|-------|-------|-------|-------|-------|
| EPS (INR) | 54.3 | 65.1 | 70.2 | 71.8 | 67.1 |
| EPS Y-o-Y growth (%) | 47.0 | 19.8 | 7.9 | 2.1 | -6.5 |
| CEPS (INR) | 86.7 | 94.5 | 103.5 | 105.5 | 104.7 |
| P/E (x) | 23.3 | 19.4 | 18.0 | 17.6 | 18.8 |
| P/E (x) - w/o treasury shares | 20.4 | 17.0 | 15.7 | 15.4 | 16.5 |
| Book value per share (INR) | 289.9 | 357.4 | 414.0 | 471.5 | 524.3 |
| P/BV (x) | 4.4 | 3.5 | 3.1 | 2.7 | 2.4 |
| EV/Sales (x) | 2.9 | 2.4 | 2.0 | 2.1 | 2.2 |
| EV/EBITDA (x) | 14.9 | 13.7 | 11.2 | 10.8 | 10.7 |
| Dividend yield (%) | 0.6 | 0.8 | 0.9 | 1.0 | 1.0 |

Liquidity ratios

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|------------------------------|--------|------|--------|--------|--------|
| Current ratio | 2.1 | 2.0 | 1.5 | 1.6 | 1.7 |
| Quick ratio | 1.5 | 1.2 | 0.9 | 1.0 | 1.0 |
| Cash ratio | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| Receivable turnover (x) | 16.8 | 19.5 | 19.7 | 19.7 | 19.7 |
| Inventory turnover (x) | 6.3 | 5.6 | 5.9 | 5.7 | 5.5 |
| Payables turnover (x) | 3.4 | 4.5 | 3.7 | 3.7 | 3.7 |
| Receivables (days) | 21.7 | 18.7 | 18.5 | 18.5 | 18.5 |
| Inventory (days) | 58.2 | 65.7 | 62.2 | 63.8 | 66.4 |
| Payables (days) | 107.3 | 81.6 | 100.0 | 100.0 | 100.0 |
| Cash conversion cycle (days) | (27.4) | 2.8 | (19.3) | (17.7) | (15.1) |

Operating ratios

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|----------------------|------|------|-------|-------|-------|
| Total asset turnover | 0.8 | 0.9 | 0.9 | 0.8 | 0.7 |
| Fixed asset turnover | 2.2 | 1.5 | 1.5 | 1.5 | 1.6 |
| Equity turnover | 1.6 | 1.6 | 1.7 | 1.4 | 1.2 |

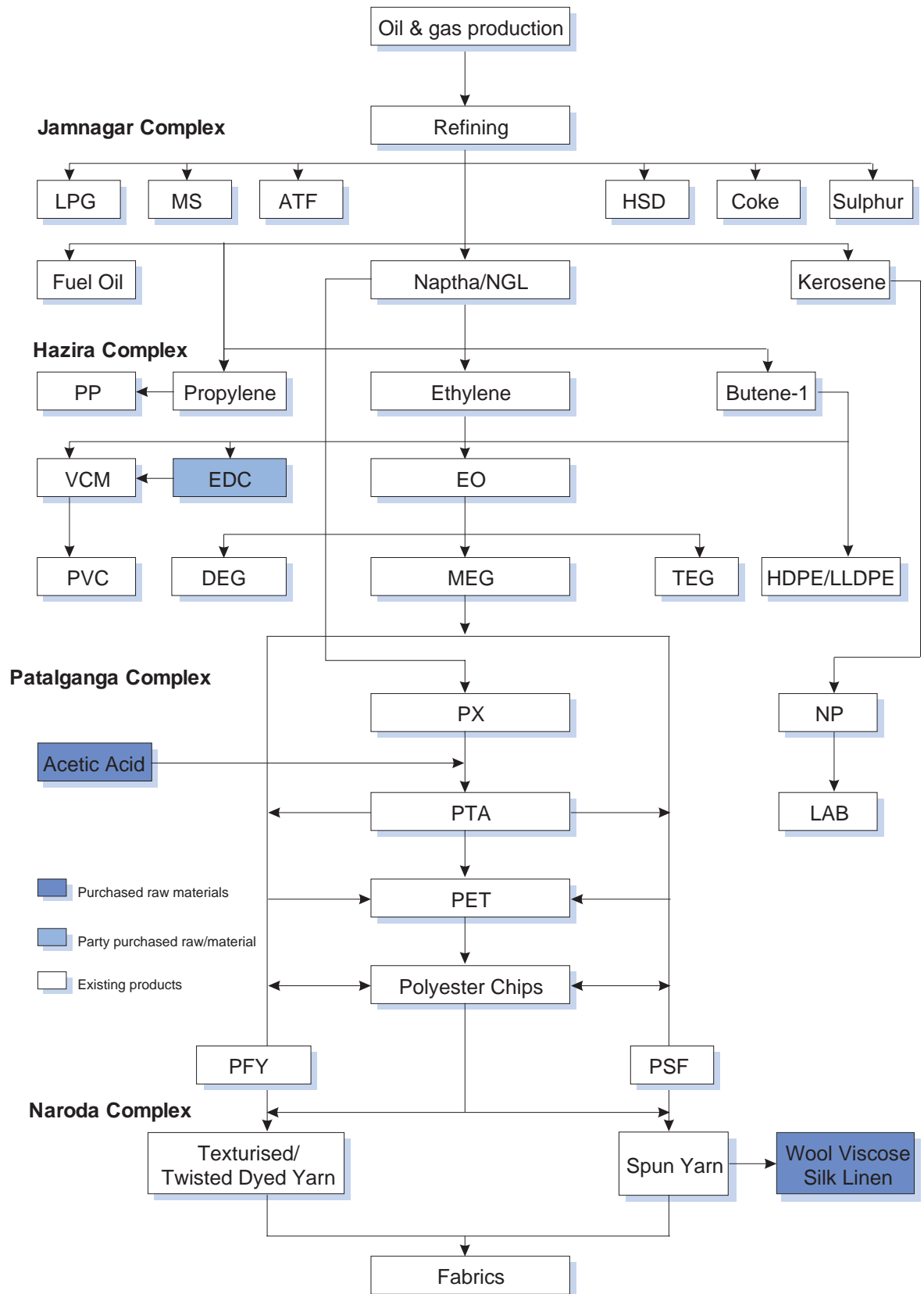
Profitability ratios

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|---------------------|------|------|-------|-------|-------|
| Gross profit margin | 29.7 | 30.8 | 27.1 | 30.6 | 34.5 |
| EBITDA margin | 19.4 | 17.6 | 17.6 | 19.4 | 20.9 |
| ROCE | 16.4 | 16.2 | 15.7 | 14.8 | 13.3 |
| ROE | 20.2 | 20.1 | 18.2 | 16.2 | 13.5 |
| ROA | 13.2 | 13.0 | 12.4 | 11.6 | 10.8 |

Financial ratios

| Year to March | FY05 | FY06 | FY07E | FY08E | FY09E |
|---------------------------------------|------|------|-------|-------|-------|
| Debt-equity (x) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Long term debt / Capital employed (%) | 29.6 | 28.5 | 22.2 | 19.2 | 17.6 |
| Total debt / Capital employed (%) | 63.3 | 56.5 | 60.2 | 51.5 | 45.4 |
| Interest coverage (x) | 3.4 | 4.1 | 4.0 | 4.0 | 3.6 |

Annexure I: Product flow chart



Source: Company

Annexure II: RIL's exploration blocks

| Round | Type of Block | NELP round | Basin/ Coal field | Block name | Consortium (participating interest) | Date of signing contract | Area (sq.km.) |
|--|-----------------------|------------|----------------------|-----------------------|---|--------------------------------|------------------|
| Development of small and medium-sized discovered fields | | | | | | | |
| Pre-NELP | Mumbai offshore | I | | Mid and south Tapti | BGEPIL, RIL & ONGC | 12/22/1994 | 1,471 |
| Pre-NELP | Mumbai offshore | I | | Panna | BGEPIL, RIL & ONGC | 12/22/1994 | 430 |
| Pre-NELP | Mumbai offshore | I | | Mukta | BGEPIL, RIL & ONGC | 12/22/1994 | 777 |
| Petroleum exploration licenses | | | | | | | |
| Pre-NELP | Onland | VIII | Krishna-Godavari | KG-ON/1 | RIL (40) & TIOL (60) | 7/16/1998 | 4,180 |
| Pre-NELP | Offshore | V | Guajrat-Kutch | GK-OS/5 | RIL (40), TIOL (50) & Okland (10) | 7/16/1998 | 3,750 |
| Pre-NELP | Offshore | VII | Saurashtra | SR-OS-94/1 | RIL (100) | 4/12/2000 | 6,860 |
| Pre-NELP | Offshore | JV | Guajrat-Kutch | GK-OSJ-1 | RIL (50), TIOL (25) & ONGC (25) | 7/16/1998 | 951 |
| Pre-NELP | Offshore | JV | Guajrat-Kutch | GK-OSJ-3 | RIL (60), ONGC (25) & OIL (15) | 9/6/2001 | 5,725 |
| NELP I | Offshore - Deep water | I | Krishna-Godavari | KG-DWN-98/1 | RIL (100) | 4/12/2000 | 10,810 |
| NELP I | Offshore - Deep water | I | Krishna-Godavari | KG-DWN-98/3 | RIL (90) & NIKO (10) | 4/12/2000 | 7,645 |
| NELP I | Offshore - Deep water | I | Mahanadi-NEC | MN-DWN-98/2 | RIL (100) | 4/12/2000 | 7,195 |
| NELP I | Offshore - Shallow | I | Guajrat-Kutch | GK-OSN-97/1 | RIL (100) | 4/12/2000 | 1,465 |
| NELP I | Offshore - Shallow | I | Saurashtra | SR-OSN-97/1 | RIL (100) | 4/12/2000 | 5,040 |
| NELP I | Offshore - Shallow | I | Mumbai | MB-OSN-97/2 | RIL (90) & NIKO (10) | 4/12/2000 | 5,270 |
| NELP I | Offshore - Shallow | I | Mumbai | MB-OSN-97/3 | RIL (100) | 4/12/2000 | 5,740 |
| NELP I | Offshore - Shallow | I | Kerala-Konkan | KK-OSN-97/2 | RIL (100) | 4/12/2000 | 19,450 |
| NELP I | Offshore - Shallow | I | Krishna-Godavari | KG-OSN-97/4 | RIL (100) | 4/12/2000 | 4,020 |
| NELP I | Offshore - Shallow | I | Krishna-Godavari | KG-OSN-97/3 | RIL (100) | 4/12/2000 | 2,460 |
| NELP I | Offshore - Shallow | I | Krishna-Godavari | KG-OSN-97/2 | RIL (100) | 4/12/2000 | 4,790 |
| NELP I | Offshore - Shallow | I | Mahanadi-NEC | NEC-OSN-97/2 | RIL (90) & NIKO (10) | 4/12/2000 | 10,755 |
| NELP II | Offshore - Deep Water | II | Kerala-Konkan | KK-DWN-2000/1 | RIL (100) | 7/17/2001 | 18,113 |
| NELP II | Offshore - Deep Water | II | Kerala-Konkan | KK-DWN-2000/3 | RIL (100) | 7/17/2001 | 14,889 |
| NELP II | Offshore - Shallow | II | Gujarat -Saurashtra | GS-OSN-2000/1 | RIL (90) & HEPI (10) | 7/17/2001 | 8,841 |
| NELP II | Onland | II | Assam-Arakan | AS-ONN-2000/1 | RIL (90) & HEPI (10) | 7/17/2001 | 6,215 |
| NELP III | Offshore - Deep water | III | Kerala-Konkan | KK-DWN-2001/1 | RIL (90) & HEPI (10) | 2/4/2003 | 27,315 |
| NELP III | Offshore - Deep water | III | Kerala-Konkan | KK-DWN-2001/2 | RIL (90) & HEPI (10) | 2/4/2003 | 31,515 |
| NELP III | Offshore - Deep water | III | Cauvery | CY-DWN-2001/2 | RIL (90) & HEPI (10) | 2/4/2003 | 14,325 |
| NELP III | Offshore - Deep water | III | Cauvery-Palar | CY-PR-DWN-2001/3 | RIL (90) & HEPI (10) | 2/4/2003 | 8,600 |
| NELP III | Offshore - Deep water | III | Cauvery-Palar | CY-PR-DWN-2001/4 | RIL (90) & HEPI (10) | 2/4/2003 | 10,590 |
| NELP III | Offshore - Deep water | III | Palar | PR-DWN-2001/1 | RIL (90) & HEPI (10) | 2/4/2003 | 8,255 |
| NELP III | Offshore - Deep water | III | Krishna-Godavari | KG-DWN-2001/1 | RIL (90) & HEPI (10) | 2/4/2003 | 11,605 |
| NELP III | Offshore - Shallow | III | Krishna-Godavari | KG-OSN-2001/1 | RIL (90) & HEPI (10) | 2/4/2003 | 1,100 |
| NELP III | Offshore - Shallow | III | Krishna-Godavari | KG-OSN-2001/2 | RIL (90) & HEPI (10) | 2/4/2003 | 210 |
| NELP IV | Offshore - Deep water | IV | Mahanadi- NEC | NEC-DWN-2002/1 | RIL (90) & HEPI (10) | 2/6/2004 | 25,565 |
| NELP V | Offshore - Deep water | V | Kerala-Konkan | KK-DWN-2003/1 | RIL (100) | 9/23/2005 | 18,245 |
| NELP V | Offshore - Deep water | V | Kerala-Konkan | KK-DWN-2003/2 | RIL (100) | 9/23/2005 | 12,285 |
| NELP V | Offshore - Deep water | V | Krishna-Godavari | KG-DWN-2003/1 | RIL (90) & HEPI (10) | 9/23/2005 | 33,288 |
| NELP V | Offshore - Deep water | V | Mahanadi - NEC | MN-DWN-2003/1 | RIL (85) & NR(V)L (15) | 9/23/2005 | 17,050 |
| NELP V | Onland | V | Cambay | CB-ONN-2003/1 | RIL (100) | 9/23/2005 | 635 |
| CBM Blocks | | | | | | | |
| CBM I | | I | Sohagpur East / MP | SP(E)-CBM-2001/1 | RIL (100) | 7/26/2004 | 495 |
| CBM I | | I | Sohagpur East / MP | SP(W)-CBM-2001/1 | RIL (100) | 7/26/2004 | 500 |
| CBM II | | II | Sonhat/Chatisgar | SH(north)-CBM-2003/II | RIL (100) | 2/6/2004 | 825 |
| CBM II | | II | Barmer / Rajasthan | BS(1)-CBM-2003/II | RIL (100) | 2/6/2004 | 1,045 |
| CBM II | | II | Barmer / Rajasthan | BS(2)-CBM-2003/II | RIL (100) | 2/6/2004 | 1,020 |

Source: Directorate General of Hydrocarbons (DGH)

Annexure III: Natural gas demand to persist

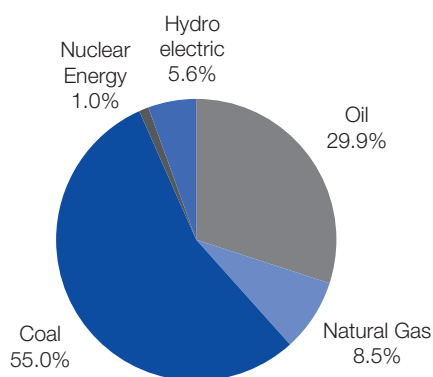
In India, energy consumption from natural gas is relatively lower compared with the average global consumption due to non-availability of natural gas in the country. The natural gas availability is however likely to improve going forward, following discoveries at the KG basin, Dahej, and Hazira blocks. Higher supply of the fuel will subsequently lead to an increase in its consumption.

The demand of natural gas is likely to sustain because of the energy requirement of the new power projects and increased requirement by the fertilizer sector, as it switches its feedstock from naphtha to natural gas.

Indian energy from natural gas has lagged the global averages

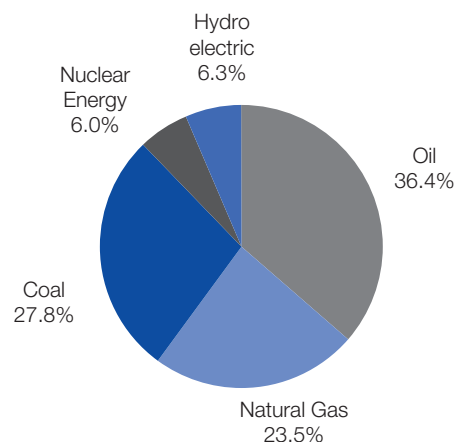
Worldwide, we see that dependence on natural gas for energy is as high as 24%. In India, natural gas contributes only 8.5% to the total energy consumption because of the inadequacy of the fuel. Coal is a major driver of energy in India, contributing nearly 55% of the total energy, while oil contributes ~30%.

Chart 42: Natural gas consumption as a % of the total India energy consumption



Source: BP statistics

Chart 43: Natural gas consumption as a % of total world consumption



Source: BP statistics

Consumption of natural gas in India lower as compared globally

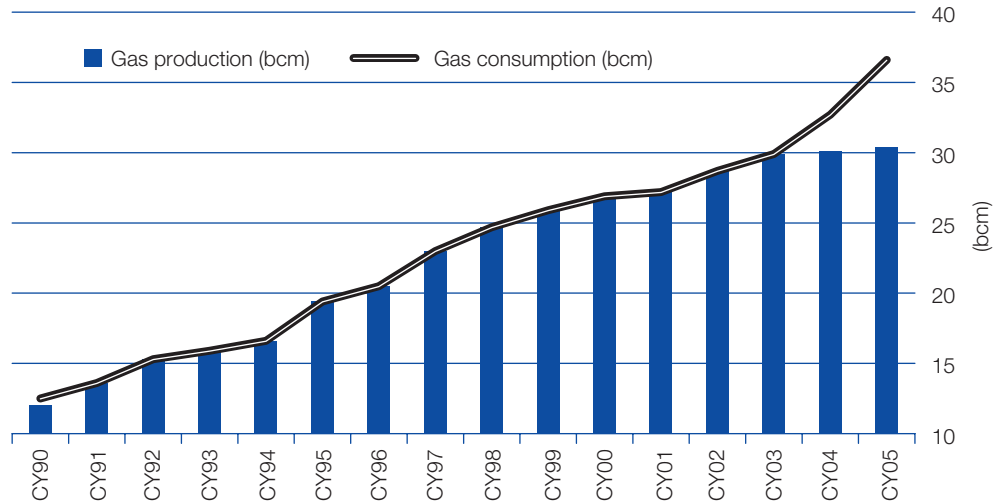
Supply issues have led to lower usage of natural gas

India is deficit in natural gas. The supply of natural gas in the country has been less due to:

- Lack of availability of natural gas
- Lack of advance technology required for transporting natural gas

Inadequate availability of natural gas due to low production and high consumption growth

As per the latest statistics of GoI, the total gas reserves in India is 1101 bcm, while the amount of gas produced in 2005 was 30.4 bcm. However, total gas available for consumption has been at ~ 37 bcm.

Chart 44: Gas production vs consumption

Source: BP statistics

There was a flat growth in domestic production of natural gas, while consumption grew by 12% for the year. The shortfall in the Indian gas market has forced many industries and power generators to resort to expensive alternative fuels. However, with the intervention of Gol and new capacity additions, growth in natural gas supply is evident.

* **KG basin, Dahej major drivers of the increased supply in 2011**

According to our estimates, supply of natural gas would be 244.5 mmscmd by 2011; companies such as RIL, GSPC, and Petronet LNG will contribute majorly to the increased supply.

Table 22: Natural gas supplies (MMSCMD)

| | Details | FY06 | FY11 |
|-----------------------------|-------------------------|-------------|--------------|
| Current gas supplies | Total | 73.9 | 71.0 |
| | KG-DWN-90/2 | 0.0 | 3.0 |
| | Ratna | 0.0 | 0.3 |
| | Reliance (KG basin) | 0.0 | 80.0 |
| | Reliance (NEC-25) | 0.0 | 15.0 |
| | GSPC (KG basin) | 0.0 | 5.0 |
| New gas supplies | Total | 0.0 | 103.3 |
| | Petronet LNG, Dahej | 19 | 37 |
| | Petronet LNG, Kochi | 0 | 9 |
| | Ratnagiri Power, Dabhol | 0 | 9 |
| | Shell LNG, Hazira | 0 | 9 |
| LNG supplies | | 19.2 | 65.2 |
| CBM gas | | 0.0 | 5.0 |
| Total | | 93.1 | 244.5 |

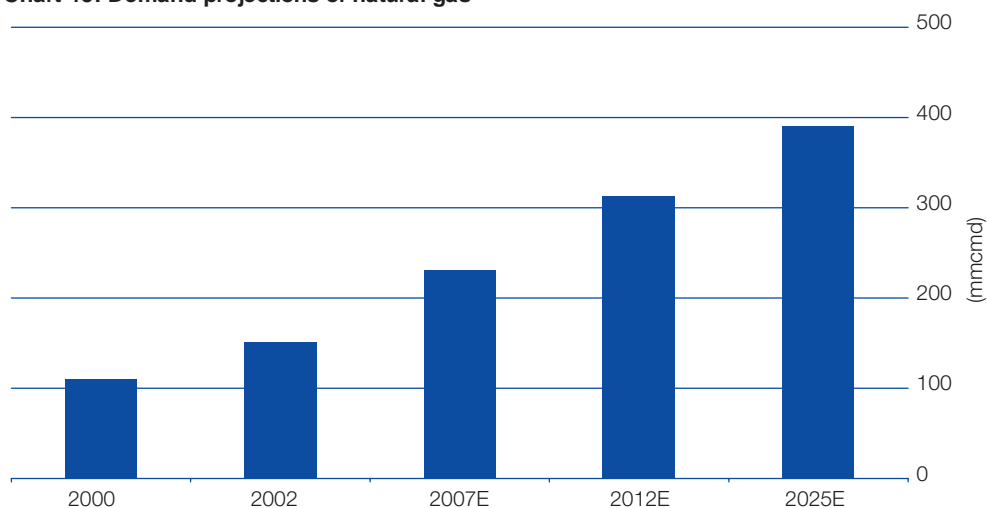
Source: Edelweiss research

* **Hydrocarbon vision 2025 expects a 313 mmscmd demand by 2012**

The hydrocarbon group has projected an extensive rise in hydrocarbon demand; it expects an increase of nearly 35% in demand from 2007 to 2012.

KG basin, NEC block, Dahej are going to be major contributors of the increase in natural gas supply

Chart 45: Demand projections of natural gas



Source: Hydro carbon vision 2025

✚ Increasing requirement in power and fertiliser sectors, leading to a rise in demand

Demand for natural gas is expected to grow

Natural gas is mainly utilised by the power sector as a fuel, and by fertilizer and petrochemicals sectors as a feedstock. For 2006, the power and fertilizer sectors accounted for almost 35% and 27%, respectively, of the total natural gas consumption.

Going forward, the fertilizer and industrial sectors will influence the increase in natural gas demand; however, the main increment would be from the power sector. Further, new capacity additions in the existing plants, together with set up of new power projects like the Reliance energy project at Nagothane and the NTPC projects at Kavas and Gandhar, are likely to substantially impact the demand for natural gas.

Table 23: Major power projects expected

| Company | Name | Capacity (MW) | Natural gas |
|-------------------------------|---|---------------|--------------|
| NTPC | Kawas CCGT II | 1,300 | 5.2 |
| NTPC | Gandhar CCGT II | 1,300 | 5.2 |
| NTPC | Kayamkulam CCPP Module-1,2,3 | 1,950 | 7.8 |
| ONGC | Tripura Gas GT+ ST | 750 | 3.0 |
| PPGCL | Pragati Ph-II | 330 | 1.3 |
| PSEB | Doraha CCGT | 1,000 | 4.0 |
| RRVUNL | Dholpur CCHPP Ph-II | 330 | 1.3 |
| RRVUNL | Keshoraipatnam | 330 | 1.3 |
| GEB | Utran CCPP GT+ ST | 350 | 1.4 |
| GSECL | Hazira CCPP extn. | 200 | 0.8 |
| MAHAGENCO | Uran CCPP | 1,040 | 4.2 |
| MSEB | Talegaon CCPP | 1,400 | 5.6 |
| MPSEB | Chanderi CCGT JV | 1,000 | 4.0 |
| KPCL | Bidadi CCPP GT+ST | 1,400 | 5.6 |
| KPCL | Bidadi Exp | 700 | 2.8 |
| Assam Government | Namrup GT Ext | 100 | 0.4 |
| Private sector | | | |
| State | Bawana CCGT GT+ST | 1,000 | 4.0 |
| Aban Loyd Chiles Offshore Ltd | Faridabad II | 1,050 | 4.2 |
| NDPL | Gas based CCPP at Jhajjar | 1,000 | 4.0 |
| Reliance energy | Dadri Ph-I | 3,740 | 15.0 |
| Reliance energy | Dadri Ph-II | 3,740 | 15.0 |
| Torrent | Sugen (Akhakhol) Gas based TPP (Surat Torrent)Block II & III | 752 | 3.0 |
| Essar power | Hazira extn | 1,460 | 5.8 |
| GPEC | Paguthan | 1,050 | 4.2 |
| State | Gas Plant Dadar & Nagar & Haveli, GT+ ST | 1,000 | 4.0 |
| Reliance Energy | Nagothane | 4,050 | 16.2 |
| GVK | Gautami CCGT GT+ST | 134 | 0.5 |
| Spectrum Power | Godavari CCPP Ph-II GT+ST | 359 | 1.4 |
| GVK Power | Jegrupadu Extn II | 220 | 0.9 |
| VPGL | Vemagiri CCPP Ph—II GT+ST | 370 | 1.5 |
| KPPL | Kannur CCGT GT+ST | 513 | 2.1 |
| Total | | 33,918 | 135.7 |

Source: CEA

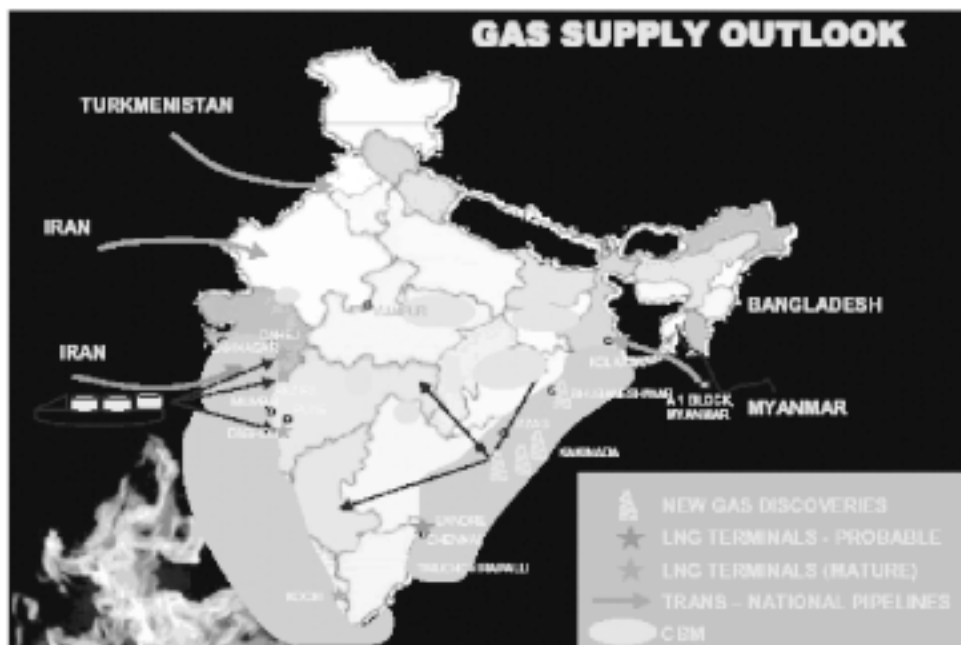
Although we have estimated an incremental demand of 135 mmscmd, we do not expect all of it to come through, as some of these power plants may not even become functional.

Domestic demand in line with incremental supply

In India, the domestic demand for gas is expected to exceed the supplies, despite a hefty increase in supply from private and joint venture (JV)-owned fields. The incremental increase in supply is expected to be ~150 mmscmd.

We are still expecting demand to be in line with the increasing supplies. The incremental demand from fertilizers is expected to be around 15-20 mmscmd, ~ 25 mmscmd from industrial sector and city gas distribution, and 110 mmscmd from the power generation sector after taking into consideration that some of the power generation plants may not see daylight.

Fig. 10: India map



Source: Methanetomarkets.org

Annexure IV: RIL CBM blocks

| Round | Basin / Coal field | Block name | Contract date | Area (sq. km.) |
|----------------------------------|--------------------------------|-------------------|---------------|----------------|
| CBM Blocks (CBM round I) | | | | |
| CBM I | SOHAGPUR EAST / MADHYA PRADESH | SP(E)-CBM-2001/1 | Jul-2004 | 495.0 |
| CBM I | SOHAGPUR WEST / MADHYA PRADESH | SP(W)-CBM-2001/1 | Jul-2004 | 500.0 |
| CBM Blocks (CBM round II) | | | | |
| CBM II | SONHAT / CHATISGARH & MP | SH(N)-CBM-2003/II | Feb-2004 | 825.0 |
| CBM II | BARMER / RAJASTHAN | BS(1)-CBM-2003/II | Feb-2004 | 1,045.0 |
| CBM II | BARMER / RAJASTHAN | BS(2)-CBM-2003/II | Feb-2004 | 1,020.0 |

Source: Directorate General of Hydrocarbons (DGH)

* RIL hold 100% interest in all the blocks

RIL CBM blocks

| Coal field | DGH estimates of reserves (tcf) | DGH estimates of reserves (bcm) |
|---------------|---------------------------------|---------------------------------|
| Sohagpur East | 1.7 | 49.0 |
| Sohagpur West | 1.3 | 36.8 |
| Sonhat | 1.2 | 33.9 |
| Barmer (1) | 3.4 | 95.1 |
| Barmer (2) | 3.1 | 87.7 |
| Total | 10.7 | 302.5 |

Source: Gol

Annexure V: World Refinery Additions and Expansions**Planned new refineries (primary distillation capacity)**

| Region | Country | Company | Capacity | Probable completion (kbpd) |
|----------------------------------|------------------------|-------------------------------|----------|----------------------------|
| Europe and Eurasia | | | | |
| Russia | Nizhnekamsk** | Tatneft | 140 | 2008 |
| Africa | | | | |
| Algeria | Adrar | Sonatrach / CNPC | 120 | 2006 |
| Algeria | Tiaret | Sonatrach / Foreign partners | 300 | 2011 |
| Angola | Lobito | Sonangoi / Sinopec | 240 | 2009-10 |
| Egypt | Ain el-Sukhna | Private sector | 100 | Planned* |
| Egypt | Kafr el- Sheikh | Private sector | 350 | Planned* |
| Nigeria | South | ONGC / Mittal | 200 | Planned* |
| Sudan | Port Sudan | State / Petronas | 100 | 2009 |
| Tunisia | La Skhira | State / foreign partner | 120 | 2011 |
| Middle East | | | | |
| Kuwait | Al-Zour | KPC | 615 | 2010 |
| Lebanon | Tripoli / Zahraanit*** | Qatar Petroleum | 150 | 2011 |
| Oman | Duqm | Oman oil | 200 | Planned* |
| Saudi Arabia | Jubail | Total / Saudi Aramco | 400 | 2011 |
| Saudi Arabia | Yanbu | ConocoPhillips / Saudi Aramco | 400 | 2011 |
| UAE | Fujairah, Abu Dhabi | Ipic / Conoco Phillips | 500 | Planned* |
| Asia- Pacific | | | | |
| China | Dalian | PetroChina | 200 | Planned* |
| China | Daya Bay | CNOOC | 240 | Planned* |
| China | Guangzhou, guangdong | Sinopec/ Kuwait Petroleum | 300 | 2010 |
| China | Qingdao | Sinopec/ Foreign partner | 200 | Planned* |
| China | Tianjin | Sinopec/ Sabic | 250 | Planned* |
| India | Bhatinda | Hindustan | 180 | 2010 |
| India | Bina | Bharat | 120 | 2010 |
| India | Paradip | IOC | 300 | 2011 |
| Indonesia | Java | Pertamina / NIOC | 300 | 2010 |
| Indonesia | Tuban | Pertamina / Sinopec | 150 | Planned* |
| Pakistan | Baluchistan | Khalifa Point | 260 | 2010 |
| South Korea | Seosan | S-Oil | 480 | 2010-13 |
| Taiwan | Yulin | KPTC | 300 | 2015 |
| North America | | | | |
| US | Yuma, Arizona | Arizona Clean Fuels | 150 | 2009 |
| South and Central America | | | | |
| Brazil | Rio de Janerio | Petrobas / Ultra | 150 | 2012 |
| Brazil | Suape, Pemambuco | Petrobas / PdV | 200 | 2012 |

Source: Industry, Reuters

* Start date is uncertain ** To reach Capacity in 2010

***Reconstruction of the non operational Tripoli and Zahraani refineries is being considered as an alternative

Substantial Refinery Expansion

| Region | Country | Company | Present capacity | Planned | Net addition | Target date | (kbpd) |
|----------------------|----------------------|------------------------------------|------------------|---------|--------------|-------------|--------|
| Africa | | | | | | | |
| Algeria | Skikda | Sonatrach | 300 | 400 | 100* | 2008 | |
| Morocco | Mohammedia | Samir | 125 | 170 | 45 | 2006 | |
| Middle East | | | | | | | |
| Iran | Abadab | NIOC | 335 | 385 | 50 | Planned* | |
| Iran | Bandar Abbas | NIOC | 220 | 320 | 100 | 2009 | |
| Iran | Lavan island | NIOC | 30 | 50 | 20 | 2009 | |
| Kuwait | Mina al- Ahmadi | KPC | 240 | 335 | 95 | 2010 | |
| Oman | Mina al- Ahmadi | Oman Oil | 85 | 105 | 20 | 2007 | |
| Saudi Arabia | Ras Tanura | Saudi Aramco | 550 | 660 | 110 | Planned* | |
| Asia- Pacific | | | | | | | |
| China | Fujian | Sinopec/ Exxon Mobil/ Saudi Aramco | 80 | 240 | 160 | Planned* | |
| India | Jamnagar | Reliance | 660 | 1,240 | 580 | 2008 | |
| India | Mangalore | ONGC | 240 | 300 | 60 | 2008 | |
| India | Panipat | IOC | 240 | 300 | 60 | 2009 | |
| North America | | | | | | | |
| US | Garyville, Louisiana | Marathon | 245 | 425 | 180 | 2009 | |
| US | Port Arthur, Texas | Motiva (Shell- Saudi Aramco) | 325 | 600 | 275 | 2010 | |
| US | Port Arthur, Texas | Valero | 250 | 325 | 75 | 2006 | |

Source: Reuters

* Start uncertain

** Condensate splitter

Annexure VI: Tightening of the product specifications

1996-2009: Motor fuel quality standards (Europe)

Product quality in Europe

| Gasoline | 1996 | 2000 | 2005 | 2009 |
|--------------------|---------|---------|-------------|--------|
| Sulfur max. | 500 ppm | 150 ppm | 50 ppm (10) | 10 ppm |
| Benzene max. (%) | 5 | 1 | 1 | ? |
| Aromatics max. (%) | na | 42 | 35 | ? |
| Olefins max. (%) | na | 18 | 18 | ? |

| Diesel fuel | 1996 | 200 | 2005 | 2009 |
|-----------------------|---------|---------|-------------|--------|
| Sulfur max | 500 ppm | 350 ppm | 50 ppm (10) | 10 ppm |
| Cetane number min. | 49 | 51 | 51 | ? |
| Polyaromatics (%) | na | 11 | 11 | ? |
| Specific gravity max. | 860 | 845 | 845 | ? |

Source: IFP

Annexure VII: Dieselisation of the global demand

Diesel penetration on European markets

(% of passenger car registrations)

| | 1985 | 1990 | 1995 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 (f) |
|-----------------------|------|------|------|------|------|------|------|------|----------|
| France | 15 | 33 | 46.5 | 44.1 | 49.0 | 56.2 | 63.2 | 67.4 | 70.0 |
| Germany | 22.1 | 9.8 | 14.6 | 22.4 | 30.3 | 34.5 | 37.9 | 39.9 | 43.0 |
| Italy | 25.1 | 7.8 | 10.3 | 29.4 | 33.6 | 36.5 | 43.5 | 48.7 | 51.0 |
| Spain | 21.7 | 14.2 | 33.0 | 50.6 | 53.1 | 52.5 | 57.3 | 60.9 | 62.0 |
| United Kingdom | 3.6 | 6.4 | 20.2 | 13.8 | 14.1 | 17.8 | 23.5 | 27.3 | 29.0 |
| Europe (17 countries) | 15.6 | 13.9 | 22.1 | 28.4 | 32.1 | 36.0 | 40.3 | 43.7 | 46.0 |

Source: CCFA

(f): forecast

Annexure VIII: Retail opportunities

✦ Retail industry India - fragmented and unstructured

In India only 2% of retail is organised

In terms of structure the retail industry is highly fragmented and predominantly consists of independent owner-managed shops. The organised retail industry constitutes only 2% of the total retail market. In terms of value, organised retail was estimated to be at INR 210 bn in 2003-04.

✦ Global comparison

The variation in the structure of the global retail industry across economies is striking. The retail industry in the developed economies operates largely through the organised retail channels.

The penetration of retailing exceeds 80% of the population in the developed nations, but, is lower at about 40% in developing nations like Thailand, Indonesia, and Malaysia.

Share of modern retail in different countries

| Country | Size (INR bn) | Traditional channel (%) | Modern channel (%) |
|--------------|---------------|-------------------------|--------------------|
| US | 102,300 | 15 | 85 |
| Taiwan | 5,060 | 19 | 81 |
| Malaysia | 880 | 45 | 55 |
| Thailand | 968 | 60 | 40 |
| Brazil | 4,400 | 64 | 36 |
| Indonesia | 3,330 | 70 | 30 |
| Poland | 2,420 | 80 | 20 |
| China | 14,300 | 80 | 20 |
| India | 7,920 | 98 | 2 |

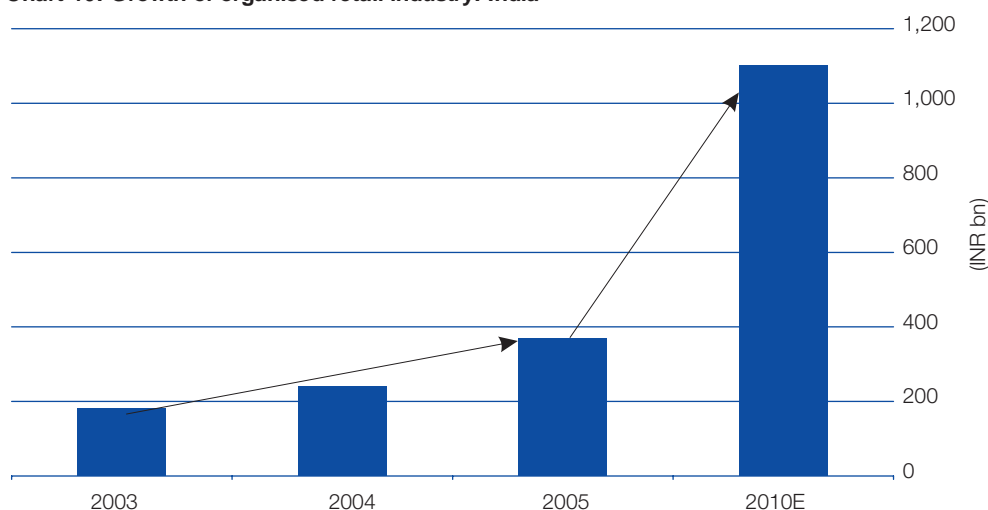
Source: The Marketing Whitebook, 2005, Businessworld

✦ Indian organised retail set to show significant growth

Organised retail expected to become 10% by 2010

The share of organised retail in the total retail pie is set to increase from the current 2% to about 10% by 2010. (Source: KSA Technopak) This will translate to approximately INR 1,400bn (USD 31 bn) of retail trade by 2010 and this growth would be fuelled primarily by sales in the apparel and food segments. This growth is on the back of changing customer aspirations and improving retail real estate infrastructure in the country.

Chart 46: Growth of organised retail industry: India



Source: Edelweiss research

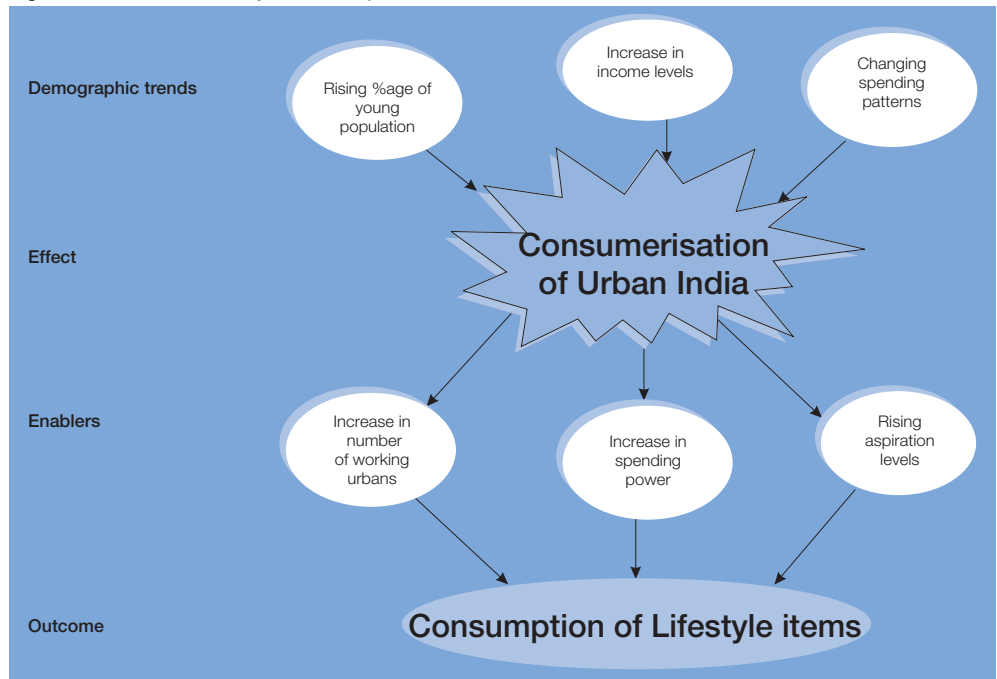
Growth in business expected from new class consumers

*** Retail boom why now?**

The country is experiencing certain socio-economic changes that will fuel growth in organised retail. Some of the key enabling factors for the same are:

- Increase in affluence levels
- Increased purchasing power of the average Indian consumer
- Changing demography and aspirations of the Indian population
- Simpler tax structure and regulations for making tax evasion tougher for unorganised players
- Real-estate developments across the country.

Fig. 11: Evolution of Lifestyle consumption



Source: Edelweiss research

Demographic trends that have emerged over the last few years and the strong growth in the Indian economy post liberalisation are charting a new growth path for many consumer goods and services companies.

We believe that the growth for these businesses will come from an emerging class of consumers who will come of age in the next few years.

Key reasons for this belief include:

- (1) Growth in the number of young working people in urban India who have grown up post liberalisation
- (2) Rise in aspiration levels
- (3) Increase in spending power.

*** Steady growth**

The Indian retail landscape is evolving with interplay of factors ranging from demographic to economic ones, facilitating the growth of organised retail. The retail industry is in a booming phase with retail sales increasing at an average annual rate of 7% during 1999-2002. According to industry estimates, the growth rate is forecasted to be significantly higher at 8.3% annually during 2003-08, which is higher than the forecasted rate of 7.1% for consumer expenditure.

Annexure IX: Benefits of SEZ

✦ What is SEZ?

Special Economic Zone (SEZ) is a demarcated duty-free enclave, which is considered outside the customer territory, for the purpose of carrying out authorised activities. There are 14 operational SEZs in India. In addition, around another 150 SEZs have been approved and are currently in various stages of development. For a multi-product SEZ the minimum area requirement is 1,000 hectares. For special SEZs minimum area required is lesser at 10 hectares.

✦ Fiscal benefits from SEZ

The fiscal benefits to SEZ developers are:

Direct tax incentives

- 10 years tax holiday
- Exempt from dividend distribution tax
- Interest on long-term finance tax exempt
- Long- term capital gains arising on transfer of shares in developers company tax exempt
- No MAT (Minimum Alternative Tax)

Indirect Tax Incentives are:

- No import duty
- No Excise duty
- Exemption from Central Sales Tax on purchase from DTA
- Exemption from service tax
- Exemption from tax on sale of electricity for self generated and purchased power

The benefits to manufacturers are from:

Income tax incentives

- 100% for the first 5 years of operations
- 25% to 50% for the second 5 years
- 25% to 50% of the reinvested profits for the subsequent 5 years

Other incentives related to local production tax and sales tax.

Other negotiable incentives

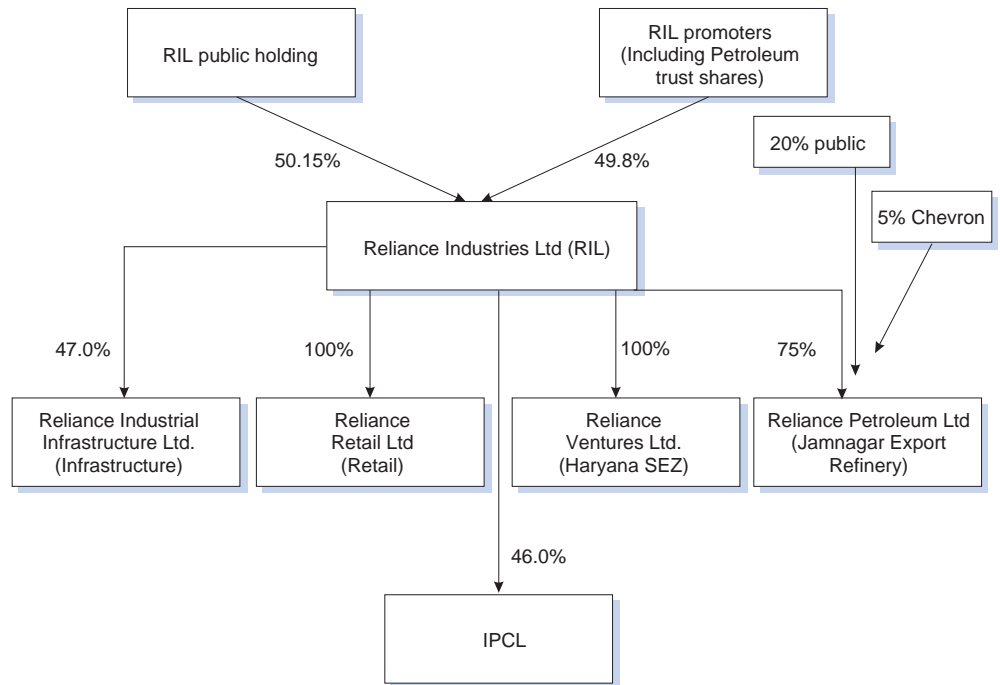
Annexure X: Profit petroleum share of each block

Gol share of profit petroleum (%)

| Investment multiple | PMT | KG-D6 | NEC-25 | KG-OSN/2001/1 | KG-III-6 |
|---------------------|------|-------|--------|---------------|----------|
| < 1.5x | 5.0 | 10.0 | 10.0 | 15.0 | 16.0 |
| 1.5x - 2.0x | 5.0 | 16.0 | 16.0 | 25.0 | 25.0 |
| 2.0x - 2.5x | 15.0 | 28.0 | 22.0 | 40.0 | 40.0 |
| 2.5x - 3.0x | 25.0 | 85.0 | 28.0 | 70.0 | 70.0 |
| 3.0x - 3.5x | 40.0 | 85.0 | 70.0 | 70.0 | 70.0 |
| > 3.5x | 50.0 | 85.0 | 70.0 | 70.0 | 70.0 |

Source: Industry

Annexure XI: RIL holding structure



Source: Company

Annexure XII: RIL discoveries

| Block/Field | Round | Operator | Name of discovery | Oil/Gas | Date of discovery | Present status |
|---------------|----------|----------|-------------------|---------|-------------------|---|
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-1 | Gas | Oct, 2002 | Dhirubhai-1, 2 & 3 declared as commercial. Development plan for Dhirubhai 1& 3 approved. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-2 | Gas | Oct, 2002 | Dhirubhai-1, 2 & 3 declared as commercial. Development plan for Dhirubhai 1& 3 approved. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-3 | Gas | Oct, 2002 | Dhirubhai-1, 2 & 3 declared as commercial. Development plan for Dhirubhai 1& 3 approved. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-4 | Gas | Jan, 2003 | Commerciality under review |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-5 | Gas | Jul, 2003 | Under Evaluation by operator |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-6 | Gas | Jul, 2003 | Commerciality under review |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-7 | Gas | May, 2004 | Commerciality under review. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-8 | Gas | May, 2004 | Commerciality under review. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-16 | Gas | Aug, 2004 | Commerciality under review. |
| NEC-OSN-97/2 | NELP I | RIL | Dirubhai-9 | Gas | Jun, 2004 | Commerciality approved on 02.05.2006. |
| NEC-OSN-97/2 | NELP I | RIL | Dirubhai-10 | Gas | Jun, 2004 | Commerciality approved on 02.05.2006. |
| NEC-OSN-97/2 | NELP I | RIL | Dirubhai-11 | Gas | Jun, 2004 | Commerciality approved on 02.05.2006. |
| NEC-OSN-97/2 | NELP I | RIL | Dhirubhai-15 | Gas | Aug, 2004 | Commerciality approved on 02.05.2006. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-18 | Gas | Apr, 2005 | Under Evaluation by operator |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-19 | Gas | Apr, 2005 | Commerciality under review. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-22 | Gas | Aug, 2005 | Commerciality under review. |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-23 | Gas | Oct, 2005 | Commerciality under review. |
| NEC-OSN-97/2 | NELP I | RIL | Dhirubhai-20 | Gas | Apr, 2005 | Commerciality approved on 02.05.2006 |
| NEC-OSN-97/2 | NELP I | RIL | Dhirubhai-21 | Gas | Apr, 2005 | Commerciality approved on 02.05.2006 |
| KG-OSN-2001/2 | NELP III | RIL | Dhirubhai-24 | Oil/Gas | Dec, 2005 | Under Evaluation by operator |
| KG-OSN-2001/2 | NELP III | RIL | Dhirubhai-25 | Oil/Gas | Dec, 2005 | Under Evaluation by operator |
| KG-DWN-98/3 | NELP I | RIL | Dhirubhai-26 | Oil | Jun, 2006 | Under Evaluation by operator |
| KG-OSN-2001/1 | NELP III | RIL | Dhirubhai-28 | Gas | Sep, 2006 | Under Evaluation by operator |

Source: DGH India

Annexure XIII: Valuations of International major petrochemical companies*

| Company name | Country | EV (USD bn) | 1 Year | 2 Year | 1 Year | 2 Year | ROCE | P/BV | ROE |
|--------------------------------|-------------|----------------|---------------|---------------|-------------|-------------|-------|------|-------|
| | | | forward | forward | forward | forward | | | |
| | | | EV/ EBITDA | EV/ EBITDA | PE | PE | | | |
| Bayer AG | Germany | 66,3 | 9.6 | 8.4 | 17.5 | 14.8 | 13.3 | 2.5 | 14.6 |
| BASF AG | Germany | 58.5 | 4.8 | 4.7 | 10.5 | 10.4 | 15.6 | 2.0 | 18.1 |
| Dow Chemical Co/The | USA | 47.6 | 6.2 | 5.9 | 9.6 | 10.0 | 21.1 | 2.3 | 32.7 |
| Shin-Etsu Chemical Co Ltd | Japan | 25.0 | 7.8 | 7.0 | 21.9 | 19.2 | 11.8 | 5.0 | 7.3 |
| Formosa Petrochemical Corp | Taiwan | 23.1 | 10.5 | 9.1 | 13.5 | 11.1 | 20.5 | 2.9 | 29.4 |
| Mitsubishi Chemical Hold. Corp | Japan | 16.7 | 8.9 | 8.3 | 10.2 | 11.7 | NA | 2.2 | NA |
| Sumitomo Chemical Co Ltd | Japan | 15.1 | 6.7 | 6.2 | 14.5 | 15.1 | 29.3 | 3.7 | 12.7 |
| Lyondell Chemical Co | USA | 14.3 | 6.0 | 4.9 | 7.6 | 7.0 | 10.0 | 1.8 | 18.2 |
| Polski Koncern Naftowy Orlen | Poland | 8.5 | 5.1 | 5.1 | 8.5 | 8.4 | 12.2 | 1.1 | 30.7 |
| Showa Denko KK | Japan | 8.1 | 9.1 | 7.7 | 18.9 | 15.3 | (1.2) | 2.7 | 0.5 |
| Celanese Corp | USA | 6.2 | 5.5 | 5.3 | 7.2 | 7.1 | 25.8 | 5.8 | NA |
| Eastman Chemical Co | USA | 6.1 | 6.1 | 6.3 | 12.3 | 13.3 | 11.7 | 2.6 | 39.8 |
| Showa Shell Sekiyu KK | Japan | 5.4 | 6.9 | 7.5 | 11.7 | 15.6 | 22.5 | 1.8 | 22.7 |
| Lanxess AG | Germany | 4.9 | 6.1 | 5.5 | 15.6 | 13.3 | (1.5) | 2.7 | (4.9) |
| Sinopec Shanghai Pet. Co Ltd | China | 4.7 | 12.4 | 8.5 | 34.0 | 13.2 | 2.6 | 1.4 | 9.9 |
| Tosoh Corp | Japan | 4.6 | 6.3 | 5.8 | 12.4 | 11.4 | 11.4 | 2.0 | 12.7 |
| LG Chem Ltd | South Korea | 4.5 | 3.9 | 3.8 | 7.7 | 6.4 | 16.4 | 1.1 | 17.2 |
| Nova Chemicals Corp | Canada | 3.8 | 5.9 | 4.6 | 12.5 | 7.8 | -0.4 | 1.8 | (7.7) |
| Westlake Chemical Corp | USA | 2.2 | 4.7 | 4.8 | 9.2 | 9.8 | 17.8 | 1.9 | 25.7 |
| Indian Petrochemicals Co | India | 2.1 | 4.4 | 5.8 | 7.3 | 10.1 | 18.4 | 2.5 | 30.4 |
| Hanwha Chem Corp | South Korea | 1.8 | 7.4 | 7.8 | 5.0 | 6.1 | 31.7 | 0.6 | 20.8 |
| Honam Petrochemical Corp | South Korea | 1.6 | 4.5 | 6.3 | 5.8 | 6.7 | 32.3 | 0.9 | 27.6 |
| Aromatics Thailand PCL | Thailand | 1.4 | 7.0 | 6.8 | 6.4 | 6.6 | 10.6 | 1.8 | 28.7 |
| AVERAGE | | | 6.8 | 6.4 | 12.2 | 10.9 | | | |
| MEDIAN | | | 6.2 | 6.2 | 10.5 | 10.4 | | | |

Source: Bloomberg, Industry

* as on November 14, 2006

Annexure XIV: Valuations of International major refining companies*

| Company name | Country | Enterprise Value (USD bn) | 1Year forward EV/ EBITDA | 2Year forward EV/ EBITDA | 1Year forward PE | 2Year forward PE | P/B | ROE |
|------------------------------|-------------|---------------------------|--------------------------|--------------------------|------------------|------------------|-----|------|
| Valero Energy Corp | USA | 36.9 | 4.5 | 5.1 | 6.0 | 6.9 | 1.9 | 31.7 |
| Formosa Petrochemical Corp | Taiwan | 22.8 | 9.3 | 8.0 | 13.5 | 10.7 | 2.9 | 29.4 |
| Indian Oil Corp Ltd | India | 18.1 | 8.8 | 9.0 | 11.3 | 11.0 | 1.9 | 17.0 |
| Nippon Oil Corp | Japan | 18.1 | 7.5 | 7.3 | 13.5 | 12.3 | 1.5 | 10.5 |
| SK Corp | South Korea | 15.9 | 1.3 | 1.2 | 6.0 | 5.6 | 1.1 | 22.6 |
| Sunoco Inc | USA | 10.2 | 4.3 | 4.5 | 8.3 | 8.6 | 3.8 | 53.3 |
| Neste Oil OYJ | Finland | 9.2 | 7.5 | 7.0 | 12.7 | 10.8 | 4.0 | 51.4 |
| Polski Koncern Naftowy Orlen | Poland | 8.7 | 5.8 | 5.8 | 9.0 | 8.7 | 1.2 | 30.7 |
| S-Oil Corp | South Korea | 7.7 | 4.4 | 4.4 | 7.2 | 7.5 | 2.1 | 25.5 |
| Cosmo Oil Co Ltd | Japan | 7.3 | 9.3 | 9.0 | 11.5 | 12.8 | 1.2 | 21.6 |
| Showa Shell Sekiyu KK | Japan | 5.4 | 7.3 | 7.7 | 11.9 | 16.0 | 1.8 | 22.7 |
| Hellenic Petroleum SA | Greece | 5.4 | 7.7 | 8.1 | 11.6 | 12.3 | 1.4 | 16.7 |
| Caltex Australia Ltd | Australia | 5.0 | 8.5 | 7.7 | 13.4 | 11.5 | 2.5 | 31.6 |
| ERG SpA | Italy | 4.8 | 9.3 | 5.8 | 26.1 | 9.7 | 2.2 | 38.8 |
| Tesoro Corp | USA | 4.5 | 2.7 | 3.4 | 6.5 | 8.0 | 1.8 | 31.6 |
| Thai Oil PCL | Thailand | 4.1 | 5.4 | 5.2 | 7.0 | 7.0 | 1.9 | 33.3 |
| Bharat Petroleum Corp Ltd | India | 4.0 | 6.0 | 5.5 | 11.0 | 10.7 | 1.5 | 21.7 |
| Hindustan Petroleum Corp Ltd | India | 3.5 | 7.8 | 6.5 | 11.2 | 9.0 | 1.2 | 5.3 |
| Esso Ste Anonyme Francaise | France | 3.0 | 3.4 | 3.4 | 4.6 | 3.9 | 1.5 | 28.1 |
| Petrol Ofisi | Turkey | 2.1 | 5.9 | 5.7 | 11.3 | 8.0 | 1.1 | 10.3 |
| AVERAGE | | | 6.4 | 6.1 | 11.0 | 9.9 | | |
| MEDIAN | | | 6.7 | 5.8 | 11.3 | 9.4 | | |

Source: Bloomberg, Industry * as on November 09, 2006

NOTES

NOTES

Edelweiss Securities

14th Floor, Express Towers,
Nariman Point, Mumbai – 400 021
Board: +91 22 2286 4400
Email: research@edelcap.com



Naresh Kothari - 22864246

Head, Institutional Equities

Vikas Khemani - 22864206

Co-Head, Institutional Equities

| INDIA RESEARCH | SECTOR | INSTITUTIONAL SALES |
|-------------------------------|---|--------------------------------|
| Shriram Iyer - 2286 4256 | Head – Research | Nischal Maheshwari - 2286 4205 |
| Gautam Roy - 2286 4305 | Airlines, Textile | Rajesh Makharia - 2286 4202 |
| Ashutosh Goel - 2286 4287 | Automobiles, Auto Components | Shabnam Kapur - 2286 4394 |
| Vishal Goyal, CFA - 2286 4370 | Banking & Finance | Amish Choksi - 2286 4201 |
| Revathi Myneni - 2286 4413 | Cement | Deepak Rao - 2286 4204 |
| Sumeet Budhraj - 2286 4430 | FMCG | Balakumar V - (044) 4263 8283 |
| Harish Sharma - 2286 4307 | Infrastructure, Auto Components, Mid Caps | Monil Bhala - 2286 4363 |
| Priyanko Panja - 2286 4300 | Infrastructure, Engineering, Telecom | Ashish Agrawal - 2286 4301 |
| Hitesh Zaveri - 2286 4424 | Information Technology | Nikhil Garg - 2286 4282 |
| Pritesh Vinay - 2286 4429 | Metals, Mining | Neha Shahra - 2286 4276 |
| Priyank Singhal - 2286 4302 | Media, Retail | Priya Ramchandran - 2286 4389 |
| Prakash Kapadia - 2286 4432 | Mid Caps | Anubhav Kanodia - 2286 4361 |
| Niraj Mansingka - 2286 4304 | Oil & Gas, Petrochemicals | Tushar Mahajan - 2286 4439 |
| Nimish Mehta - 2286 4295 | Pharmaceuticals, Agrochemicals | Harsh Biyani - 2286 4419 |
| Swati Khemani - 2286 4266 | Textile | Nirmal Ajmera - 2286 4258 |
| Manika Premsingh - 4019 4847 | Economist | Ankit Doshi - 2286 4671 |
| Sachin Arora - 2286 4512 | Alternative & Quantitative | Ravi Pilani - 4009 4533 |
| Sunil Jain - 2286 4308 | Alternative & Quantitative | Dipesh Shah - 2286 4434 |
| Yogesh Radke - 2286 4328 | Alternative & Quantitative | |

Email addresses: firstname.lastname@edelcap.com

e.g. naresh.kothari@edelcap.com

unless otherwise specified

RATING INTERPRETATION

| | | | |
|--------------------|---|---------------------|---|
| Buy | Expected to appreciate more than 20% over a 12-month period | Reduce | Expected to depreciate up to 10% over a 12-month period |
| Accumulate | Expected to appreciate up to 20% over a 12-month period | Sell | Expected to depreciate more than 10% over a 12-month period |
| Trading Buy | Expected to appreciate more than 10% over a 45-day period | Trading Sell | Expected to depreciate more than 10% over a 45-day period |

This document has been prepared by Edelweiss Securities Private Limited (Edelweiss). Edelweiss and its holding company and associate companies are a full service, integrated investment banking, portfolio management and brokerage group. Our research analysts and sales persons provide important input into our investment banking activities. This document does not constitute an offer or solicitation for the purchase or sale of any financial instrument or as an official confirmation of any transaction. The information contained herein is from publicly available data or other sources believed to be reliable, but we do not represent that it is accurate or complete and it should not be relied on as such. Edelweiss or any of its affiliates shall not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This document is provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. The user assumes the entire risk of any use made of this information. Each recipient of this document should make such investigation as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult his own advisors to determine the merits and risks of such investment. The investment discussed or views expressed may not be suitable for all investors. We and our affiliates, officers, directors, and employees may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as advisor or lender / borrower to such company (ies) or have other potential conflict of interest with respect to any recommendation and related information and opinions. This information is strictly confidential and is being furnished to you solely for your information. This information should not be reproduced or redistributed or passed on directly or indirectly in any form to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject Edelweiss and affiliates to any registration or licensing requirements within such jurisdiction. The distribution of this document in certain jurisdictions may be restricted by law, and persons in whose possession this document comes, should inform themselves about and observe, any such restrictions. The information given in this document is as of the date of this report and there can be no assurance that future results or events will be consistent with this information. This information is subject to change without any prior notice. Edelweiss reserves the right to make modifications and alterations to this statement as may be required from time to time. However, Edelweiss is under no obligation to update or keep the information current. Nevertheless, Edelweiss is committed to providing independent and transparent recommendation to its client and would be happy to provide any information in response to specific client queries. Neither Edelweiss nor any of its affiliates, directors, employees, agents or representatives shall be liable for any damages whether direct, indirect, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report. Analyst holding in stock: no.