

Company In-Depth

25 April 2007 | 15 pages

Reliance Petroleum (RPET.BO)

Upgrade to Buy: Horses for Courses

 Rating change
 Target price change
 Estimate change

- Upgrade to Buy (1M)** — Delays in global capacity additions and sustained crack spreads lead us to upgrade our GRM assumptions and earnings estimates. Our new target price of Rs100 is based on a rollover to a March-08 EV/EBITDA of 7.0x FY10E (first full year of operation), discounted back. Early commissioning and clean fuel premium could provide further upsides, 7-8% and 10% respectively.
- Where's the new refining supply?** — Our Global Oil team notes growing risks to refinery expansion plans in the Middle East due to cost inflation. Besides, the supply side is not responding to the growing diesel deficit in Europe. Delayed capacity expansion bodes well for RPL's margins in FY10-12E; we believe our revised diesel/gasoline crack spread assumptions of US\$10-11/bbl are still conservative relative to the level justified by new-build cost economics.
- Showcase assets, strong parent and tax breaks** — RPL's high complexity is tailor-made to cater to product-specific demand across refining basins. Its parent brings strong project skills providing assurance; recent update indicates a possibility of earlier than scheduled commissioning of the refinery (Dec-2008). Superior cost economics and tax breaks add to the inherent value.
- Risks** — A structural slowdown in global distillate demand, emergence of alternative fuels/technologies, and possible merger with RIL are the key long-term risks for the company.

| | |
|------------------------------|--------------|
| Buy/Medium Risk | 1M |
| <i>from Hold/Medium Risk</i> | |
| Price (24 Apr 07) | Rs79.20 |
| Target price | Rs100.00 |
| <i>from Rs71.00</i> | |
| Expected share price return | 26.3% |
| Expected dividend yield | 0.0% |
| Expected total return | 26.3% |
| Market Cap | Rs356,400M |
| | US\$8,744M |

Price Performance (RIC: RPET.BO, BB: RPET IN)



See Appendix A-1 for Analyst Certification and important disclosures.

Statistical Abstract

| Year to | Net Profit | Diluted EPS | EPS growth | P/E | EV/EBITDA | ROE |
|---------|------------|-------------|------------|-----|-----------|------|
| 31 Mar | (RsM) | (Rs) | (%) | (x) | (x) | (%) |
| 2010E | 61,964 | 13.77 | na | 5.8 | 5.8 | 33.0 |
| 2011E | 64,919 | 14.43 | 4.8 | 5.5 | 5.2 | 30.4 |
| 2012E | 56,569 | 12.57 | -12.9 | 6.3 | 5.1 | 21.7 |

Source: Powered by dataCentral

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| Fiscal year end 31-Mar | 2010E | 2011E | 2012E | 2013E | 2014E |
|--|----------------|----------------|----------------|----------------|----------------|
| Valuation Ratios | | | | | |
| P/E adjusted (x) | 5.8 | 5.5 | 6.3 | 7.3 | 7.8 |
| EV/EBITDA adjusted (x) | 5.4 | 5.0 | 4.9 | 4.8 | 4.4 |
| P/BV (x) | 1.9 | 1.5 | 1.3 | 1.1 | 1.0 |
| Dividend yield (%) | 2.6 | 3.6 | 4.0 | 3.4 | 3.2 |
| Per Share Data (Rs) | | | | | |
| EPS adjusted | 13.77 | 14.43 | 12.57 | 10.82 | 10.18 |
| EPS reported | 13.77 | 14.43 | 12.57 | 10.82 | 10.18 |
| BVPS | 41.70 | 53.25 | 62.67 | 70.79 | 78.43 |
| DPS | 2.07 | 2.89 | 3.14 | 2.70 | 2.55 |
| Profit & Loss (RsM) | | | | | |
| Net sales | 472,040 | 460,584 | 451,681 | 445,594 | 441,455 |
| Operating expenses | -402,141 | -389,590 | -391,546 | -395,352 | -395,560 |
| EBIT | 69,898 | 70,994 | 60,135 | 50,241 | 45,894 |
| Net interest expense | -8,848 | -8,845 | -7,862 | -7,179 | -7,150 |
| Non-operating/exceptionals | 1,378 | 4,178 | 6,480 | 8,469 | 10,689 |
| Pre-tax profit | 62,428 | 66,328 | 58,753 | 51,532 | 49,433 |
| Tax | -464 | -1,408 | -2,184 | -2,854 | -3,602 |
| Extraord./Min.Int./Pref.div. | 0 | 0 | 0 | 0 | 0 |
| Reported net income | 61,964 | 64,919 | 56,569 | 48,678 | 45,831 |
| Adjusted earnings | 61,964 | 64,919 | 56,569 | 48,678 | 45,831 |
| Adjusted EBITDA | 83,548 | 84,800 | 74,097 | 64,411 | 60,272 |
| Growth Rates (%) | | | | | |
| Sales | na | -2.4 | -1.9 | -1.3 | -0.9 |
| EBIT adjusted | na | 1.6 | -15.3 | -16.5 | -8.7 |
| EBITDA adjusted | na | 1.5 | -12.6 | -13.1 | -6.4 |
| EPS adjusted | na | 4.8 | -12.9 | -14.0 | -5.8 |
| Cash Flow (RsM) | | | | | |
| Operating cash flow | 46,647 | 77,881 | 69,118 | 60,572 | 56,947 |
| Depreciation/amortization | 13,650 | 13,806 | 13,962 | 14,170 | 14,378 |
| Net working capital | -28,502 | 564 | 771 | 579 | 340 |
| Investing cash flow | -2,000 | -3,000 | -3,000 | -4,000 | -4,000 |
| Capital expenditure | -2,000 | -3,000 | -3,000 | -4,000 | -4,000 |
| Acquisitions/disposals | 0 | 0 | 0 | 0 | 0 |
| Financing cash flow | 10,000 | -19,375 | -33,144 | -15,022 | -12,169 |
| Borrowings | 10,000 | -10,080 | -20,160 | -879 | 0 |
| Dividends paid | 0 | -9,295 | -12,984 | -14,142 | -12,169 |
| Change in cash | 54,647 | 55,506 | 32,974 | 41,551 | 40,777 |
| Balance Sheet (RsM) | | | | | |
| Total assets | 369,663 | 414,145 | 437,718 | 471,670 | 505,332 |
| Cash & cash equivalent | 55,112 | 112,026 | 147,184 | 191,589 | 235,968 |
| Accounts receivable | 35,185 | 34,316 | 33,584 | 33,084 | 32,743 |
| Net fixed assets | 214,552 | 203,746 | 192,785 | 182,615 | 172,237 |
| Total liabilities | 181,994 | 174,540 | 155,687 | 153,130 | 152,419 |
| Accounts payable | 26,580 | 25,517 | 25,665 | 25,961 | 25,961 |
| Total Debt | 141,119 | 131,039 | 110,879 | 110,000 | 110,000 |
| Shareholders' funds | 187,669 | 239,605 | 282,032 | 318,540 | 352,913 |
| Profitability/Solvency Ratios (%) | | | | | |
| EBITDA margin adjusted | 17.7 | 18.4 | 16.4 | 14.5 | 13.7 |
| ROE adjusted | 33.0 | 30.4 | 21.7 | 16.2 | 13.7 |
| ROIC adjusted | 24.5 | 25.1 | 21.8 | 18.6 | 17.3 |
| Net debt to equity | 45.8 | 7.9 | -12.9 | -25.6 | -35.7 |
| Total debt to capital | 42.9 | 35.4 | 28.2 | 25.7 | 23.8 |

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What has Changed?

We revise our GRM assumptions for FY10-12E on the back of delayed capacity expansions, sustained strength in product spreads (diesel/gasoline accounts for 70-75% of the product slate) and light-heavy crude px differentials. We summarize the key changes in our GRM/spread assumptions, and EBITDA and EPS estimates in the table below. We depict the representative build-up of RPL's refining margins in Figure 2.

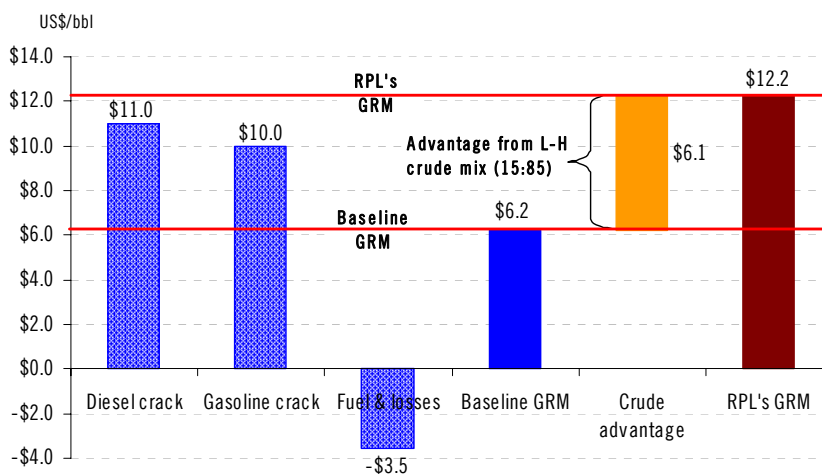
Figure 1. RPL – Estimate Revisions

| Year to 31 Mar | Diesel crack* (US\$/bbl) | | Gasoline crack* (US\$/bbl) | | GRM (US\$/bbl) | | EBITDA (Rs m) | | | EPS (Rs) | | |
|----------------|--------------------------|------|----------------------------|------|----------------|------|---------------|--------|----------|----------|-------|----------|
| | Old | New | Old | New | Old | New | Old | New | % change | Old | New | % change |
| 2010E | 8.5 | 11.0 | 8.0 | 10.0 | 10.4 | 12.2 | 68,492 | 83,548 | 22.0% | 10.37 | 13.77 | 32.7% |
| 2011E | 8.0 | 10.5 | 7.5 | 10.0 | 9.9 | 11.9 | 67,628 | 84,800 | 25.4% | 10.45 | 14.43 | 38.0% |
| 2012E | 7.0 | 9.0 | 6.5 | 9.0 | 8.8 | 10.6 | 61,908 | 74,097 | 19.7% | 9.60 | 12.57 | 30.9% |

*Vis-à-vis Brent

Source: Citigroup Investment Research estimates

Figure 2. Build-up of RPL's 2010E GRM (US\$/bbl)



Source: Citigroup Investment Research estimates

Recent project updates indicate potential commissioning of its Jamnagar project ahead of its slated schedule of December 2008. Though FY2010 remains as the first full year of operations, in our revised estimates, we increase our capacity utilization target to 95% in FY10E and 100% in FY11E vis-à-vis 90% and 95% earlier.

Our Mar-08 valuation target is based on EV/EBITDA of 7.0x FY10E, discounted back by one year. We believe that RPL, with its level of complexity (which accords sustainability to margins) and tax incentives (which support higher

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EBITDA to FCF conversion), warrants a valuation at the higher end of the comparables (i.e., 12-month forward EV/EBITDA of 7.0x).

Figure 3. Valuation Framework

| EV/EBITDA (x) | 6.5x | 7.0x | 7.5x |
|-------------------------------|--------|--------|--------|
| EBITDA (FY10E) - Rs m | 83,548 | 83,548 | 83,548 |
| EV (as on Mar-09) - US\$bn | 13.6 | 14.6 | 15.7 |
| Debt (as on Mar-09) - US\$bn | 3.3 | 3.3 | 3.3 |
| Equity value (Mar-09) -US\$bn | 10.3 | 11.3 | 12.4 |
| Target price - Rs (Mar-08) | 91 | 100 | 110 |

Source: Citigroup Investment Research estimates

Sensitivity analysis

1. **Project Commissioning:** Given the progress of the project, we believe there is potential for early commissioning of the project vis-à-vis the scheduled date of December 2008. If the project commissions six months ahead of schedule, then the additional cash flows could be worth an upside of Rs7-8/share in our estimate, i.e. 7-8% upside to our base case target.
2. **Upside from clean fuel premium:** As the fuel specifications are becoming increasingly stringent, especially around 2010, there is a likelihood of a meaningful premium over the plain vanilla gasoline/diesel. Given RPL's capabilities, every \$1 increase from clean fuel premium in the diesel/gasoline cracks could create additional 10% upside to our base case target.

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Figure 4. Regional/Global Comparables Valuation Table

| Company Name | RIC Code | Rating | Mkt cap (US\$m) | Price (LC) 23-Apr-07 | Target price | P/E (x) | | EV/EBITDA (x) | | P/BV (x) | | Div. Yield (%) | | ROCE (%) | |
|---------------------|-----------|--------|--------------------|-------------------------|-----------------|-------------|-------------|---------------|-------------|------------|------------|----------------|-------------|--------------|--------------|
| | | | | | | FY08E | FY09E | FY08E | FY09E | FY08E | FY09E | FY08E | FY09E | FY08E | FY09E |
| Asia | | | | | | | | | | | | | | | |
| Reliance Industries | RELI.BO | 2L | 52,191 | 1,554 | 1,450 | 21.4 | 19.9 | 14.0 | 12.7 | 4.7 | 3.9 | 0.6% | 0.7% | 15.5% | 14.8% |
| BPCL | BPCL.BO | 3M | 2,812 | 323 | 385 | 6.7 | n/a | 5.4 | n/a | 1.0 | n/a | 4.1% | n/a | 7.7% | n/a |
| HPCL | HPCL.BO | 3M | 2,105 | 257 | 299 | 8.1 | n/a | 5.0 | n/a | 0.9 | n/a | 4.3% | n/a | 6.7% | n/a |
| IOC | IOC.BO | 3M | 11,475 | 408 | 450 | 8.6 | n/a | 6.0 | n/a | 1.2 | n/a | 3.7% | n/a | 7.9% | n/a |
| CPCL | CHPC.BO | 1L | 718 | 200 | 240 | 5.1 | 6.5 | 4.5 | 4.8 | 1.0 | 0.9 | 7.9% | 6.1% | 12.1% | 9.8% |
| PTT | PTT.BK | 1M | 18,098 | 210 | 271 | 7.0 | 7.0 | 5.0 | 4.9 | 1.7 | 1.4 | 4.4% | 4.3% | 20.5% | 18.7% |
| Thai Oil | TOP.BK | 1M | 3,886 | 62 | 77 | 8.3 | 9.8 | 4.9 | 4.8 | 1.5 | 1.4 | 5.1% | 4.3% | 19.8% | 18.6% |
| Sinopec | 0386.HK | 3L | 14,859 | 7 | 7 | 9.1 | 10.9 | 2.2 | 2.4 | 1.9 | 1.7 | 2.7% | 2.2% | 14.9% | 11.3% |
| Asia Avg. | | | | | | 14.6 | 12.9 | 9.1 | 7.6 | 3.1 | 2.5 | 2.3% | 1.6% | 15.2% | 12.8% |
| Japan | | | | | | | | | | | | | | | |
| Cosmo Oil Co Ltd | 5007.T | 3H | 2,849 | 503 | 385 | 14.6 | 14.6 | 9.7 | 9.2 | 0.9 | 0.9 | 1.6% | 1.6% | 2.9% | 3.0% |
| Nippon Oil | 5001.T | 2H | 11,522 | 933 | 910 | 14.8 | 14.8 | 9.3 | 8.6 | 1.0 | 1.0 | 1.3% | 1.3% | 3.1% | 3.3% |
| Npn Min Holdings | 5016.T | 2H | 7,589 | 970 | 850 | 11.2 | 13.8 | 10.5 | 10.8 | 1.3 | 1.2 | 1.6% | 1.6% | 7.9% | 6.6% |
| AOC Holdings | 5017.T | 1H | 1,208 | 1,855 | 3,300 | 8.1 | 15.0 | 7.3 | 9.8 | 1.1 | 1.0 | 0.8% | 0.8% | 9.1% | 4.2% |
| TonenGeneral | 5012.T | 2M | 6,346 | 1,290 | 1,170 | 28.9 | 30.1 | 18.6 | 18.6 | 3.1 | 3.0 | 2.9% | 2.9% | 3.9% | 4.0% |
| Showa Shell | 5002.T | 3M | 4,543 | 1,431 | 1,160 | 19.9 | 19.9 | 10.6 | 11.6 | 1.7 | 1.6 | 2.5% | 2.5% | 3.7% | 3.4% |
| Japan Avg. | | | | | | 17.1 | 18.1 | 11.4 | 11.5 | 1.6 | 1.5 | 1.8% | 1.8% | 4.6% | 4.2% |
| US | | | | | | | | | | | | | | | |
| Valero | VLO.N | 2H | 41,225 | 68 | 71 | 7.6 | 9.5 | 4.6 | 5.3 | 1.8 | 1.6 | 0.7% | 0.7% | 19.7% | 14.5% |
| Tesoro | TSO.N | 2H | 7,495 | 110 | 120 | 7.4 | 8.1 | 3.6 | 4.6 | 2.1 | 1.7 | 0.4% | 0.4% | 25.0% | 17.7% |
| Delek US Hldg | DK.N | 2S | 969 | 19 | 20 | 9.5 | 10.9 | 5.3 | 5.9 | 2.1 | 1.8 | 1.8% | 0.8% | 19.5% | 15.3% |
| Sunoco | SUN.N | 1H | 8,869 | 73 | 90 | 8.2 | 9.3 | 4.7 | 5.3 | 3.3 | 2.8 | 1.5% | 1.5% | 18.0% | 14.2% |
| US Avg. | | | | | | 7.7 | 9.3 | 4.5 | 5.2 | 2.1 | 1.8 | 0.8% | 0.8% | 20.1% | 14.9% |
| Europe | | | | | | | | | | | | | | | |
| ERG | ERG.MI | 2H | 4,276 | 21 | 23 | 10.2 | 10.2 | 5.1 | 5.5 | 2.0 | 1.8 | 2.0% | 2.5% | 12.2% | 10.4% |
| Hellenic Petroleum | HEPr.AT | 2H | 4,622 | 11 | 11 | 13.2 | 13.0 | 9.0 | 8.3 | 1.4 | 1.3 | 3.8% | 3.8% | 7.9% | 8.0% |
| MOL | MOLB.BU | 2M | 13,480 | 22,300 | 21,500 | 11.7 | 11.9 | 6.4 | 6.2 | 1.6 | 1.4 | 2.1% | 2.1% | 15.9% | 14.9% |
| Motor Oil | MORr.AT | 1M | 3,098 | 21 | 25 | 10.8 | 10.7 | 8.9 | 8.5 | 5.1 | 5.0 | 8.8% | 8.9% | 20.2% | 20.6% |
| Neste Oil | NESIV.HE | 1L | 9,145 | 26 | 28 | 11.9 | 10.9 | 7.9 | 7.2 | 2.8 | 2.4 | 4.2% | 4.6% | 16.8% | 15.8% |
| OMV | OMVV.VI | 1H | 18,958 | 47 | 52 | 9.4 | 9.5 | 5.0 | 4.6 | 1.7 | 1.5 | 2.3% | 3.2% | 14.5% | 13.8% |
| Europe Avg. | | | | | | 10.9 | 10.8 | 6.4 | 6.1 | 2.1 | 1.9 | 3.1% | 3.5% | 14.8% | 14.0% |
| EMEA | | | | | | | | | | | | | | | |
| Sasol | SOLJ.J | 2M | 21,650 | 245 | 270 | 9.6 | 8.0 | 5.7 | 5.2 | 2.3 | 1.9 | 3.3% | 3.6% | 19.1% | 18.8% |
| PKN ORLEN | PKNA.WA | 2M | 7,305 | 48 | 52 | 9.9 | 7.5 | 6.3 | 5.4 | 1.0 | 0.9 | 3.0% | 4.0% | 7.2% | 8.8% |
| Tupras | TUPRS.IS | 2M | 5,691 | 31 | 19 | 12.4 | 12.4 | 8.6 | 8.5 | 2.7 | 2.6 | 6.5% | 6.5% | 21.4% | 21.2% |
| Petrol Ofisi AS | PTOFS.IS | 1S | 1,866 | 6 | 7 | 15.4 | 11.8 | 7.0 | 7.3 | 1.3 | 1.2 | 0.0% | 0.0% | 12.0% | 10.2% |
| Gazpromneft | SIBN.RTS | 2M | 18,491 | 4 | 5 | 7.4 | 7.9 | 6.3 | 6.5 | 1.6 | 1.4 | 2.8% | 2.7% | 23.6% | 20.7% |
| Surgutneftegaz | SNGS.RTS | 3H | 44,943 | 1 | 1 | 13.5 | 14.9 | 5.2 | 5.4 | 1.8 | 1.7 | 1.6% | 1.5% | 20.3% | 16.6% |
| Tatneft | TATN.RTS | 2H | 11,002 | 5 | 5 | 10.7 | 11.8 | 8.1 | 9.0 | 1.2 | 1.1 | 1.4% | 0.8% | 9.6% | 8.0% |
| Lukoil | LKOH.RTS | 1L | 71,320 | 84 | 104 | 10.2 | 10.2 | 7.0 | 7.1 | 1.9 | 1.6 | 2.5% | 2.4% | 17.6% | 15.7% |
| TNK-BP Holding | TNBPI.RTS | 1H | 34,231 | 2 | 4 | 6.8 | 7.1 | 4.1 | 4.1 | 2.2 | 1.9 | 7.4% | 7.0% | 31.5% | 27.9% |
| EMEA Avg. | | | | | | 10.2 | 10.4 | 6.1 | 6.1 | 1.9 | 1.7 | 3.2% | 3.2% | 20.3% | 18.0% |
| Total Avg. | | | | | | 12.6 | 12.6 | 7.3 | 7.1 | 2.5 | 2.1 | 2.2% | 2.1% | 17.4% | 15.1% |

Note: All averages are market cap weighted

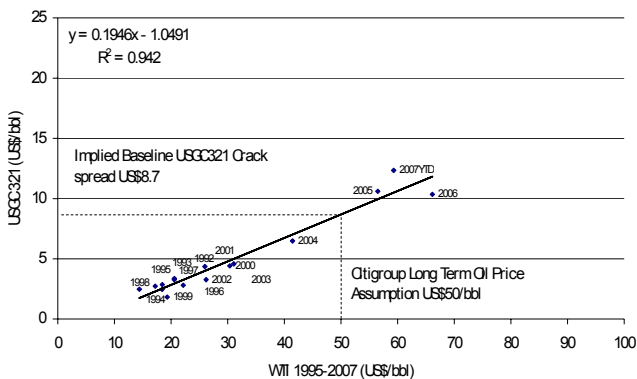
Source: Powered by dataCentral

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New assumptions in-line with Citi's Global Oil forecast

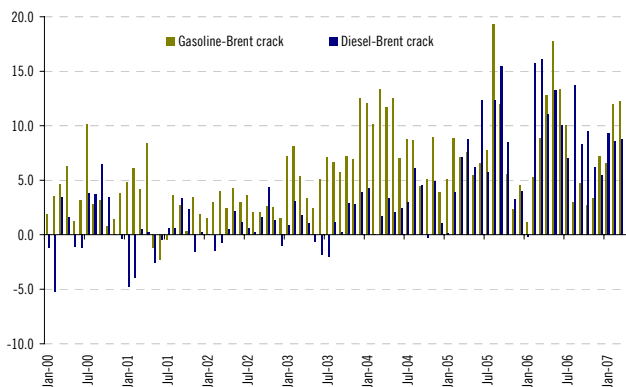
While our revised assumptions are on the back of an altering D-S scenario, especially for FY10-12E, the longer-term dynamics are also well supported by the empirical correlation between long-term crude price expectations and: 1) light-heavy differentials, and 2) product crack spreads. For instance, our revised product spread assumptions for FY10-12E are consistent with the historical correlation between GC321 cracks and WTI.

Figure 5. WTI vs. Baseline 321 Crack Spread: US\$50 WTI implies US\$8.7/bbl USGC321 Crack Spread



Source: Citigroup Investment Research

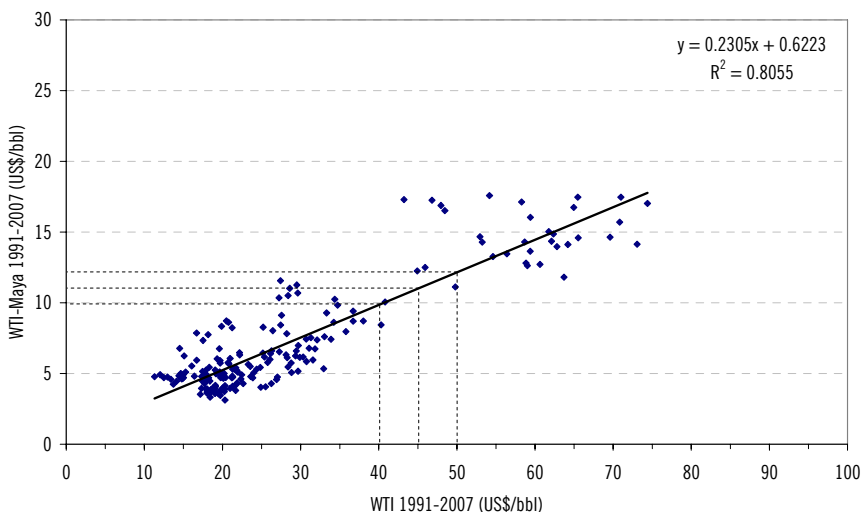
Figure 6. Movement of Gasoline and Diesel Cracks vis-à-vis Brent (US\$/bbl)



Source: Bloomberg

Similarly, our WTI-Maya differential of US\$10.0-10.5/bbl in FY10-12E is consistent with Citi's long-term WTI forecast of US\$50/bbl.

Figure 7. Correlation between WTI-Maya Differential and WTI (US\$/bbl)

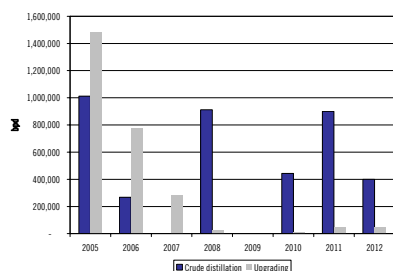


Source: Bloomberg, Citigroup Investment Research estimates

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Where's the new refining supply?

Figure 8. Capacity Additions – Global Refining

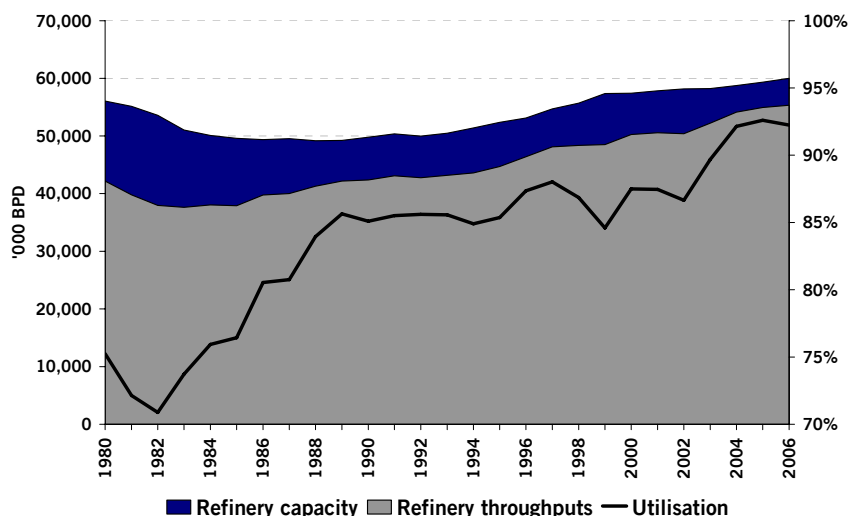


Source: Citigroup Investment Research

In recent years, rising throughputs and utilization rates have bumped up against fairly flat capacity (see chart below). With industry profitability rising as a result of this, the expectation has long been that new capacity additions are drawn into the market. Based on announced plans, the anticipation was that most of these capacity adds would come through over the 2009-12 period (i.e., 4-5 years after the upswing in refining profitability).

New capacity additions are anticipated from differing sources, but can broadly be divided into three categories: 1) new-build greenfield refining capacity (principally in the Middle East, North Africa, India and China), 2) upgrades to existing capacity, focusing on improving the product slate to enhance the yield of key automotive products – diesel and gasoline, and 3) "alternative" investments in other potential sources of supply – either biofuels or Fischer-Tropsch based technologies – specifically gas-to-liquids (GTL).

Figure 9. Global Refining Capacity, Throughputs and Utilization Rates



Source: BP Statistical Review, Citigroup Investment Research

Our European Oils Team, however, observes that there is now clear evidence of potential disruptions to this capacity build¹. The disruptions focus particularly on cost inflation, but they also attest to an increasingly stretched supply chain for new project delivery, which will increase the risk that many such projects will see further delays. We focus-in on three areas of investment in particular – new-build refineries, GTL and European diesel upgrading investments.

1. Greenfield Middle Eastern/North African refinery

Middle East and North African refinery new builds were initially anticipated to add up to 3.5mmbpd of new refining capacity by 2012, as illustrated in the

¹ Refer to the reported titled 'European Refiners – Stay the Course' dated 10 April 2007. To access the report, click on: <https://www.citigroupgeo.com/pdf/SEU05982.pdf>

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chart below. That said, there is very little tangible progress on any of these projects, first discussed back in 2005. In fact, the latest development in this space was the sharp increase in investment costs associated with the Kuwaiti 600+kbpd Al Zour refinery. From an initial estimate of US\$6bn for this project (equivalent to US\$10,000/bpd of capacity), the average of nine bids tendered came in at closer to US\$15bn (or \$25,000/bpd of capacity). The likelihood is that this tender will be cancelled, leading to moves either to upgrade the much older Shuaiba refinery, or to launch a non-lump sum turnkey tender, and instead go for a cost reimbursable option. Either way, a material delay is likely.

With LUKoil also backing out of a planned 200kbpd refinery new build on the Black Sea coast of Turkey in recent weeks, we should question the sort of pricing assumptions needed on refined product sales in order to justify such investments in new capacity. The implications are obvious, given the "pending" nature of a number of other projects in Saudi Arabia, UAE, Algeria and Egypt (see below).

Figure 10. Middle East and North African Greenfield Supply and Capacity expansion plans

| Country | Location | Capacity | Date | Comment |
|---------------------|----------------------|----------|------|--|
| Middle East | | | | |
| Saudi Arabia | Rabigh | 80 | 2008 | Expansion: extra 80kbpd of gasoline and 2.4mmtpa of olefins |
| | Ras Tanura | 525 | 2010 | Seeking international partners |
| | Yanbu | | 2012 | Upgrade to simple configuration |
| | Jubail | 400 | | Shortlisting partners - ConocoPhillips, Chevron, ExxonMobil included |
| | Yanbu | 400 | | Shortlisting partners - ConocoPhillips, Chevron, ExxonMobil included |
| Kuwait | Al Zour | 600 | 2010 | Invitations to bid for 3 EPC packages for early 2006 |
| | Mina al-Ahmadi | | | Expansions - new crude distillation units |
| UAE | Mina Abdullah | | | Expansions - new crude distillation units |
| | Fujairah | 300 | | Newbuild. Looking to produce high grade gasoline and sulphur |
| Dubai | Ruwais | | | Expansions |
| Dubai | Jebel Ali | | | CCR and hydrotreater |
| Bahrain | Sitra | | 2007 | Low sulphur diesel project, base oil plant, 40kbpd hydrocracker |
| Oman | Mina al-Fahal | 20 | 2007 | Revamp |
| | | 116 | 2006 | Newbuild. |
| Iraq | Nahrain | 140 | | Newbuild. Bids due |
| North Africa | | | | |
| Algeria | Algiers | 310 | 2010 | Export refinery jv proposal |
| | Adrar | 20 | | CNPC to build? |
| | Skikda | | | Upgrade to meet Europe 2009 specifications |
| | Algiers | | | Upgrade to meet Europe 2009 specifications |
| | Arzew | | | Upgrade to meet Europe 2009 specifications |
| Egypt | Suez | 130 | | |
| | Port Said / Damietta | 350 | | Feasibility study |

Source: Citigroup Investment Research

In view of this, we model below a "state-of the art" newbuild 400kbpd refinery, based on a \$25,000/kbpd construction cost. The refinery uses a diet of 100% Arab Heavy crude with zero transportation costs, to produce a yield of 94% light products, 50% being diesel.

On the basis of our current refined product crack estimates – which assume \$15/bbl diesel crack, the refinery generates a gross margin of \$16.90/bbl. On this basis, and even assuming a five-year tax holiday for a new-build construction, the refinery would generate a 5% IRR. In fact, the diesel crack

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required to generate an IRR in excess of our nominal 10% hurdle rate would be \$26/bbl (current European diesel cracks are \$13/bbl).

Figure 11. Summary IRR Statistics for Newbuild Refinery

| Investment metric | |
|-----------------------------------|--------|
| Total investment cost | 10,000 |
| Diesel crack required for 10% IRR | \$26.0 |
| IRR assuming \$15 diesel crack | 5% |

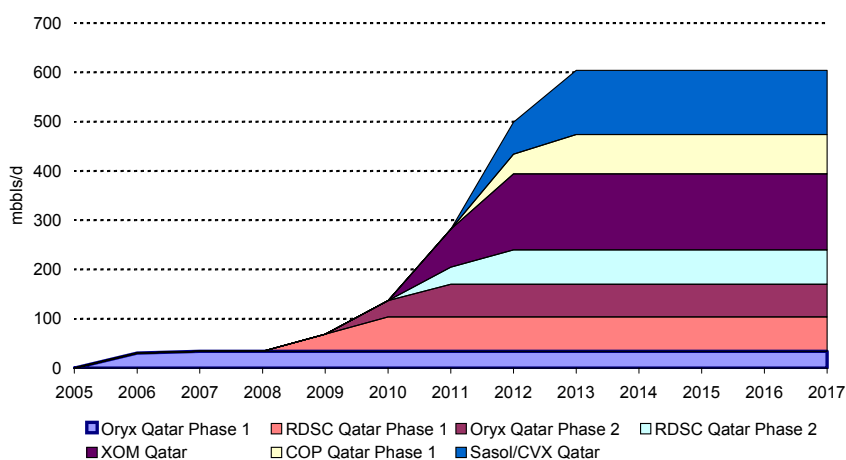
Source: Citigroup Investment Research

Clearly on this basis, it is hard to justify newbuild refineries economically in the current macro environment. A decision to pursue such an investment may not entirely depend on such stringent criteria, with new employment opportunities, and a diversification away from pure exposure to crude exports also valid considerations. The likelihood remains, however, that such low returns on investment may prove a considerable impediment to future investment timing.

2. Gas-to-Liquids

Concurrently with rising concerns over refining capacity, Exxon Mobil recently announced that it would not go ahead with its Palm Qatar GTL project. This removes up to 150kbpd of high quality diesel, lubricants and petrochemical feedstocks from 2012 estimates. Again high costs were cited as the reason for abandoning the project. Initially, in 2004 when the heads of agreement was signed on the project, costs were estimated at US\$7bn. The current cost of this project was now seen at \$15bn-\$20bn, however.

Figure 12. Gas-to-Liquids Supply Plans – Including Exxon Mobil Palm Qatar



Source: Citigroup Investment Research

As the chart above illustrates, planned GTL projects provide a vital source of incremental clean distillate capacity aimed at addressing the c.650kbpd diesel deficit that already exists in Europe.

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A number of projects do still exist, however, and we include our model for generic GTL capacity, based on our modelling of RD Shell's Pearly Qatar GTL below (this model was first highlighted in the note of September 2006, "2P for Free"). If we assume a \$15.5bn investment cost – in-line with the Exxon cost estimates on a pro-rata basis, and a \$15/bbl "crack" – in-line with our anticipated diesel crack – the project is forecast to generate a 9% IRR. Again this is not a particularly impressive return on a large-scale deployment of capital, albeit higher than a refinery newbuild, courtesy of the cost-recovery dynamics of the PSC.

Figure 13. Summary of Pearl Qatar Gas-to-Liquids , based on \$15/bbl end-product crack

| | | |
|------------------------|------|----------------|
| Brent oil price | | \$47.50 |
| Revenue (\$m) | | 4,691 |
| Tot liq prod | - WI | 975.mmbbls |
| Total gas prod | - WI | 12,994bcf |
| Total capex | | \$15,460m |
| Capex/bbl total | | \$4.81/bbl |
| Capex/bbl entitlement | | \$11.62/bbl |
| IRR | | 9.00% |

Source: Citigroup Investment Research

The nature of these project economics, however, implies to us that upwards pressure will be exerted on end-product prices given the marginal cost of new supply. On our estimates, an end-selling price for the GTL product (linked to diesel pricing in the end-market) a crack of in excess of \$20/bbl is required to see project returns rise to above a 10% hurdle rate.

3. Upgrading investment – European hydrocracker investment

By far, the most appealing route to add new capacity to refined product markets, in our view, is to continue upgrading investment in the existing supply base. We update our model of a 50kbpd hydrocracker investment in a European refinery below. The new model assumes an investment cost of \$1bn – up from the initial estimate of \$600m in 2005 – but more in line with the cost inflation reported by Neste Oil in the construction of its unit, which is now due onstream in April 2007.

If we assume, as with our modelling of a greenfield refinery above, that diesel cracks average \$20/bbl over the medium term, the return on such an investment is now seen at 15% – superior to both greenfield investments above – clearly illustrating in our minds that the best way for Europe in particular to address its diesel shortages is for further upgrading capacity expansions.

The story does not, however, end there. In the last two weeks, Hellenic Petroleum has announced a delay of up to a year in its planned hydrocracker investment at its simple Elefsina refinery, due to supply chain delays. In February, Cepsa pushed back the start-up of its hydrocracker investment to the end of 2009, vs an earlier expectation of 2008, due to similar contractor delays. ConocoPhillips has delayed plans to upgrade its Wilhelmshaven refinery from 2007 to 2008 at the earliest due to rising costs. Even in the US, both Sunoco and Tesoro have reviewed their expansion plans due to rising costs.

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The supply chain for new capacity appears, on the above evidence, to be stretched to near breaking point. The likelihood appears, in our view, that we can expect further delays and cancellations in the coming months. In view of this, the new supply outlook for European capacity adds in particular, looks increasingly skewed towards the 2009-11 period, vs. our previous estimates of new capacity adds from 2008.

Project Update – Running ahead of schedule

RPL in its quarterly update today outlined “remarkable” progress in project implementation. This opens up the possibility of the project commissioning ahead of its slated schedule i.e., December 2008. Our base case conservatively assumes commissioning in March 2009.

As per the company update today, RPL has achieved an overall project progress nearing 50% in just 15 months. Some of the progress achieved during the quarter is as below.

1. Achieved 80% completion of detailed engineering work
2. Over 4400 critical and long lead items ordered globally. Deliveries have already commenced at the site including heat exchangers, turbines, fired heaters, amine absorbers.
3. Completed 75% of civil construction.
4. On the back of progress in civil construction activities, nearly 30% of pipe fabrication and pipe erection work is also complete

Reliance Petroleum

Company description

RPL is 75% owned by Reliance Industries (RIL) and is setting up a super-size greenfield refinery (580,000bpd) and polypropylene plant in Jamnagar in the State of Gujarat. The project cost is estimated at Rs270bn (US\$6bn), of which 50% has been raised as equity through the promoter contribution and IPO in early FY07. The project is scheduled to commission in December 2008.

Investment thesis

We rate Reliance Petroleum (RPL) Buy/Medium Risk (1M) rating with a target price of Rs100. RPL is constructing a super-sized refinery (580kbpd) targeted at export markets. Key competitive advantages, which we expect to aid sustenance of superior margins, include a heavier crude mix, product flexibility, and superior fuel specs. A tried-and-tested location and parent RIL's strong execution track record imparts RPL a head start over competing projects, which are subject to delays. RPL's proposed refinery would operate as swing capacity catering to product-specific demand across refining basins. We expect tightening fuel specs, especially in the US and Europe, will continue to drive demand for high-quality, differentiated products. The secular upward trend in US gasoline demand and the dieselization of Europe presents RPL with location-specific product gaps. Superior project economics and tax incentives complete the recipe for value creation from the project.

Valuation

Our primary valuation methodology uses a traditional EV/EBITDA multiple applied to the average of FY10E estimates (first full year of operations). We believe EV/EBITDA is an appropriate valuation metric as it eliminates variations due to capital structure and taxation, thus facilitating peer comparison. We believe that RPL, with its level of complexity (which we believe accords sustainability to margins) and corporate tax incentives (which support higher free cash flow for the same EBITDA), warrants a valuation at the higher end of comparables, i.e. a 12-month forward EV/EBITDA of 7x. Based on FY10E EBITDA and discounting the resultant equity value by one year, we arrive at the Mar-08 target of Rs100.

Risks

Our quantitative risk rating system suggests a default Speculative Risk rating to RPL since the stock has traded for less than 12 months. We believe a Medium Risk rating is more appropriate, however, given RPL's strong parentage and favorable demand-supply economics. Any of the following risk factors could prevent the shares from reaching our target price: 1) refining margins are immensely volatile, placed as they are between two highly efficient spot markets: the crude market and the end-product market. RPL's margins would therefore be exposed to global refining cycles. Being an export-oriented refinery, RPL would also be subject to product-specific price and differential movements in the major refinery basins, 2) RPL's profitability would also be subject to the variations in the L/H differential which are a function of demand growth for light/medium distillates, secondary conversion capacities, as well as incremental supplies of various grades of crude. Therefore, an earlier-than-expected commissioning of capacities (especially in the Middle East) by competitors or a global slowdown in distillate demand could have negative implications for RPL's profitability. In the long-term, any move to merge with the parent, RIL, could pose risks to the stock, although Chevron's stake would be an impediment to the merger.

Appendix A-1

Analyst Certification

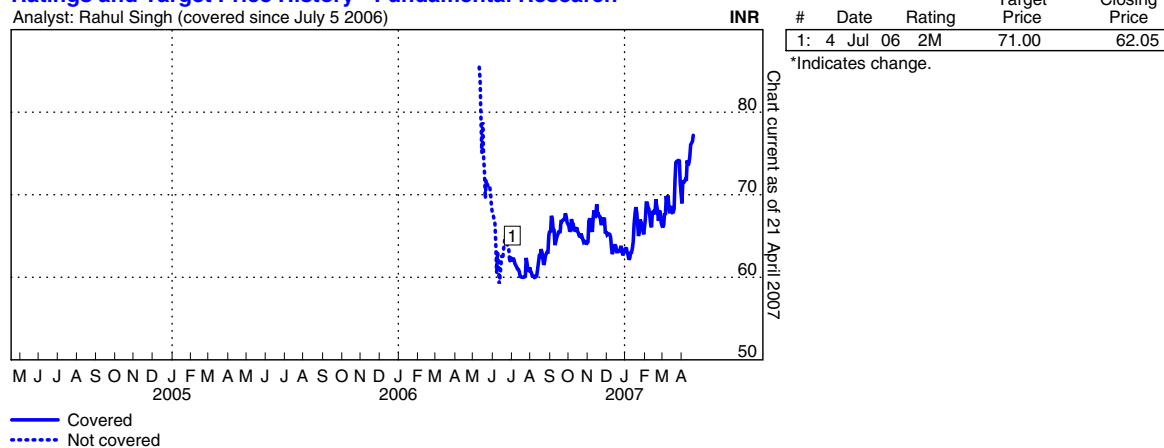
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Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since July 5 2006)



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