



Indian lubricants industry

An overview of the market, its growth prospects and foreign investment

ABOUT THE AUTHOR

India Analysis provides research, analysis and advisory services on Indian business. For more details please visit the website IndiaAnalysis.com. India Analysis is a part of Heernet Ventures Limited.

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Key observations

- Market was liberalised in the early 1990s and went through a period of rapid growth as foreign players entered the market and domestic players (such as Castrol India and Gulf) invested in new capacity and marketing capabilities
- The two major segments of the market (automotive and industrial) show different characteristics and growth prospects. The automotive segment is more mature, whilst investment in power and manufacturing should see strong growth in the industrials segment
- Indian companies are also beginning to export to local markets in South Asia and the Middle East

Automotive segment

- Fuel policy will require Euro-IV (in metros) and Euro-III (in other areas) compliant fuels by 2010
- Healthy growth in vehicle sales should enhance growth prospects in the medium term
- Key growth markets are high end, premium oils for 4 stroke engines and multi-grade oils
- Rural markets are becoming increasingly important for new vehicle sales
- Substantial investment activity in this segment from both domestic and foreign players

Industrial lubricants

- Complex market led by segments such as transformer oils, aviation and marine lubricants
- Strong prospects as major customer segments (power generation, shipping, aviation) will see long term, structural growth
- Presents an promising area of focus for foreign players, with technical expertise and established brands in industrial lubricants



1. Market overview

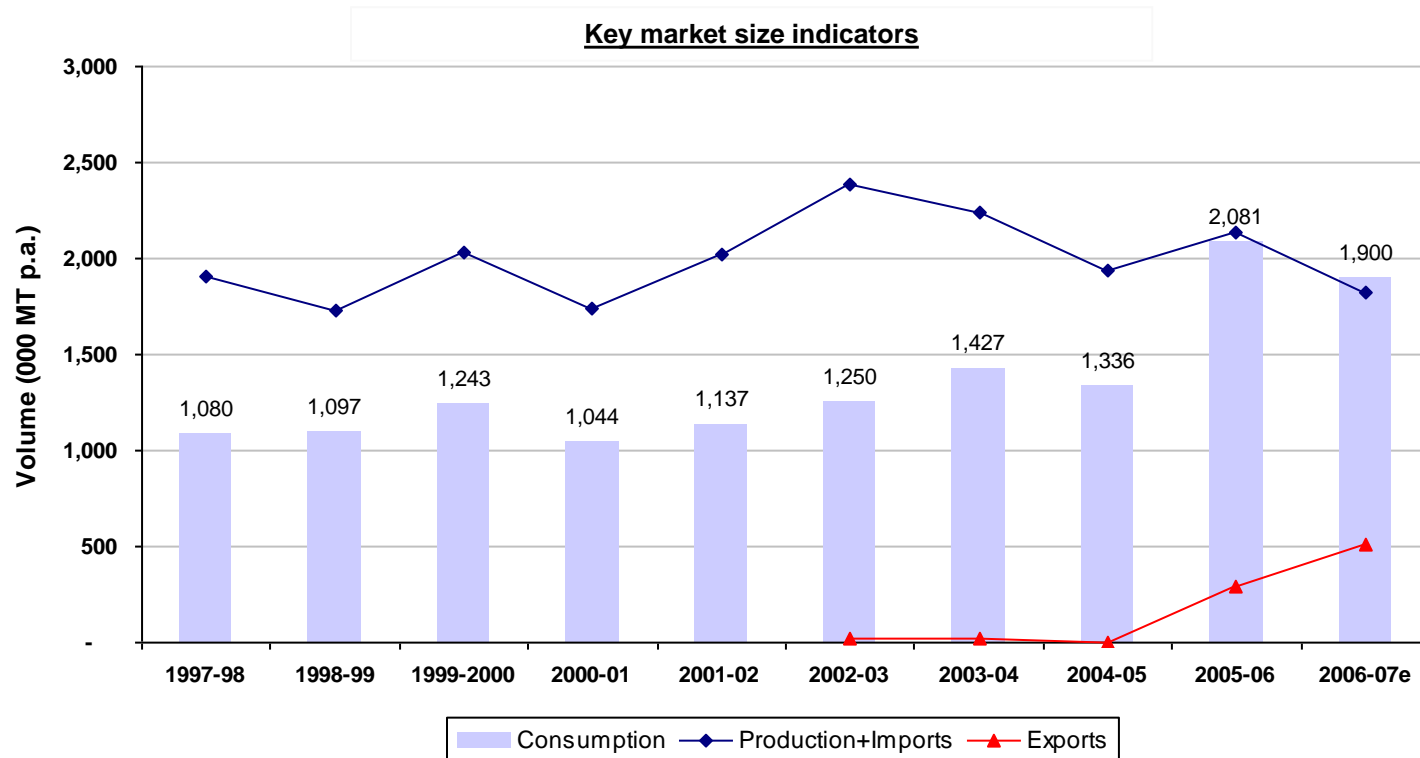
Sector development

| | Pre - 1991 | 1991- 93 | Mid 1990s | Late 1990s onwards |
|------------------------|---|---|--|--|
| | Pre-liberalisation | Liberalisation | Strong growth | Increasing competition |
| Regulatory environment | <ul style="list-style-type: none"> Lubricants sector effectively controlled by the PSUs Only Indian Oil allowed to import Base Oil Private sector players not allowed to sell through petrol stations Pricing of finished products controlled | <ul style="list-style-type: none"> Restrictions removed from Base Oil sourcing and pricing and distribution of finished products Import duty on base oil reduced from 85% to 30% (1993) | <ul style="list-style-type: none"> No major changes | <ul style="list-style-type: none"> 1999 - Mandate from Supreme Court for change in fuel technology to Euro II emissions compliance PSUs not allowed to sell lubricant products from commercial players through their petrol stations |
| Market | <ul style="list-style-type: none"> Four major players (Indian Oil, Hindustan Petroleum, Bharat Petroleum and Castrol) Smaller players included IBP and Tidewater PSUs have 90% share and Castrol India with 5-6% share | <ul style="list-style-type: none"> Number of multinationals entered the market through both standalone operations and joint ventures | <ul style="list-style-type: none"> 30-40 players Rapid growth in bazaar shops OEM producers become an increasingly important influencers PSUs lose market share to private players | <ul style="list-style-type: none"> Oil price rises <u>Automotive</u> Stagnant growth Overcapacity <u>Industrial</u> Increasing demand for speciality lubricants due to rising growth areas such as power generation and shipping |
| Foreign investment | <ul style="list-style-type: none"> No significant foreign presence | <ul style="list-style-type: none"> Number of multinationals entered the market through both standalone operations and joint ventures | <ul style="list-style-type: none"> Ongoing investment in distribution and branding | <ul style="list-style-type: none"> A number of new entrants into the industrial lubricants market |

*PSU – Public service undertaking (i.e. a state owned business)

Market size

- The Indian lubricants market consumed approximately 2 million MT (2006/07)
- Over the last 10 years the industry has experienced a broad surplus, with production and imports exceeding domestic requirements
- The industry has also begun to exports to local markets in South Asia and the Middle East



*MT – Metric tonne
Source: Ministry of Petroleum and Natural Gas

Market size

Indian lubricants' industry – market size

| | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07e |
|-------------------------------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|----------|
| <u>Imports</u> | | | | | | | | | | | | |
| Volume (000 MT) | 58 | 44 | 652 | 396 | 407 | 255 | 326 | 340 | 612 | 557 | 1,189 | 1,021 |
| % change | | -24% | 1382% | -39% | 3% | -37% | 28% | 4% | 80% | -9% | 113% | -14% |
| Value (Rs millions) | 1,300 | 1,190 | 3,000 | 1,480 | 2,940 | 5,630 | 5,880 | 5,260 | 2,130 | 9,630 | 29,450 | 33,920 |
| <u>Exports</u> | | | | | | | | | | | | |
| Volume (000 MT) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 17 | 5 | 291 | 509 |
| % change | | | | | | | | | -26% | -71% | 5720% | 75% |
| Value (Rs millions) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 240 | 360 | 230 | 3550 | 12,070 |
| <u>Production</u> | | | | | | | | | | | | |
| Domestic production* (000 MT) | | | 1,250 | 1,336 | 1,625 | 1,482 | 1,691 | 2,049 | 1,628 | 1,385 | 944 | 803 |
| % change | | | | 7% | 22% | -9% | 14% | 21% | -21% | -15% | -32% | -15% |
| <u>Consumption</u> | | | | | | | | | | | | |
| Sales (000 MT) | | | 1,080 | 1,097 | 1,243 | 1,044 | 1,137 | 1,250 | 1,427 | 1,336 | 2,081 | 1,900 |
| % change | | | | 2% | 13% | -16% | 9% | 10% | 14% | -6% | 56% | -9% |

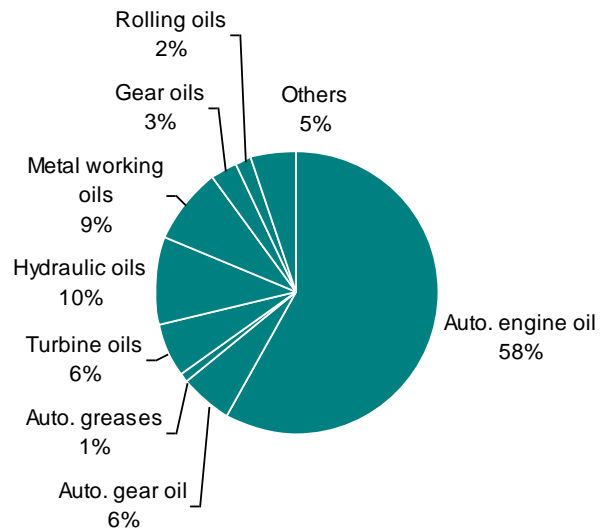
*Lubes and greases

Source: Ministry of Petroleum and Gas

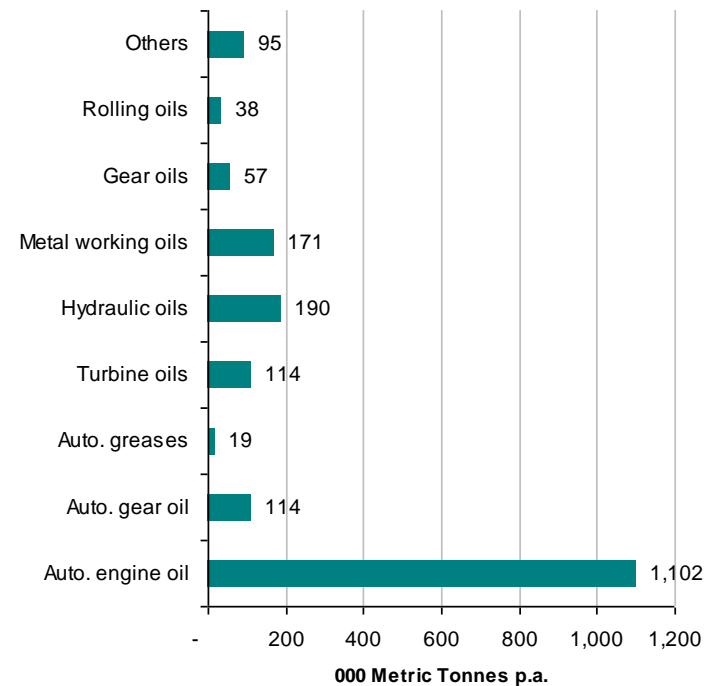
Market structure

- Automotive lubricants account for two thirds of the market and industrial lubricants one third.
- Automotive engine oil remain the largest segment with over 1.1 million MT of sales in 2006/07

Indian lubricant market by product type (2006)



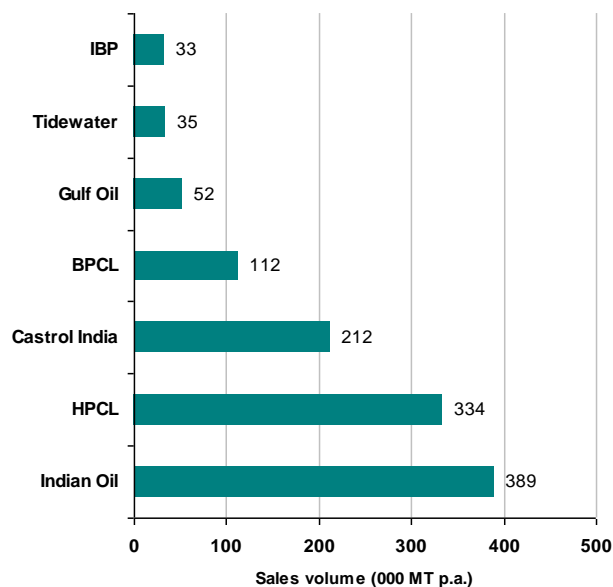
Estimated sales (2006/07)



Market structure

- The industry is led by the PSUs*, in particular the largest operator, Indian Oil
- The rest of the market is composed of a number of local commercial operators, the oil multinationals and a few global lubricant manufacturers (Fuchs Petrolub, Kluber)

Sales volume by major players (2004 data)



Major players

| Player | Ownership | Activities |
|---------------|-------------------|---|
| Indian Oil | Public | Major downstream player. Largest Indian oil company |
| HPCL | Public | Downstream and refining |
| Castrol India | BP | Focused on lubricants |
| BPCL | Public | Downstream and refining |
| Gulf Oil | Hinduja Group | Focused on lubricants |
| Tide water | Andrew Yule Group | Focused on lubricants |
| IBP | Public | Downstream and refining |

*PSU – Public service undertaking (i.e. a state owned business)

Distribution model

Automotive lubricants

- Public sector and commercial distribution models are completely different – though are converging
- PSU distribution
- Vertically integrated blending and retailing model
 - Distribute lubricants through their own petrol stations (don't sell other brands)

Commercial operators

- Distribute through third party, authorised retail outlets. These often operate in clusters near car and bike dealerships
- Large number of unauthorised dealerships

Distribution model

Industrial lubricants and greases

- Large customers are managed directly whilst small customers deal with local dealers
- Highly fragmented dealership networks largely based in the key industrial states.
- Our research identified at least 1,000 companies with some kind of industrial lubricant offering
- Distributors are typically allocated an exclusive territory (in the case of Castrol, India is divided into 5 territories)
- Recruitment of dealerships (by distributors) is largely through local sales and marketing effort and relationships
- Most foreign entrants have established marketing subsidiaries which have then formed partnerships with local dealers and distributors (e.g. Fuchs India Marketing)

Key trends and issues

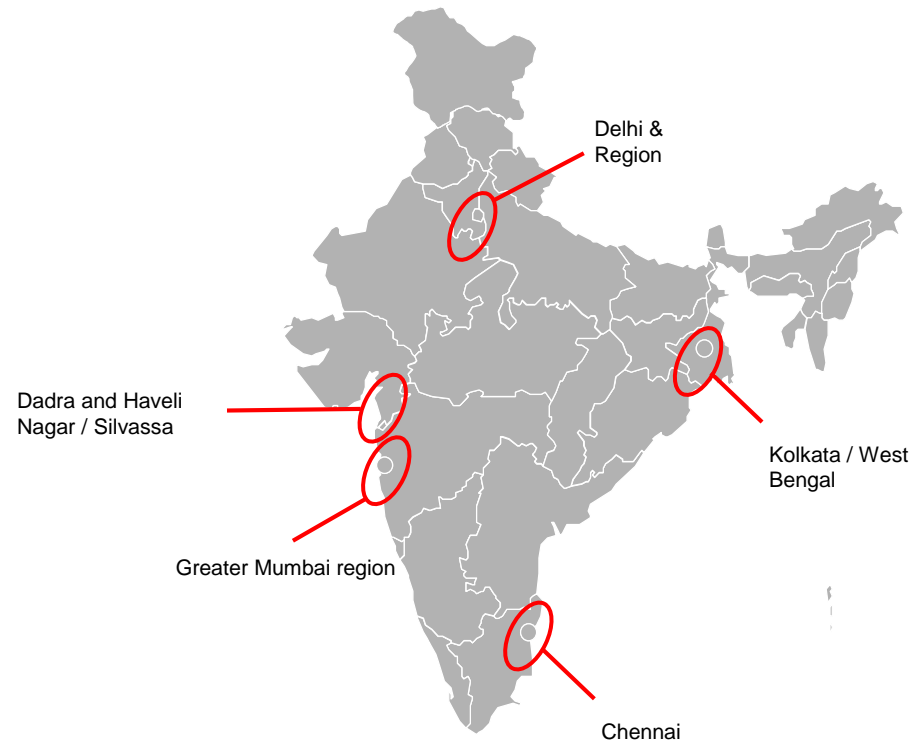
- Some issues with fake lubricants
- Commercial operators (including lubricant manufacturers such as Shell) are opening petrol stations
- Distribution and retail will become more competitive and liberalised – this will see PSUs lose share in sales at petrol stations

- Distribution sector becoming more formalised as industrial development gathers pace and customer demands are more exacting

Geographic location

- The lubricant manufacturing and blending plants are primarily based in five key regions in India. All of these regions are close to large centres of population, major industrial areas and in some cases port facilities
- Dadra and Haveli also offers tax exemptions for capital investment in lubricant operations

Locations of lubricant plants



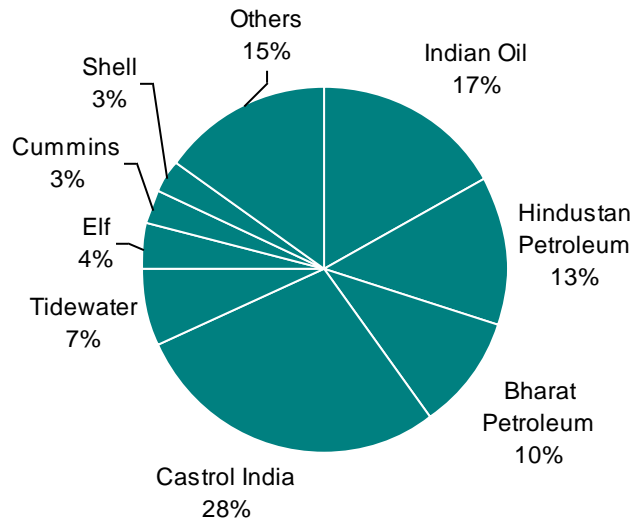


i) Automotive segment

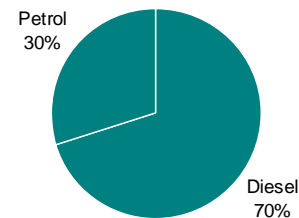
Automotive segment - market structure

- The automotive segment is highly competitive, with the most successful players having strong brand recognition, wide distribution and a reputation for high quality products
- Since the mid 1990s, the PSUs have lost significant market share to commercial operators such as Castrol India
- The diesel segment is the most important, due to the needs of diesel-powered commercial vehicles

Automotive lubricant market – Major players



Automotive lubricants by engine type



Automotive segment - key players and products

- Four players have close to 70% market share (Indian Oil, HPCL, BPCL and Castrol India)
- The companies invest heavily in brand promotion and building distribution

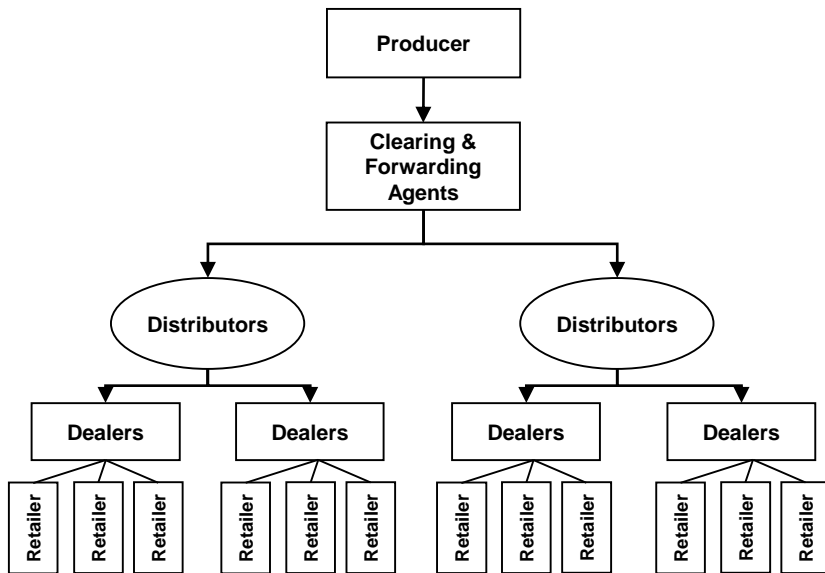
Automotive lubricant market – Major players

| Player | Ownership type | Key retail brands |
|---------------|-----------------------|--|
| Indian Oil | Public | Servo, Kinetic |
| Castrol India | BP | Castrol |
| HPCL | Public | Milcy, HP Koolgard, Laal Ghoda |
| BPCL | Public | Mak |
| Gulf Oil | Hinduja Group | Gulf |
| Tide Water | Andrew Yule Group | Veedol, Eneos (Nippon Oil brand) |
| TotalFinaElf | Total | Total |
| Cummins | Private | Valvoline |
| Bharat Shell | Shell | Helix, Rimula, Spirax, Advance, Pennzoil |
| Fuchs | Fuchs Petrolub | Silkolene, Titan |

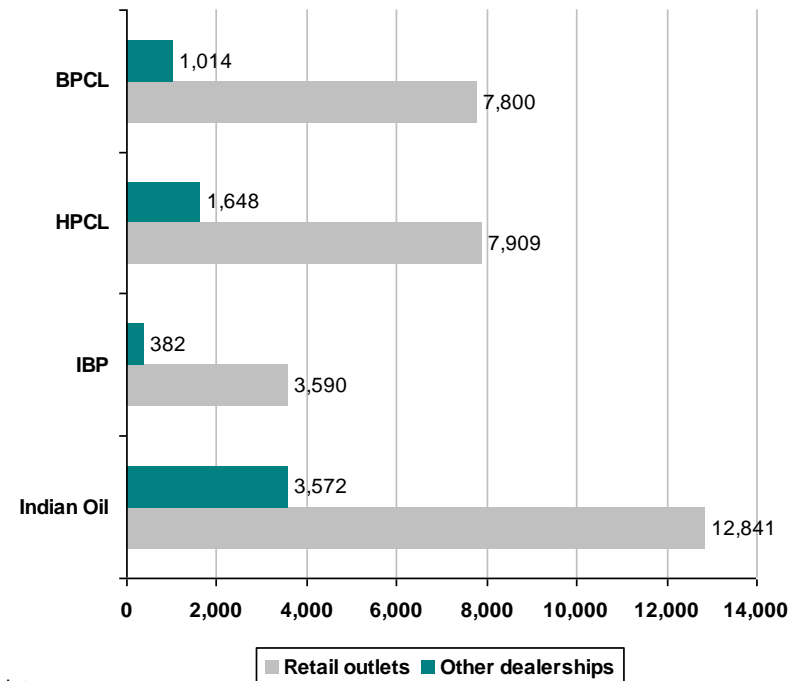
Automotive segment – distribution and marketing

- Retail element is segmented into two primary types of outlets:
 - **Petrol stations.** Dominated by the PSUs who only stock their own product. Is likely to change as private operators (Reliance, Essar, Shell) build out their networks
 - **Bazaar shops.** Independent shops in cities and towns selling a range of automotive-related services. Key route to market for commercial operators (Castrol distributes to over 70,000 outlets via its 270 distributors)

Marketing chain for commercial operators



No. of retail outlets by major player (2006)



Source: Heernet Analysis, Company data

Petrol stations – by state and union territory

| States | No. of retail outlets |
|-------------------|-----------------------|
| Andhra Pradesh | 2,904 |
| Arunachal Pradesh | 49 |
| Assam | 534 |
| Bihar | 1,328 |
| Chhattisgarh | 482 |
| Delhi | 398 |
| Goa | 89 |
| Gujarat | 2,098 |
| Haryana | 1,442 |
| Himachal Pradesh | 269 |
| Jammu & Kashmir | 350 |
| Jharkhand | 670 |
| Karnataka | 2,148 |
| Kerala | 1,600 |
| Madhya Pradesh | 1,665 |
| Maharashtra | 3,253 |
| Manipur | 55 |
| Meghalaya | 127 |
| Mizoram | 17 |
| Nagaland | 48 |
| Orissa | 891 |
| Punjab | 2,567 |
| Rajasthan | 2,328 |
| Sikkim | 28 |
| Tamil Nadu | 2,900 |
| Tripura | 39 |
| Uttar Pradesh | 4,213 |
| Uttarakhand | 356 |
| West Bengal | 1,674 |

| States | No. of retail outlets |
|----------------------|-----------------------|
| Union Territories | |
| Andaman & Nicobar | 5 |
| Chandigarh | 47 |
| Dadar & Nagar Haveli | 16 |
| Daman & Diu | 15 |
| Lakshadweep | 0 |
| Pondicherry | 91 |
| All India | 34,696 |

*April 2007 data

Automotive segment – key trends

- Changing nature of Indian automotive market is having a significant impact on the lubricants market:
 - Consumers are migrating from 2 wheelers to cars
 - Factors such as product quality and brand are increasingly important in the passenger vehicle market
 - Better quality vehicles (in both passenger and commercial segments) mean that the drain interval is increasing (reducing demand for lubricants)
- The consequences of this are that lubricant customers are increasingly focused on product quality and not on purchasing the cheapest, simplest lubricants
- This ‘quality focus’ is likely to benefit foreign and premium products which have invested in building a strong brand

Key trends in automotive lubricants

| Type | Trend |
|-------------------|---|
| Product | <ul style="list-style-type: none"> ▶ Transition to higher grade oils (multi-grade and API SF oils) ▶ API SF oils now account for over 50% of passenger car market ▶ In 2 wheeler market, 4-stroke oils replacing 2 stroke oils |
| Replacement cycle | <ul style="list-style-type: none"> ▶ Drain Interval is lengthening (from 2,000 km to 5,000 km) |
| Distribution | <ul style="list-style-type: none"> ▶ Bazaar shops continue to capture share from petrol stations ▶ New private petrol station operators present a new opportunity for commercial lubricant companies to penetrate that retail segment |
| OEM partnerships | <ul style="list-style-type: none"> ▶ Increasingly important ▶ New entrants (Toyota, Honda) have formed partnerships with local players |



ii) Industrial segment

Industrials lubricants – Market overview

- Industrials segment has strong growth prospects, as the Indian manufacturing and infrastructure sectors achieve double digit growth
- The major players in this market fall into three categories:
 - **PSUs.** In particular, Indian Oil have a presence in most product segments
 - **Niche, domestic players.** There are a number of Indian companies which typically focus on a small number of products (e.g. transformer oils)
 - **Foreign players.** A number of the major oil companies (Shell, ExxonMobil) have a strong presence across the range of industrial lubricants

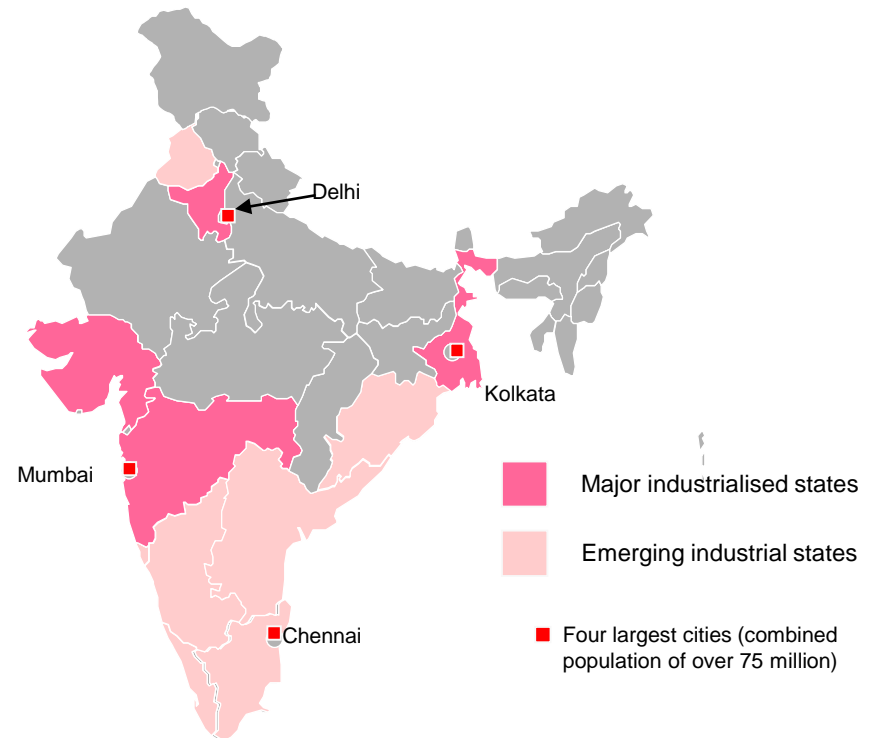
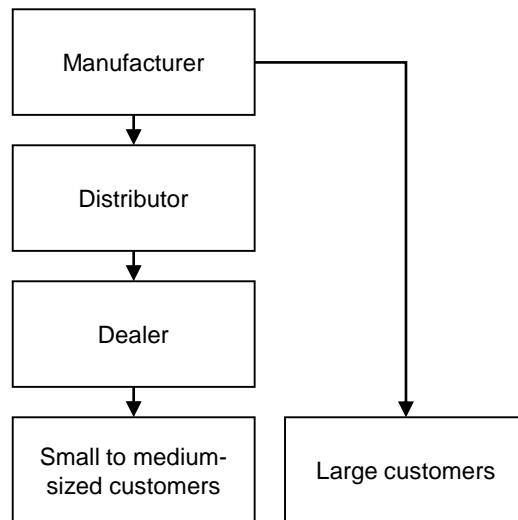
Key players in industrial lubricants

| Product segments | Domestic players | Major foreign players |
|--------------------|-----------------------------------|---|
| Metal working oils | Indian Oil, BPCL, HPCL | ExxonMobil, Kluber, Shell, Fuchs Petrolub, Castrol Industrial India |
| Greases | Indian Oil, BPCL, HPCL | ExxonMobil, Kluber, Shell, Fuchs Petrolub, Castrol Industrial India |
| Transformer oils | Apar Industries, Savita Chemicals | |
| Maintenance oils | Indian Oil, BPCL, HPCL | ExxonMobil, Kluber, Shell, Castrol Industrial India |
| Marine lubricants | Indian Oil, BPCL, HPCL | ExxonMobil, Shell, Castrol Industrial India |

Industrials lubricants – Distribution model

- PSUs and commercial operators sell directly (to large customers) and via third parties (to small customers)
- Distributors are typically allocated an exclusive territory, in which they can recruit local dealers
- The dealership market is fragmented with many small and medium-sized dealers
- The highest concentration of dealers and distributors is in the key industrial states
- Recruitment of dealerships is largely through manufacturers and distributors' own sales and marketing effort

Distribution model for industrial lubricants



Industrial lubricants - Marine lubricants

- India' market for marine lubricants is dominated by Indian Oil, Shell and Exxon
- The major players have a well developed distribution and marketing infrastructure based around India's major ports
- This sector will see strong growth as India's economic development has led to a substantial increase in shipping volumes and investment in new and existing ports

Major products and brands

| Player | Key brands | Activities |
|------------------|-------------------------------|--|
| Exxon Mobil | Mobilguard | Distributes in India in partnership with Marinelinks |
| Indian Oil | Servo Marine 10 and 20 series | Launched in 1998 Largest manufacturer in India |
| Shell lubricants | Shell | Distributes in India in partnership with Marinelinks |

Major sea ports (and lubricant stocking points)



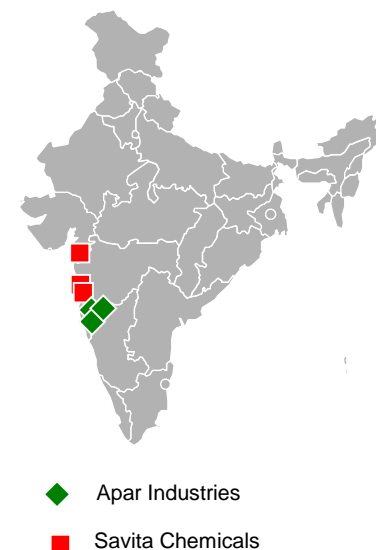
Industrial lubricants - Transformer oils

- Fast growing market as India invests heavily in its power generation and distribution infrastructure (100,000 MW of generation capacity to be added by 2012)
- Two major players:
 - Apar Industries. Has 50% market share. Also manufactures power equipment.
 - Savita Chemicals. Has 40% market share in this segment. Specialises in lubricants and greases.

Major players

| Player | Key brands | Activities |
|------------------|------------------|--|
| Savita Chemicals | TRANSOL, TECHNOL | <p>Technical collaboration with Idemitsu. It also sells Idemitsu's automotive and industrial (DAPHNE) range of lubricants in India</p> <p>3 facilities in West India</p> <p>Lubricant capacity: 216,000 kilolitres p.a.</p> <p>Petroleum jelly capacity: 3,000 MT p.a.</p> |
| Apar Industries | POWEROIL, Agip | <p>Manufactures conductors and associated lubricants</p> <p>Licensed ENI's Agip brand for India (will manufacture in partnership with Italian company Chematek) – December 2007</p> <p>Lubricant capacity: 155,000 MT p.a.</p> |

Location of facilities





2. Growth prospects and foreign investment

Growth prospects

| | Automotive | Industrial |
|----------------|---|--|
| Growth drivers | <p><u>Passenger vehicles</u></p> <ul style="list-style-type: none"> • Growth in sales (13% growth in 2008 to 866k passenger vehicles) • Growth in car households from 37 million to 45 million (2010) <p><u>Commercial vehicles</u></p> <ul style="list-style-type: none"> • Growth in sales (3.6% growth in 2008 to 340k vehicles) • Expect 9% annual growth from 2009 onwards • 10% growth in freight traffic in 2008(e) <p><u>2 wheelers</u></p> <ul style="list-style-type: none"> • Sales of 5.5 million (7% decline in 2008) • Customers are migrating to cars | <ul style="list-style-type: none"> • Strong growth in key power and transport infrastructure should spur demand for speciality lubricants <p><u>Power</u></p> <ul style="list-style-type: none"> • 197,000 MW of generating capacity by 2012 <p><u>Shipping</u></p> <ul style="list-style-type: none"> • 9.5% growth in shipping in 2007 across all Indian ports <p><u>Aviation</u></p> <ul style="list-style-type: none"> • Very strong growth in domestic aviation |
| Implications | <ul style="list-style-type: none"> • Healthy growth in demand • Particularly for premium engine oils (because consumers are buying more expensive cars and want a better quality lubricant) • Commercial vehicle market is in a recovery phase and demand for high end lubricants should grow over the next 5 years • 2 wheeler market is less attractive, though premium end is growing and presents good opportunities in major cities | <ul style="list-style-type: none"> • Good, long term opportunities for speciality lubricant manufacturers |

Foreign investment in the lubricant's industry

Strong presence of foreign companies

- Since liberalisation in 1993, many foreign operators have entered the market, largely through distribution partnerships with local players:
 - The foreign players have provided access to product, brands, technology and expertise
 - Local players have provided access to distribution and customers
- There are now no restrictions on foreign ownership, so some players have taken full ownership of their operations

Automotive segment

- This segment is competitive, with some well entrenched players
- Key barriers to entry for new entrants will be gaining access to wide distribution and building brand recognition
- Opportunities may exist in premium end of market

Industrials segment

- Better prospects than the automotive segment
- Most foreign players have entered the market through local partnerships
- Some foreign players are active here, but most segments (aviation, marine, power) have sufficient growth prospects that new players could gain a strong foothold

Investments by foreign players

| Player | Country | Segment | Partner | Activities |
|----------------|----------------|-------------------|-------------------|---|
| BP | UK | Auto / Industrial | Castrol India | Owns 71% stake in Castrol India |
| Shell | Netherlands/UK | Automotive | BPCL | Established joint venture (Bharat Shell) in 1993 In 2007, Shell announced purchase of BPCL's stake |
| ExxonMobil | USA | Auto / Industrial | HPCL | Entered market in partnership with HPCL in 1993, but operation is now 100% owned subsidiary Has entered industrial segment and keen to grow market share (currently markets only 150 out of 700 lube products) |
| Chevron | USA | Auto / Industrial | Madras Refineries | Established joint venture with Madras Refineries (owns 50% stake) Has 2 blending plants (Chennai and Taloja, near Mumbai) and its own dealer network |
| TotalFina | France | Automotive | NA | Selling through Reliance's retail outlets (2005) |
| Agip / ENI | Italy | Automotive | Apar Industries | Launched partnership in late 2007 (Chematek is also partner) Plan to blend and market Agip automotive lubricants Blending to be done at Rabale facility near Mumbai (1,500 MT in 2008) |
| Ashland | USA | Automotive | Cummins India | Market the Valvoline brand |
| Fuchs Petrolub | Germany | Auto / Industrial | Balmer Lawrie | Markets a range of premium automotive and industrial products |
| Idemitsu | Japan | Auto / Industrial | Savita Chemicals | Partnership was formed in 1994 Savita is local distributor for lubricants and greases |
| Petronas | Malaysia | Automotive | NA | Syntium brand Italian manufacturer, FL Selenia was acquired by Petronas in 2007 |

Market attractiveness for new entrants

| Segment | Sub-segment | Current size | Existing foreign presence | Growth prospects | Comments |
|-------------------|----------------------------|--------------|---------------------------|------------------|---|
| Automotive | Low quality, simple blends | | | | Poor prospects and declining demand Dominated by local brands |
| | Premium, multi-grade | | | | Good prospects particularly for well established foreign brands Foreign technology is an asset Competitive, but good growth prospects as growth in vehicles sales is robust |
| Industrial | Power | | | | High growth prospects Attractive segment Foreign technology is an asset |
| | Marine & aviation | | | | High growth prospects Attractive segment as shipping and aviation sectors grow rapidly |
| | Other | | | | Strong industrial growth is increasing demand for most industrial lubricants |

High/Large
 Small/Low

Key success factors for new entrants

- Identify niche segments with strong growth potential, and where new entrants can add value in terms of brand, scale, technology and expertise
- **Develop an effective distribution strategy:**
 - Likely to involve a local partner with access to customers (e.g. in the power sector, could be an equipment manufacturer)
 - Option does exist to establish own distribution operation – but challenging in a market like India
 - Some foreign entrants (e.g. Shell) entered through a partnership and then acquired the partner's stake
 - Foreign entrants need to be extremely careful about the choice of partner – as India has a poor track record for successful partnerships between local companies and foreign entrants
- **Branding is increasingly important in automotive segment:**
 - In automotive segment, significant investment in brand building is required. Most producers have invested heavily in marketing and some have begun to offer a wide range of related services (e.g. service centres and garages)
 - This is a competitive market, where foreign and domestic players have been investing in distribution and marketing for at least 14 years



3. Company profiles

Apar Industries

Business description

- ▶ Established in 1958.
- ▶ Manufactures specialty oils and lubricants in India.
- ▶ Three divisions: Transformer and other specialty oils; conductors; and polymers.
- ▶ The transformer and other specialty oils division manufactures a range of specialty oils, which include transformer oils, light/heavy liquid paraffin's, white oils, rubber processing/extender oils, ink oils, industrial/automotive oils, and lubricants.
- ▶ Operates 5 manufacturing plants (Gujarat and Dadar & Nagar Haveli).
- ▶ Manufactures both automotive and Industrial lubricants.
- ▶ Markets lubricant products under the brand name of "POWER".

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|-------------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 8,424.2 | 10,955.2 | 14,730.9 | 32.2 |
| <i>% change</i> | 24.9 | 30.0 | 34.5 | |
| EBITDA | 567.2 | 811.8 | 1,076.1 | 37.7 |
| <i>% change</i> | 25.2 | 43.1 | 32.6 | |
| <i>% Margin</i> | 6.7 | 7.4 | 7.3 | |
| Net Income | 301.9 | 399.7 | 459.7 | 23.4 |
| <i>% change</i> | 2.5 | 32.4 | 15.0 | |
| <i>% Margin</i> | 3.6 | 3.1 | 3.6 | |

Recent developments

| Date | Development |
|----------------|--|
| February, 2008 | Completed the sale of its polymer division to Eliokem India for Rs. 1,100 million. |
| | Entered into agreement with Uniflex Cables to buy 42% stake in company. |
| December, 2007 | Signed a technology and license agreement with Eni, an Italian energy player for marketing of lubricants |

Partnerships

| International Players | Description |
|------------------------------|--|
| ENI | Entered into license and technical know-how agreement with ENI of Italy for the manufacturing of "AGIP" brand of automotive lubricant. |
| Chematek | Formed a 50:50 joint venture with Chematek for the marketing of "AGIP" brand of automotive lubricant. |

Bharat Petroleum

Business description

- ▶ Established in 1952.
- ▶ State-owned company
- ▶ Engaged in refining, storing, marketing and distributing petroleum products.
- ▶ Operates refineries at Mumbai and Kochi with a capacity of 12 million metric tons (MMT) and 7.5 MMT per annum.
- ▶ Has six strategic business units (Refinery, Retail, Industrial and commercial, lubricants, Aviation and LPG).

Recent developments

| <u>Date</u> | <u>Development</u> |
|---------------|--|
| February 2008 | Entered bio-diesel manufacturing. |
| December 2007 | Planned partnership with Nippon Oil to develop polymer electrolyte fuel cells. |
| November 2007 | Sold 49% stake in lubricant business, Bharat Shell to Shell for Rs. 1,524 million. |

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|-----------------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 594,284.0 | 728,259.0 | 988,711.0 | 29.0 |
| % change | 22.0 | 22.5 | 35.8 | |
| EBITDA | 20,921.0 | 10,038.0 | 49,781.0 | 54.3 |
| % change | -36.6 | -52.0 | 395.9 | |
| % Margin | 3.5 | 1.4 | 5.0 | |
| Net Income | 9,658.0 | 1,298.0 | 23,502.0 | 56.0 |
| % change | -43.0 | -86.6 | 1710.6 | |
| % Margin | 46.2 | 12.9 | 47.2 | |

Presence in lubricant market

- ▶ Manufactures both automotive and industrial lubricants.
- ▶ Operates 3 refineries located at Mumbai, Kochi and Numaligarh with total production capacity of approx. 20 MMT.
- ▶ Production capacity of 181,000 MT p.a. for lubricants (March, 2007).
- ▶ Produced 116,637 metric ton of lubricants (2007)
- ▶ Distribution network of 7,537 retail outlets.
- ▶ Lubricant products marketed under the MAK brand.

Castrol India

Business description

- ▶ Castrol India Limited, formed in 1910 and a subsidiary of Castrol Limited UK, is the one of leading manufacturer of a range of automotive and industrial lubricants in India.
- ▶ BP owns 70.92% of the company.
- ▶ Markets its automotive lubricants under the 'Castrol' and 'BP' brand names
- ▶ Major brands are Castrol Edge, Castrol Magnatec, Castrol GTX, Castrol GTD, Castrol Power 1 JettX, Castrol 2T, Castrol active etc.
- ▶ Has a network of 270 distributors, servicing approximately 70,000 retail outlets.
- ▶ Offers diesel engine oils; gasoline engine oils, 2-stroke and 4-stroke engine oils as well as a range of ancillary products, including brake fluids, lubricating oils, and greases.
- ▶ Production capacity of approximately 428,813 Kilo liter per annum (2006).
- ▶ 5 manufacturing plants (Patalganga, Silvassa, Tondiarpet, Paharpur).
- ▶ It has market share (in retail segment) of approximately 28% in 2006.

Summary financials

| Rs millions; y/e December | 2005 | 2006 | 2007 | CAGR (%) |
|----------------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 14,504.5 | 17,867.9 | 19,231.0 | 13.2 |
| <i>% change</i> | 9.3 | 23.2 | 7.6 | |
| EBITDA | 2,317.5 | 2,543.6 | 3,644.1 | 16.5 |
| <i>% change</i> | 0.6 | 9.8 | 43.3 | |
| <i>% Margin</i> | 16.0 | 14.2 | 18.9 | |
| Net Income | 1,468.1 | 1,544.9 | 2,184.3 | 19.7 |
| <i>% change</i> | 15.2 | 5.2 | 41.4 | |
| <i>% Margin</i> | 10.1 | 8.6 | 11.4 | |

Partnerships

| Partner | Relationship |
|---------------------|--|
| TATA Cummins Ltd. | Supplies Castrol oil to India's largest engine manufacturer. |
| Reliance India Ltd. | Supplies to Reliance petrol stations |
| Essar Oil Ltd. | Sale of Castrol lubricants through Essar Oil petrol stations |

Gulf Oil

Business description

- ▶ Gulf Oil India is part of the Hinduja Group
- ▶ After the merger of Gulf Oil India with IDL Industries in 2002, company changed its name as Gulf Oil Corporation.
- ▶ Manufactures explosives, lubricants, and specialty chemicals from its 4 plants (Silvassa, Hyderabad, Rourkela and Singrauli).
- ▶ Exports to Indonesia, Maldives, Nepal, Ghana, Madagascar, Myanmar and Dubai.

Summary financials

| Rs millions; y/e March | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>CAGR (%)</u> |
|---------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 4546.3 | 4828.0 | 6315.9 | 17.9 |
| <i>% change</i> | 12.1 | 6.2 | 30.8 | |
| EBITDA | 383.1 | 442.5 | 422.6 | 5.0 |
| <i>% change</i> | -19.0 | 15.5 | -4.5 | |
| <i>% Margin</i> | 8.4 | 9.2 | 6.7 | |
| Net Income | 200.3 | 227.9 | 8.5 | -79.4 |
| <i>% change</i> | -12.6 | 13.8 | -96.3 | |
| <i>% Margin</i> | 4.4 | 4.7 | 0.1 | |

Presence in Lubricant market

- ▶ Manufactures both automotive and Industrial lubricants.
- ▶ Sells its lubricant products under the brand of "GULF".
- ▶ Market share of approximately less than 3% in retail segment (2006).
- ▶ Multi-grade lubricant products (XHD 20W40 , Multi G and Super Fleet) account for more than 50 % of sales

Hindustan Petroleum

Business description

- ▶ Established in 1974, is one of the largest integrated oil refining and marketing company in India.
- ▶ State-owned company
- ▶ Operates 2 refineries (West coast-Mumbai, East coast-Visakhapatnam) with combined refining capacity of 13 million metric ton.
- ▶ Operates 3,515 retail outlets

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|-------------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 601,229.0 | 713,663.7 | 946,806.3 | 25.5 |
| <i>% change</i> | 15.9 | 18.7 | 32.7 | |
| EBITDA | 23,818.3 | 11,340.7 | 34,031.1 | 19.5 |
| <i>% change</i> | -34.6 | -52.4 | 200.1 | |
| <i>% Margin</i> | 4.0 | 1.6 | 3.6 | |
| Net Income | 12,773.3 | 4,056.3 | 16,740.2 | 14.5 |
| <i>% change</i> | -32.9 | -68.2 | 312.7 | |
| <i>% Margin</i> | 53.6 | 35.8 | 49.2 | |

Recent developments

| <u>Date</u> | <u>Development</u> |
|--------------------|---|
| January 2008 | Agreement BPCL to construct sewage treatment plants. |
| January 2008 | Agreement with Bihar government to run sugar mills in Bihar. |
| November 2007 | Proposed investment of US\$ 2.5 billion for expansion of present capacity. |
| October 2007 | Joint venture with the Mittal Group to explore prospects for refinery and petrochemicals projects in Visakhapatnam. |

Presence in Lubricant market

- ▶ Produces both automotive and industrial lubricants.
- ▶ Operates largest lubricant refinery with production capacity of 335,000 MT p.a.
- ▶ Produced approx. 155,000 MT (March, 2007).
- ▶ Markets lubricant products through 7,909 retail outlets.
- ▶ Key lubricant products include HP Laal Ghoda 20W-40, HP HYlub Milcy, HP Milcy power 15W-40.

Indian Oil

Business description

- ▶ Established in 1964 through the merger of Indian Oil Company Ltd and Indian Refineries.
- ▶ State-owned
- ▶ Operates 10 of India's 18 refineries with a combined refining capacity of 54.2 million tons per annum (one million barrels per day).
- ▶ Operates a network of 32,500 retail outlets, 170 bulk storage terminals and depots, 101 aviation fuel stations and 89 Indane LPG bottling plants.
- ▶ Has joint ventures with Balmer Lawrie, Oil tanking GmbH, Lubrizol Corp, Petronas, Gaz de France International, HPCL, BPCL, Skytanking GmbH etc.

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|------------------------|-------------|-------------|-------------|----------|
| Revenues | 1,397,829.5 | 1,763,397.4 | 2,026,927.1 | 20.4 |
| % change | 17.9 | 26.2 | 14.9 | |
| EBITDA | 87,217.0 | 99,314.4 | 144,462.8 | 28.7 |
| % change | -27.4 | 13.9 | 45.5 | |
| % Margin | 6.2 | 5.6 | 7.1 | |
| Net Income | 48,913.8 | 49,151.2 | 81,793.5 | 2.3 |
| % change | -30.2 | 0.5 | 66.4 | |
| % Margin | 3.5 | 2.8 | 4.0 | |

Recent developments

| Date | Development |
|---------------|--|
| February 2008 | Shareholder approval for merger with BRPL |
| " | Plan to set up 15 million ton capacity refinery at, Orissa. |
| " | Partnership with South African company Sasol to synthesize automotive oil from coal. |
| " | Agreement with Maruti Suzuki India for marketing of Maruti Genuine Oil (MGO). |
| " | Launch of marine lubricant products in Dubai. |

Partnership

| Players | Relationship |
|---------------------|--|
| NYCO SA, France, | Avi-Oil India Ltd., joint venture company engaged in manufacturing of specialty lubricants. |
| Balmer Lawrie & Co. | Joint venture in oil recovery services. |
| Lubrizol Inc. | Lubrizol India Pvt. Ltd., an joint venture company engaged in manufacturing of lube additives. |

Savita Chemicals

Business description

- ▶ Established in 1961
- ▶ Engaged in lubricant manufacturing and wind power generation.
- ▶ Manufactures engine oils, transformer oil, white oil, waxes, liquid paraffin Emulsifier.
- ▶ Has 40% market share in transformer oil
- ▶ Has 2 manufacturing plants (Navi Mumbai, Silvassa).
- ▶ Is present in both automotive and Industrial lubricant markets.

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|---------------------------|--------|--------|--------|----------|
| Revenues | 4830.6 | 6065.4 | 8140.3 | 21 |
| % change | 6 | 26 | 34 | |
| EBITDA | 994.3 | 1212 | 1377.5 | 15 |
| % change | 10 | 22 | 14 | |
| % Margin | 20.6 | 20.0 | 16.9 | |
| Net Income | 295.3 | 374.4 | 474.7 | 19 |
| % change | 5 | 27 | 27 | |
| % Margin | 6.1 | 6.2 | 5.8 | |

Recent developments

| Date | Development |
|--------------|---|
| 2006 | Commenced operation of 4 wind power project at Maharashtra. |
| October 2006 | Extended agreement with Idemitsu (for upto 10 years) |
| May 2005 | Reappointed CV Alexander as full time director |
| April 2005 | Established fully owned subsidiary in the UAE |

Partnership

| Domestic Players | Description |
|-----------------------|--|
| Honda seal | OEM partnership |
| Mahindra and Mahindra | OEM partnership |
| Kinetic Honda | OEM partnership. |
| International Players | |
| Toyota | OEM partnership. |
| Idemitsu | Launched Idemitsu lubricant products in India. |

Tide Water

Business description

- ▶ Tide water (oil) limited is part of the engineering group – the Andrew Yule group
- ▶ Established in 1928.
- ▶ Produces lubricants for automobiles - engine oils, two wheeler lubricants, gear and transmission oils and greases
- ▶ Has 5 manufacturing plants in India.

Summary financials

| Rs millions; y/e March | 2005 | 2006 | 2007 | CAGR (%) |
|-------------------------------|-------------|-------------|-------------|-----------------|
| Revenues | 2,218.1 | 2,587.9 | 3,618.7 | 27.7 |
| % change | <i>n.a.</i> | 16.7 | 39.8 | |
| EBITDA | 129.1 | 136.1 | 182.3 | 18.8 |
| % change | <i>n.a.</i> | 5.5 | 33.9 | |
| % Margin | 5.8 | 5.3 | 5.0 | |
| Net Income | 73.4 | 75.3 | 89.7 | 10.5 |
| % change | <i>n.a.</i> | 2.5 | 19.2 | |
| % Margin | 3.3 | 2.9 | 2.5 | |

Partnerships

| Partner | Relationship |
|----------------|---|
| Nippon Oil | Technical collaboration to produce “ENEOS” Oil. |

Presence in Lubricant market

- ▶ One of leading player in manufacturing and marketing of different lubricant products.
- ▶ Manufactures both automotive and industrial lubricants.
- ▶ Installed production capacity for synthetic lubricants of 8,700 kilo litres (March, 2007).
- ▶ Markets its lubricant products under the brand name of “Veedol” and “ENEOS” (the latter is a Nippon Oil brand).
- ▶ Has market share of approx. 7% in retail segment (2006).
- ▶ Has 5 manufacturing plants (Faridabad, Howrah, Silvassa, Mumbai and Chennai).