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Industry
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Date
15 March 2017

Asia
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F.I.T.T. for investors

Round Two – still much more to come

Unlocking value from retail and marketing

Round one of the sector reforms since 2014 has raised earnings by more than 150%, but there is still USD50bn of potential value to be unlocked. Round two should bring both a 40%+ expansion in operating EBITDA and a significant re-rating as oil marketing companies (OMCs) begin to capitalize on their networks of pipelines and retail properties. These assets cannot be replicated but have yet to deliver returns to match their oligopoly positions. Changes over the next three years should feature upward margin shifts on accelerating volume growth and a 17%-80% jump in cash flow. HPCL, BPCL and IOC's valuations could more than double by FY20, and we raise our 12-month TPs by 16-21%.

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As marketing gets its due, OMC stocks could more than double over FY17-20

A re-rating of the marketing business and commissioning of refining capacity expansions could mean potential stock price appreciation of up to 117% for OMCs (IOC, BPCL and HPCL) over the next three years. The operating cash flows of OMCs will likely increase by up to 80%. The FCF yields of IOC and BPCL should improve by at least 280bps over FY17-20. Operating cash flows will likely be driven by rising refining margins, an improvement in marketing margins and higher volumes.

Raising retail returns

Until now, there has been limited visibility on the returns in the marketing and retail operations in the sector, and thus only a minor value of 3.8-4.8x EV/EBITDA has been attributed to these assets. Listed peers are trading up to 2.7x higher, while transactions in the sector such as BP-Woolworths and Vitol-Petrol Ofisi have been priced at multiples (EV/EBITDA, EV/EBIT) of 8x-5x. Considering their near monopoly in the retail market – unparalleled in any market of reasonable size globally – and the vast 55,000+ strong retail outlet network, rivalled in the region only by Sinopec, a re-rating to 8x on enhanced yields is easily achievable, in our view. Moreover, these are non-cyclical businesses, so our target prices (TPs) are still conservative.

Raising TPs; factoring in higher marketing business valuations

The OMCs' marketing operation – especially retailing – is a non-cyclical, steady, growing oligopolistic business. OMCs enjoy a 95%+ market share in the fuel retailing business, with the lowest cost logistics backbone, which should ensure a sustainable 90% market share. With the price deregulation of diesel, almost all the risk of change in oil prices has been passed on to the consumer, as the OMCs are now free to change retail prices in line with changes in international prices. With a reduced risk of changes in oil prices affecting the fortunes of OMCs, we believe the marketing operation deserves a higher multiple – closer to regional peers' marketing segments. We value the OMCs' refining at 6x FY18E EV/EBITDA and marketing at 8x EV/EBITDA, vs. 6x EV/EBITDA for the combined refining and marketing business earlier. We have raised our TP for HPCL by 19%, to INR700, for BPCL by 16%, to INR870, and for IOC by 21%, to INR490. The OMC stocks offer upside potential of up to 40% to our TPs and 100% over the next three years.

Key Changes

Company	Target Price	Rating
BPCL.BO	750.00 to 870.00(INR)	-
HPCL.BO	590.00 to 700.00(INR)	-
IOC.BO	405.00 to 490.00(INR)	-

Source: Deutsche Bank

Top picks

BPCL (BPCL.BO),INR635.95	Buy
HPCL (HPCL.BO),INR516.70	Buy
IOC (IOC.BO),INR374.25	Buy

Source: Deutsche Bank

Companies Featured

BPCL (BPCL.BO),INR635.95			Buy
	2016A	2017E	2018E
P/E (x)	7.5	10.0	8.4
EV/EBITDA (x)	5.5	7.2	6.0
Price/book (x)	2.3	2.7	2.2

HPCL (HPCL.BO),INR516.70			Buy
	2016A	2017E	2018E
P/E (x)	5.2	8.9	8.7
EV/EBITDA (x)	4.9	5.8	5.6
Price/book (x)	1.5	2.4	2.0

IOC (IOC.BO),INR374.25			Buy
	2016A	2017E	2018E
P/E (x)	8.0	9.6	8.7
EV/EBITDA (x)	5.9	6.4	5.9
Price/book (x)	1.2	2.0	1.7

Source: Deutsche Bank

Valuation and risks

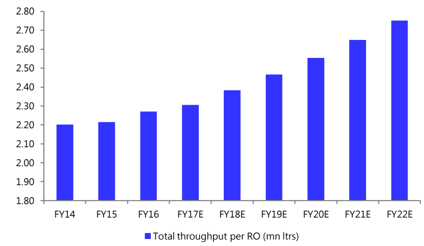
We value OMCs on EV/EBITDA and add the value of investments at a 15% discount to market prices. Key risks are a higher oil subsidy burden or a sharp increase in the crude oil price.

Executive summary

Rise in throughput to improve profitability, retail RoE

Throughput per retail outlet for OMCs has been rising over the past three years but it still is lower (by more than 27%) than in other markets such as China, the US, Australia and NZ. In this report, we argue that industry reform will accelerate this process, significantly improving the economics of these divisions. Over the next five years, assuming an auto fuel volume growth CAGR of 7%, we estimate throughput per RO could reach 2.8m litres, from 2.3m litres in FY17. Higher throughput per RO will likely improve profitability and RoE for OMCs' retail business. The impact upon valuations has yet to be properly reflected in share prices, and we raise TPs across the sector and re-iterate our Buy recommendations on IOC, BPCL and HPCL. We also introduce long-term valuation TPs for the sector.

Figure 1: Throughput per RO



Source: Company data, Deutsche Bank estimates

Logistics moat growing wider; helps sustain 90%+ market share

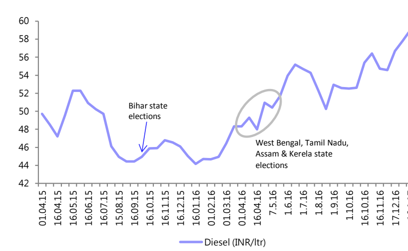
The pan-India product pipeline network (the cheapest mode of petroleum product transport), widely dispersed refineries and OMCs' product-sharing agreements should sustain the competitive advantages enjoyed by the OMCs in the Indian petroleum product market. Pipelines and product-sharing agreements ensure that other competitors are at a severe cost disadvantage, as they would need to move their product by road. We estimate that these OMCs' competitors can be a serious threat to their market share only within 500km of their refineries; i.e., only in the western region of the country.

Why are we confident of OMCs' retail pricing freedom?

Although there is understandable scepticism given the government's track record, our confidence on the implementation of free pricing for petroleum products stems from the following measures that the government has already taken:

- The extinguishing of the diesel subsidy in October 2014 and the revision of prices in line with changes in international prices without any government intervention;
- The increase in LPG and kerosene prices each month since June 2016;
- Increases in the auto fuel price even during elections and in times of sharp price increases for crude;
- The aggressive implementation of Direct Benefit Transfer (DBT) to LPG and kerosene to contain subsidies.

Figure 2: Diesel prices raised even during elections



Source: PPAC, Deutsche Bank

FCF yield improves by up to 280 bps over FY17-20

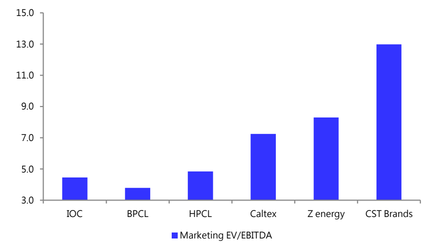
Operating cash flow for OMCs will likely be driven by improvement in marketing margins, rising refining margins and higher volumes. Over FY17-20, the FCF yield of state-owned OMCs should improve dramatically, by more than 280bps for IOC and BPCL. HPCL, with capex starting from FY18, will likely see its FCF yield decline by 130 bps. We expect the OMCs to generate robust free cash flows of about USD10bn over FY18-22E. We also estimate net debt/equity of OMCs to decrease further over FY16-22E – HPCL from 1.6x in FY16 to 0.6x in FY22, IOC from 0.6x in FY16 to 0.2x in FY22, and BPCL from 0.7x in FY16 to 0.1x in FY22.

Figure 3: FCF yield

	FY17E	FY20E
IOC	-0.8%	4.9%
BPCL	1.5%	4.3%
HPCL	9.8%	8.5%

Source: Deutsche Bank estimates

Figure 4: Marketing EV/EBITDA

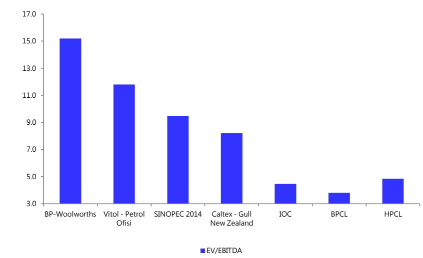


Source: Deutsche Bank

Sector valuations: deals struck at much higher valuations

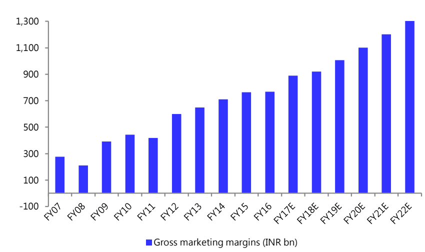
Sinopec sold a 30% stake in its marketing (fuel and non-fuel) arm – Sinopec Marketing – in 2015, at an equity value of USD58bn. PTT has announced its intention to list its marketing arm, PTT OR. Caltex and BP were involved in buying retail operations. All of these deals were concluded at valuations at sizable premiums to the current valuations of the OMCs, underscoring the attractiveness of the marketing business, especially retailing. We estimate that the OMCs' marketing businesses are trading at EV/EBITDA of 3.8x-4.8x FY18E. Even if we compare the valuations with marketing peers like Caltex, Z Energy or CST brands, the marketing business of HPCL is trading at a discount of 34%-63%, BPCL at 49%-71% and IOCL at 40%-66%.

Figure 5: EV/EBITDA of recent deals



Source: Company data, Deutsche Bank

Figure 6: OMCs' gross marketing margins to rise



Source: Company data, Deutsche Bank estimates

OMC stocks could double over FY17-20

OMC stocks have potential upside of up to 117% after factoring in the benefit of refinery capacity expansions (for BPCL and IOC) and a net marketing margin increase on diesel and gasoline of 40% from current levels. With the increase in investor confidence about the free pricing of petroleum products and consistent robust performance from the marketing segment, we anticipate a re-rating of the OMCs' marketing arms. We value OMCs' refining business at 6x EV/EBITDA and marketing at 8x EV/EBITDA.

Figure 7: OMC stocks can double

	CMP	Mar'21 TP	Upside
IOC	372	730	96.5%
BPCL	622	1310	110.5%
HPCL	513	1115	117.4%

Source: Deutsche Bank

Raising TPs on higher multiples for marketing business

The OMCs' marketing business – especially retailing – is a non-cyclical, steady, growing oligopolistic business. OMCs enjoy 95%+ market share in the fuel retailing business, with the lowest-cost logistics backbone, which should ensure sustainable 90% market share. With the price deregulation of diesel, almost all the risk of change in oil prices has been passed on to the consumer, as the OMCs are now free to change retail prices in line with changes in international prices.

With a reduced risk of changes in oil prices affecting the fortunes of OMCs, we believe the marketing business deserves a higher multiple, closer to regional peers' marketing segments. We value OMCs' refining at 6x EV/EBITDA and marketing at 8x EV/EBITDA, vs. 6x EV/EBITDA for the combined refining and marketing business. We have raised our TP for HPCL by 19%, to INR700, for BPCL by 16%, to INR870, and for IOC by 21%, to INR490. OMC stocks offer upside potential of up to 40% to our TPs and 100% over the next three years.

Figure 8: Earnings change summary

	Revised TP	Changes		
		FY18E EPS	FY19E EPS	TP
IOC	490	5.0%	4.3%	21.0%
BPCL	870	0.5%	5.9%	16.0%
HPCL	700	-1.1%	2.0%	18.6%

Source: Deutsche Bank estimates

Figure 9: Refining and Marketing valuations

	Rating	Mkt Cur	LTP	TP	P/E		EV/EBITDA		P/BV		RoE (%)		Mkt Cap
			10-Mar		CY16E	CY17E	CY16E	CY17E	CY16E	CY17E	CY16E	CY17E	(US$bn)
Caltex	Buy	AUD	29	35	14.3	11.5	9.0	6.7	2.9	2.4	19.4	20.9	5.7
SK Innovation*	NA	KRW	152,000	NA	8.6	7.1	4.6	4.2	0.8	0.8	9.9	11.2	12.2
S-Oil Corp*	NA	KRW	87,100	NA	7.8	8.1	9.6	7.3	1.5	1.4	21.7	17.9	8.5
GS Holdings*	NA	KRW	54,200	NA	6.3	6.4	7.2	6.9	0.5	0.6	9.3	10.1	4.4
Thai Oil PCL	Hold	THB	76	65	9.2	11.7	5.7	5.9	1.5	1.4	17.4	12.5	4.4
IRPC PCL	Buy	THB	5	6	9.8	8.8	7.0	6.1	1.2	1.1	13.0	13.3	2.9
Bangchak	Hold	THB	33	28	8.5	7.0	7.2	6.2	1.2	1.1	14.3	15.7	1.3
SPC - H	Buy	HKD	4	6	7.4	7.1	6.6	6.2	1.8	1.6	26.3	23.5	1.9
Z Energy	Hold	NZD	7	7	19.7	14.4	10.6	8.6	4.8	4.3	22.2	30.8	2.0
CST Brands*	NA	USD	48	NA	31.8	26.3	14.4	13.0	5.1	3.1	12.7	14.7	48
RIL	Buy	INR	1,278	1,290	13.8	12.2	12.8	10.4	1.5	1.4	11.7	12.0	62.2
IOC	**Buy**	**INR**	**372**	**490**	**9.5**	**8.7**	**6.3**	**5.9**	**2.0**	**1.7**	**22.8**	**21.0**	**27.1**
BPCL	**Buy**	**INR**	**622**	**870**	**9.8**	**8.2**	**7.0**	**5.9**	**2.6**	**2.2**	**29.5**	**28.7**	**13.5**
HPCL	**Buy**	**INR**	**513**	**700**	**8.8**	**8.6**	**5.7**	**5.6**	**2.4**	**2.0**	**30.2**	**25.1**	**7.8**
Average					**11.7**	**10.4**	**9.3**	**7.9**	**1.8**	**1.6**	**17.2**	**16.7**	

*Source: Deutsche Bank estimates, Note: CY16 is equivalent to FY17 (March-end) for Indian companies, * Bloomberg Finance LP Consensus*

Outlook, valuations and risks

Outlook

IOC

We estimate 38% earnings growth over FY17-20E, driven by higher marketing margins and higher contribution from the refining segment. An INR0.5/litre expansion in the auto fuel marketing margin would increase IOC's earnings by about 11%.

BPCL

BPCL is set to expand its refining capacity by 26% in the next three years, which we estimate will drive a 7% CAGR in refining throughput over FY17-20E. Higher refining volumes combined with rising marketing margins on auto fuels should help drive earnings growth of 55% over FY17-20E.

HPCL

We estimate 21% earnings growth over FY17-20E driven by higher marketing margin and higher contribution from refining segment. An INR0.5/litre expansion in auto fuel marketing margin would increase HPCL's earnings by about 17%.

Valuation

We value IOC's refining and petchem business at 6x FY18E EV/EBITDA and its marketing business at 8x FY18E EV/EBITDA. We also add the value of investments at a 15% discount to the market price/book value.

We value BPCL's refining business at 6x FY18E EV/EBITDA and its marketing business at 8x FY18E EV/EBITDA. We value BPCL's 10% stake in Mozambique at an EV/boe of USD1.8/boe with prospective resources of 75tcf. We also value BPCL's listed investments on an equity basis at the market price with a 15% holding company discount

We value HPCL's refining business at 6x FY18E EV/EBITDA and its marketing business at 8x FY18E EV/EBITDA. We also add the value of investments at a 15% discount to the market price/book value

Risks

Key risks include surprises in government policy such as reviewing the decision to deregulate diesel and the imposition of oil subsidy sharing on OMCs (IOC, BPCL & HPCL). Lower-than-expected gross refining margins could also result in earnings disappointment.

Any delay in 1] commissioning of its Kochi refinery expansion and 2] monetisation and production start-up of its Mozambique gas discovery, would also affect BPCL negatively.

Any capex overrun and / or delay in capacity expansion at Vizag refinery would adversely impact HPCL.

A delay in capacity ramp-up at its new Paradip refinery would affect IOC adversely.

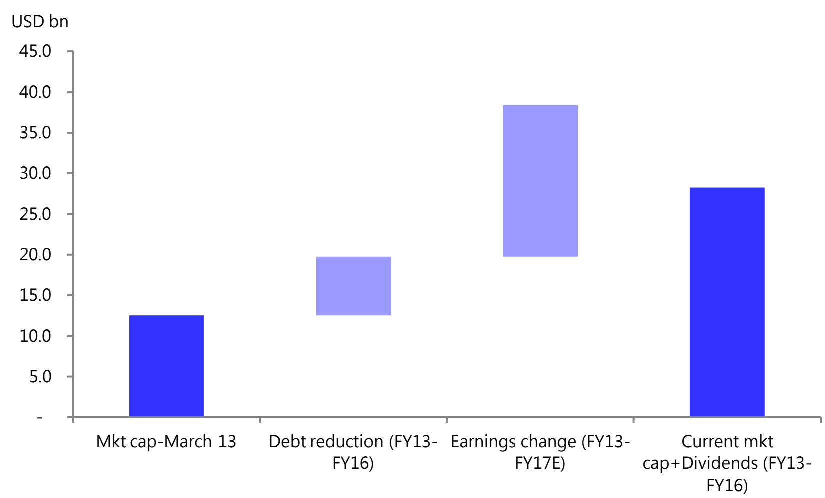
Consumer franchise or commodity companies?

Oil Marketing Companies – Near monopolistic retailing franchise not recognized

The OMC stocks have risen 3.5x to 9.1x, from the trough of August/September 2013 to March 2017. The majority of this stock price increase can be explained by the earnings growth and the rest by debt reduction. During this period (FY13-FY16), earnings for OMCs have risen 2.5x to 10x, whereas debt has fallen by USD1.7bn-7.2bn or by 34% to 172% of FY13 market cap (i.e. before diesel deregulation).

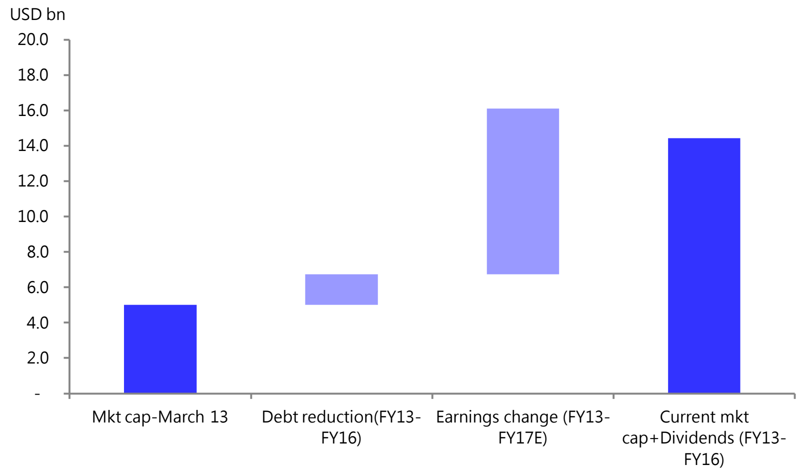
Over this period, these stocks have in-fact de-rated, i.e. valuations have fallen despite improved visibility and earnings quality. EV/EBITDA and PER valuations for HPCL, BPCL and IOC have declined by 13% to 51% over August /Sep 2013 to March 2017. The Street continues to value the OMCs as pure refiners, without giving the companies any credit for their strong near-monopolistic retailing franchises.

Figure 10: IOC: increase in market cap is less than the debt and earnings improvement



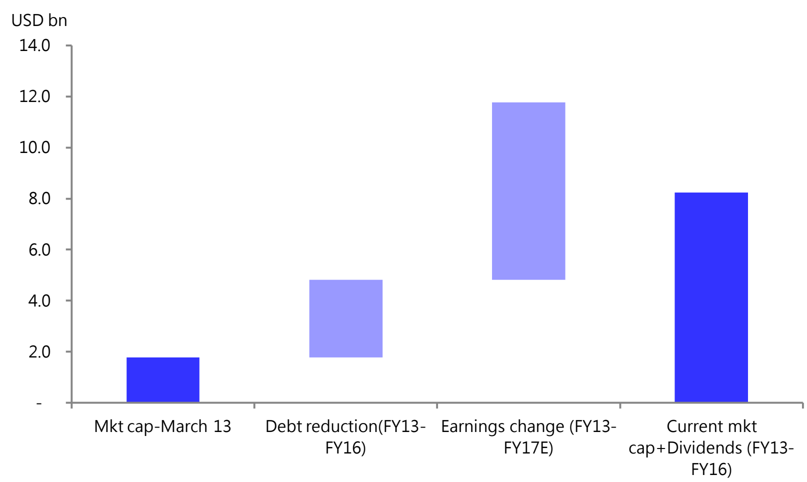
Source: Company data, Deutsche Bank

Figure 11: BPCL: increase in market cap is less than the debt and earnings improvement



Source: Company data, Deutsche Bank

Figure 12: HPCL: increase in market cap is less than the debt and earnings improvement



Source: Company data, Deutsche Bank

Figure 13: Debt declined dramatically over FY13-FY16

USDbn	Debt FY13	Debt FY16	Debt reduction	Mkt Cap FY13	Debt reduction as % of Mkt Cap
IOC	16.4	9.3	7.2	12.5	57%
BPCL	6.1	4.4	1.7	5.0	34%
HPCL	8.4	5.4	3.0	1.8	172%

Source: Company data, Deutsche Bank

Over FY13-FY16, OMCs' earnings have risen by 2.5x to 9.8x driven by improvement in refining margins, higher refining throughput, growth in marketing margins and marketing volume growth.

Figure 14: Net profits rose by up to 10x over FY13-FY16

INR m	FY13	FY16	FY17E	Chg 13-16	Chg13-17E
IOC	44,490	112,192	189,970	2.5x	4.3
BPCL	18,808	79,815	91,777	4.2x	4.9
HPCL	5,013	49,215	59,205	9.8x	11.8

Source: Company data, Deutsche Bank estimates

Figure 15: The OMCs de-rated over FY13-FY17

	EV/EBITDA		P/E	
	FY13	FY17E	FY13	FY17E
IOC	10.7	6.3	13.3	9.5
BPCL	8.0	7.0	12.4	9.8
HPCL	11.5	5.7	18.1	8.8

Source: Company data, Deutsche Bank estimates

Figure 16: OMCs – massive outperformers over FY13-FY17

	Stock price as on 1/Sep/2013	Current	Performance
IOC	105	372	3.5x
BPCL	138	622	4.5x
HPCL	57	513	9.1x

Source: Company data, Deutsche Bank

Marketing business (50% of earnings) is clearly undervalued

Of the OMCs' regional and global peers, Caltex (Australia), Z Energy (New Zealand) and CST brands (USA) derive a significant proportion of their operating profits from the fuel marketing business. Caltex derives 64% of its EBIT from fuel marketing, whereas Z Energy and CST Brands are fuel marketing companies with no refining. The marketing segment (including pipelines) accounts for 40%-55% of the Indian OMCs' EBITDA.

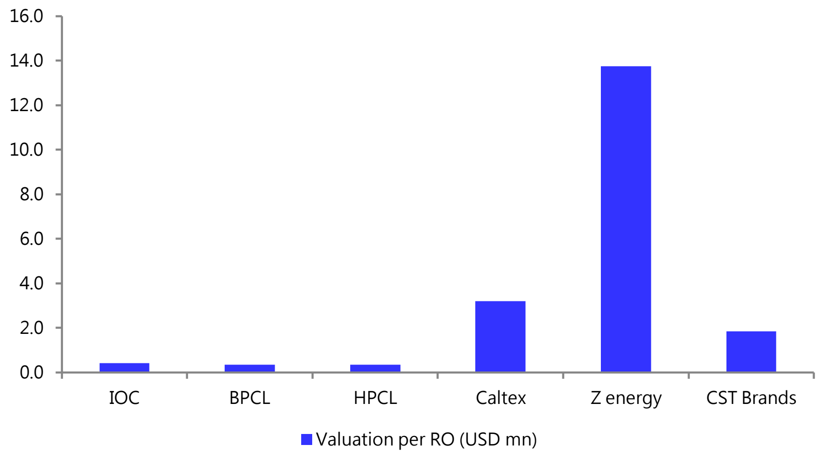
Figure 17: Business mix vs. peers

	Refining share in total EBIT/EBITDA	Marketing share in total EBIT/EBITDA	Comments
Caltex	36%	64%	
SK Innovation	65.6%		Lubricant 30% and remainder petchem
S-Oil Corp	37.6%		Lubricant 30% and remainder petchem
GS Holdings Corp	48.8%		Lubricant 30% and remainder petchem
Thai Oil PCL	70%		Rest in petchem
IRPC PCL	35%		Rest in petchem
Bangchak	50%	25%	Rest in Utility business
Z Energy		100%	
CST Brands		100%	
Reliance Industries	65%		petchem 28%
IOC	25%	22%	26 % Pipelines & 27% petchem
BPCL	49%	51%	
HPCL	62%	38%	

Source: Company data, Deutsche Bank

After netting out the value of the refining assets, we estimate that the Indian OMCs' marketing segment is trading at a sizable discount of 34%-71% to its marketing peers. If we consider valuations on a per retail outlet (RO) basis, the OMCs are trading at around USD0.4m/RO, whereas Caltex, Z Energy and CST Brands trade at USD3.2m/RO, USD13.8m/RO and USD1.8m/RO, respectively. While investors may assign a modest discount for the state-owned status, as well as the poor historic returns, the degree of undervaluation appears excessive, considering the robust RoE and profitability.

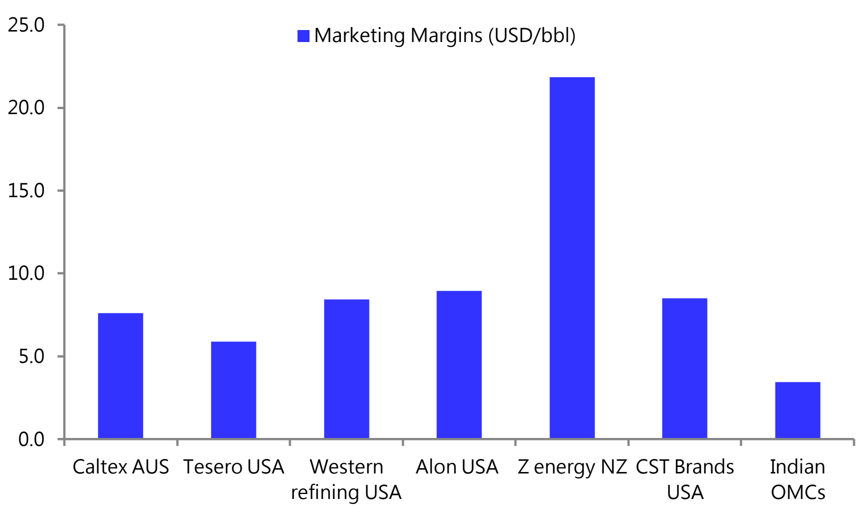
Figure 18: Derived value per RO



Source: Company data, Deutsche Bank

Some would argue that Caltex, Z energy and CST earn a higher margin and hence deserve a high premium over the OMCs.

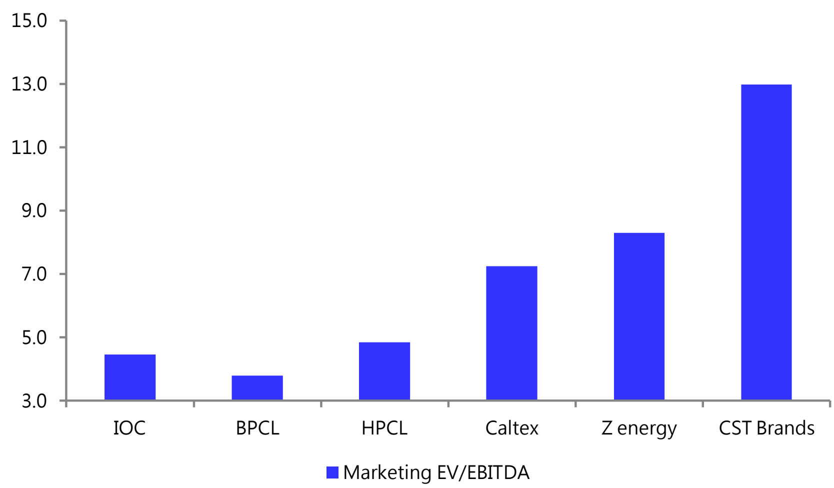
Figure 19: Gross marketing margins – OMCs and their peers



Source: Company data, Deutsche Bank

But even if we compare the valuations on EV/EBITDA for the marketing segments, HPCL is trading at a discount of 34%-63%, BPCL at 49%-71% and IOCL at 40%-66%.

Figure 20: Marketing EV/EBITDA

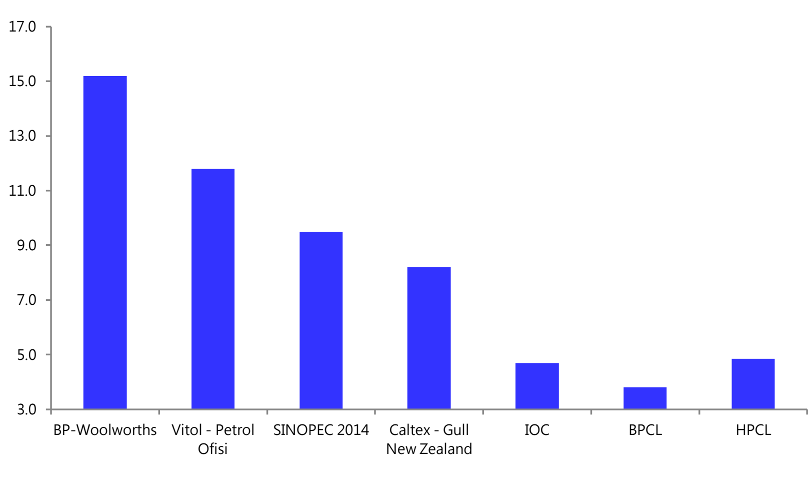


Source: Company data, Deutsche Bank

Recent deals for fuel marketing infrastructure have been at higher multiples

Sinopec sold a 30% stake in its marketing (fuel & non-fuel) arm – Sinopec Marketing – in 2015, at an equity value of USD58bn. PTT has now announced its intention to list its marketing arm – PTT OR. Caltex and BP were involved in buying retail operations. All of these deals have been concluded at valuations at a sizable premium to the current valuations of the OMCs, underscoring the attractiveness of the marketing business, especially retailing.

Figure 21: Marketing EV/EBITDA



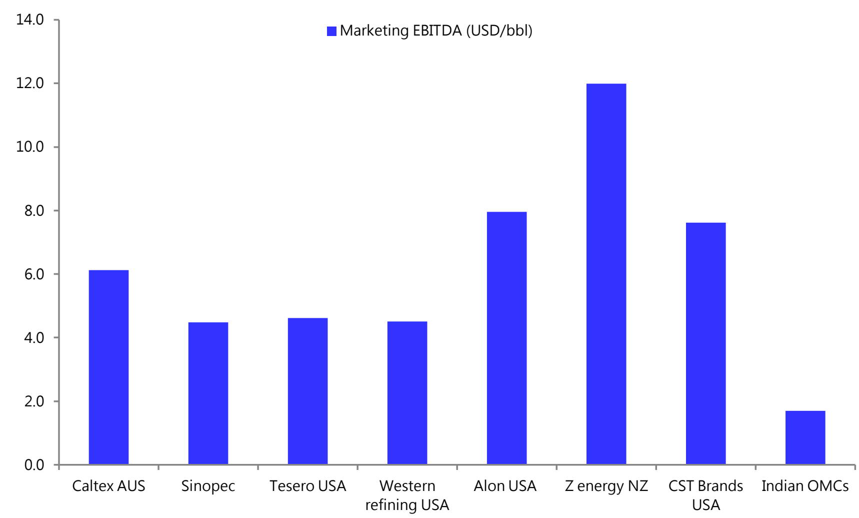
Source: Company data, Deutsche Bank, EV/EBIT for BP-Woolworths and Vitol-Petrol Ofisi

Auto fuel retailing: RO throughput as important as retail margins

Since the deregulation of diesel in October 2014, the Street has been expecting net (EBITDA) marketing margins on auto fuel to double from INR0.7/lit to over INR1.4/lit. At INR0.9/lit, auto fuel margins in India are at over 50% discount to those in other markets, such as the US, Australia, or NZ. Over the next five years we do expect this gap to narrow. We expect net marketing margins on auto fuels in India to rise by INR0.1/lit (USD0.23bbl) each year to INR1.4/lit (USD3.2/bbl), a CAGR of 9%.

Gross marketing margins on auto fuels had stagnated to about INR1.4/litre (net margins of about INR 0.7/litre) for over 7 years i.e. from FY06 to FY13, implying that margins in the Indian market had been artificially kept low before diesel deregulation despite the cost inflation over this period. We expect normalization of marketing margins over the next 5 years. Marketing margins have already moved up by INR0.2/litre to INR1.6/litre over FY13 - FY17. The margin increase will be driven partly by micro market strategies employed by the OMCs, allowing the OMCs to derive higher margins in certain markets. The OMCs have already started charging up to INR 0.2 per litre more on petrol and up to INR 0.15 per litre more on diesel at select ROs depending on the competitiveness, additional services offered, etc. With this successful initial implementation, we expect the OMCs to widen the scope of this strategy thereby driving margin expansion.

Figure 22: Marketing EBITDA



Source: Company data, Deutsche Bank

Figure 23: Marketing margins and earnings sensitivity

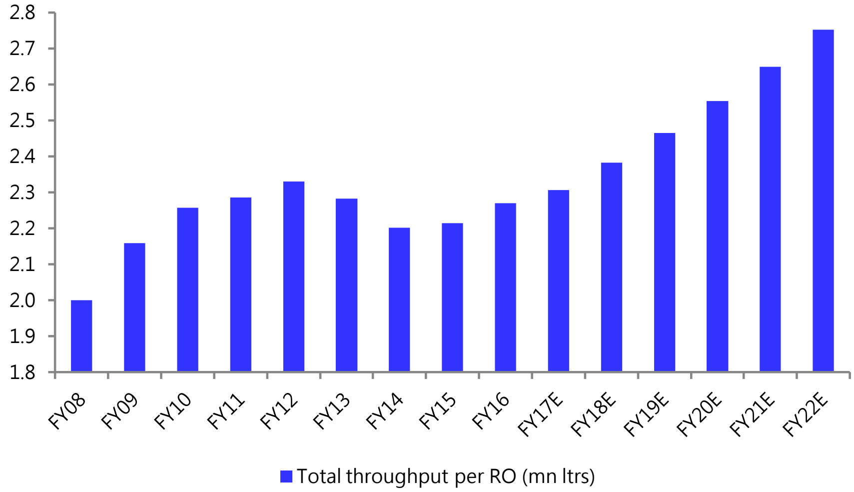
1% higher volume growth	FY18E New	FY18 Base Case	Chg%
IOC			
Gross marketing margins (INR bn)	516.3	511.9	0.9%
Net Profit (INR bn)	210.8	207.9	1.4%
EPS (INR)	43.4	42.8	1.4%
BPCL			
Gross marketing margins (INR bn)	212.1	210.0	1.0%
Net Profit (INR bn)	110.7	109.3	1.3%
EPS (INR)	76.6	75.6	1.3%
HPCL			
Gross marketing margins (INR bn)	201.7	200.0	0.9%
Net Profit (INR bn)	61.5	60.4	1.9%
EPS (INR)	60.5	59.4	1.9%
5% higher marketing margins	FY18E New	FY18 Base Case	Chg%
IOC			
Gross marketing margins (INR bn)	531.7	511.9	3.9%
Net Profit (INR bn)	221.0	207.9	6.3%
EPS (INR)	45.5	42.8	6.3%
BPCL			
Gross marketing margins (INR bn)	218.9	210.0	4.2%
Net Profit (INR bn)	115.6	109.3	5.8%
EPS (INR)	79.94	75.6	5.8%
HPCL			
Gross marketing margins (INR bn)	209.2	200.0	4.6%
Net Profit (INR bn)	66.5	60.4	10.2%
EPS (INR)	65.4	59.4	10.2%

Source: Deutsche Bank estimates

While the market is focused on marketing margins, throughput per retail outlet has been rising, slowly and silently, over the past three years. Throughput per retail outlet in India is lower by over 27% than in other markets such as China, the US, Australia or NZ.

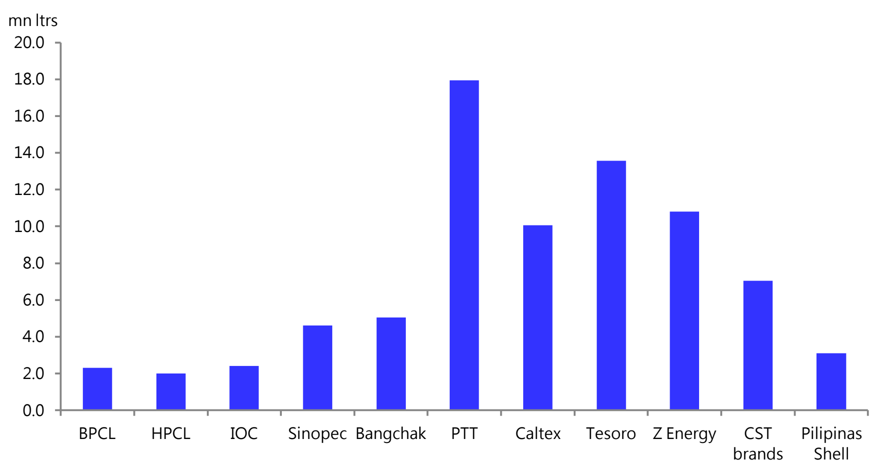
Over the next five years, assuming an auto fuel volume growth CAGR of 7%, we estimate throughput per RO could reach 2.8m litres from 2.3m litres in FY17.

Figure 24: OMCs' combined throughput per RO



Source: Company data, Deutsche Bank estimates

Figure 25: Throughput per RO: OMCs vs. peers

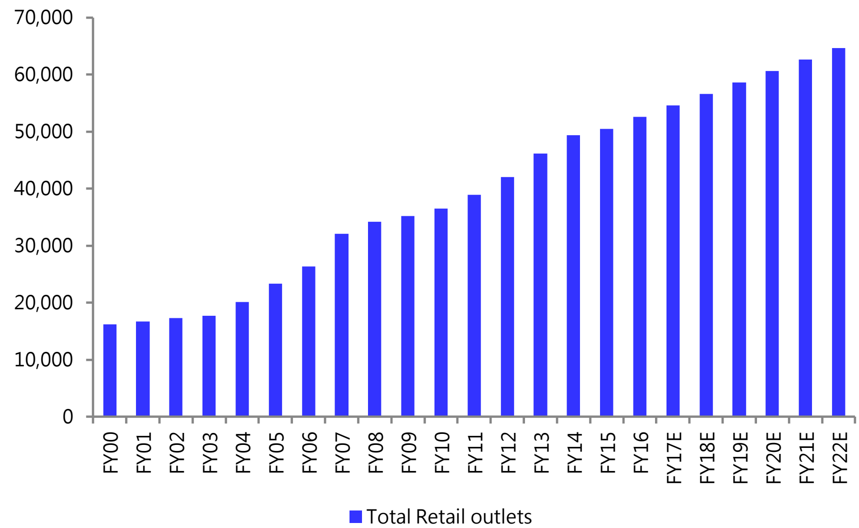


Source: Company data, Deutsche Bank

Slower growth in retail outlets to improve profitability per RO, marketing RoE

Auto fuel Retail Outlets (RO) have registered an 8% CAGR over the last 15 years. The pace did not slacken even when the OMCs were undergoing a cash crunch during FY12-14, when OMCs' working capital debt shot up on account of galloping subsidies. Going forward, we expect the growth in retail outlets to slow as the OMCs focus on filling gaps in distribution, raising rural penetration and increasing automation. We estimate RO addition of about between 1,500-2,000 p.a. (~4% of their current network) for the three OMCs. With auto fuel consumption growth of over 6% p.a. over the next five years, slower retail outlet growth would boost profitability per retail outlet and marketing RoE.

Figure 26: Total retail outlets (OMCs)

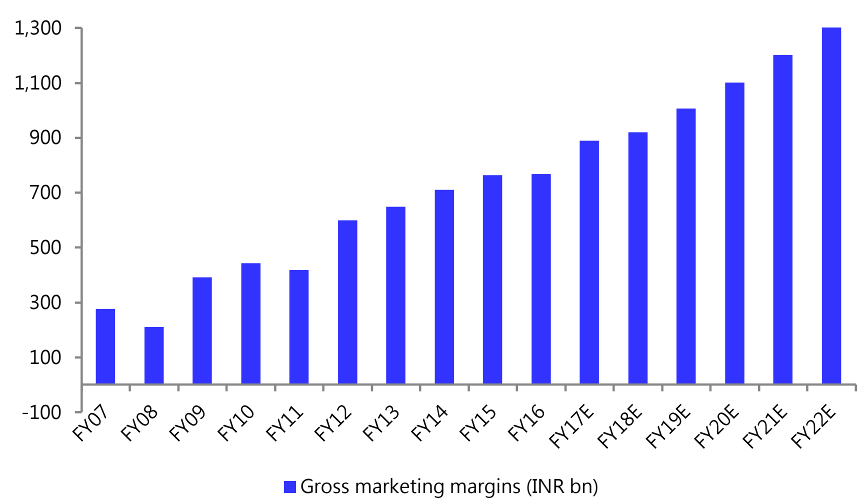


Source: Company data, Deutsche Bank estimates

Growth in marketing margins

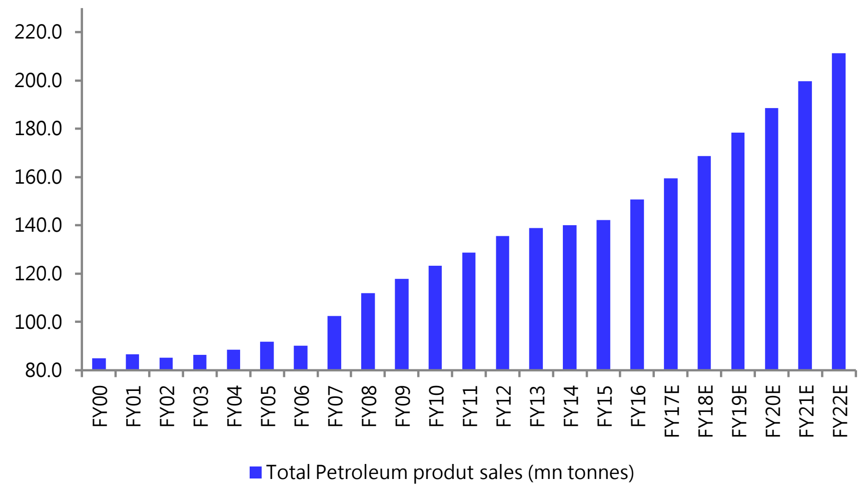
Gross marketing margins for the Oil Marketing Companies have risen by 177% over FY07-FY16 as petroleum product consumption has posted a CAGR of 4% over the same period. This growth in gross marketing margins over this period is despite investor concerns on the lack of pricing freedom for auto fuels and cooking fuels (67% of total consumption).

Figure 27: Gross marketing margins, FY07-FY22E



Source: Company data, Deutsche Bank estimates

Figure 28: OMCs' total petroleum product sales volumes



Source: Company data, Deutsche Bank estimates

Logistic moat getting wider

The OMCs own 12,307km of product pipelines – the cheapest mode of transport – to support their retailing networks.

The OMCs also have a product-sharing agreement between themselves, to reduce the logistics cost to supply to their pan-India network of ~55,000 petrol pumps. As part of the agreement, all the OMCs procure gasoline or diesel in a particular area from the nearest OMC refinery. It is a ton-for-ton product-sharing agreement.

Pipelines and product-sharing agreements ensure that any other competitor is at a severe cost disadvantage, as they need to move the product by road. We estimate that it would cost approximately INR1.9/lit to transport auto fuel about 1,000km from the refinery via road using trucks. Considering the YTD FY17 average auto fuel net marketing margin of INR0.9/lit, this implies that the OMCs' competitors can be a serious threat to the OMCs' market share only within 500km of their refineries.

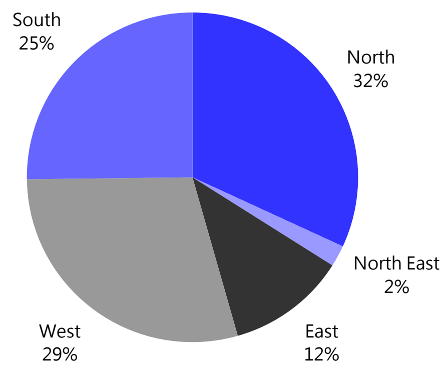
With refineries located in the state of Gujarat in the Western region of the country, we expect private competitors to take significant market share only in the Western region. OMCs' logistics cost advantage should prevent any major market share loss for them in other regions. Private competitors have gained only about 5% market share in the retail auto fuels market over the past 26 months since diesel was deregulated.

Figure 29: Product pipelines

S. No.	Name of Pipeline	Operating Entity	Year of Starting Operation	Capacity (MMT)	Length in Kilometres
1	Digboi-Tinsukia	IOCL	1956	1.00	75
2	Guwahati-Siliguri	IOCL	1964	1.40	435
3	Barauni-Kanpur	IOCL	1966	3.50	745
4	Koyali-Ahmedabad	IOCL	1966	1.10	116
5	Haldia-Barauni	IOCL	1967	1.25	525
6	Haldia-Mourigram-Rajbandh	IOCL	1972	1.35	277
7	Panipat-Delhi	IOCL	1982	3.50	182
8	Panipat-Ambala-Jalandhar	IOCL	1982	3.50	434
9	Mathura-Delhi	IOCL	1982	3.70	147
10	Bijwasan-Panipat	IOCL	2010		111
11	Mumbai-Pune-Sholapur	HPCL	1985	4.30	503
12	Trombay-Wadibunder	HPCL	1992	0.00	17
13	Koyali-Sanganer	IOCL	1996	4.60	1287
14	HPFR-Mumbai Airport ATF	HPCL	1996	0.01	20
15	Panipat-Bhatinda	IOCL	1996	1.50	219
16	Mumbai Black Oil Pipeline	HPCL	1997	1.50	21
17	Mumbai-Manmad-Bijwasan:				
	Mumbai-Manmad	BPCL	1998	6.00	252
	Manmad-Manglya	BPCL	2003	3.50	358
	Manglya-Piyala	BPCL	2007	2.20	722
	Piyala-Bijwasan	BPCL	2007	1.00	57
18	Vizag-Vijayawada-Secundreabad	HPCL	2002	5.38	572
19	Cochin-Coimbatore-Karur	PCCK	2002	3.30	293
20	Mangalore-Bangalore	PMHBL	2003	2.14	362
21	Mathura-Tundla	IOCL	2003	1.20	56
22	Mathura-Bharatpur	IOCL	2010		21
23	Panipat-Rewari	IOCL	2004	1.50	155
24	Chennai-Trichy-Madurai	IOCL	2005	2.30	683
25	Koyali-Dahej	IOCL	2006	2.60	197
26	Mundra-Delhi	HPCL	2007	5.00	1054
27	Ramanmandi-Bahadurgarh	HPCL	2007	4.71	243
28	Chennai ATF	IOCL	2008	0.18	95
29	ATF P/L to Bangalore Airport	IOCL	2008	0.66	36
30	Koyali-Ratlam	IOCL	2009	2.00	265
31	Chennai-Bangalore	IOCL	2010	2.45	290
32	Bina-Kota	BPCL	2011	2.80	259
33	Ramanmandi-Bhatinda	HPCL	2011	1.13	30
34	Awa-Salawas	HPCL	2014	2.34	93
35	Paradip-Sambalpur-Ranchi	IOCL	Not Operational	5.00	1100
	Total		**89.61**	**12307**	

Source: PNGRB

Figure 30: Petroleum product market by region

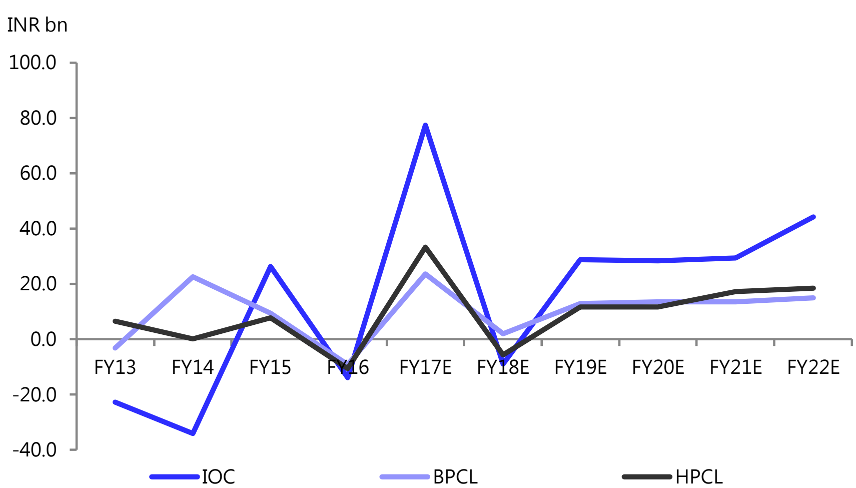


Source: PPAC, Deutsche Bank

Growth in marketing EBITDA and change in share of marketing

Over FY17-FY22, we estimate EBITDA from the marketing segment to rise by 75% for BPCL, 77% for HPCL and 75% for IOC. The marketing segment's EBITDA growth for the OMCs will be driven by 34% to 39% growth in marketing volumes and 26% to 30% growth in marketing margins. We estimate the reported marketing EBITDA in FY17e to be higher because of the impact of inventory gains. Inventory gains / losses (dependent essentially on gain or loss in crude oil price) could potentially drive reported marketing segment profitability higher or lower than our estimates.

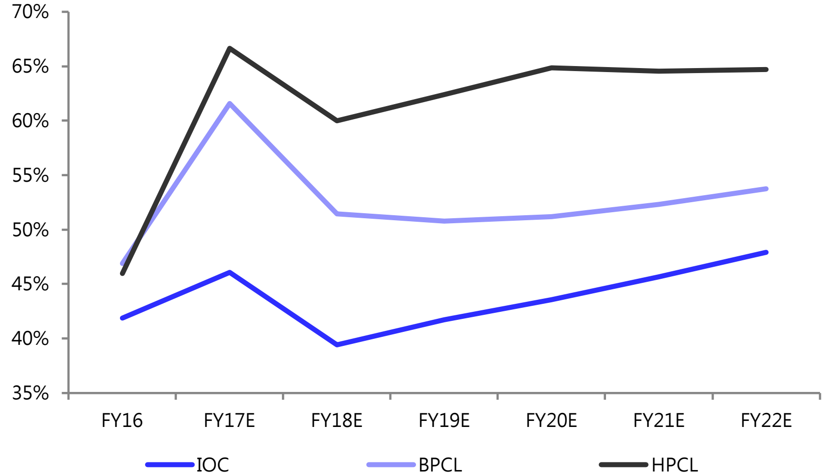
Figure 31: Growth in marketing EBITDA



Source: Company data, Deutsche Bank estimates

Over this period, we estimate the share of marketing (including pipelines) EBITDA (excluding inventory gains) to rise from 47% to 54% for BPCL, 46% to 65% for HPCL and 42% to 48% for IOC.

Figure 32: Marketing EBITDA as a percentage of total

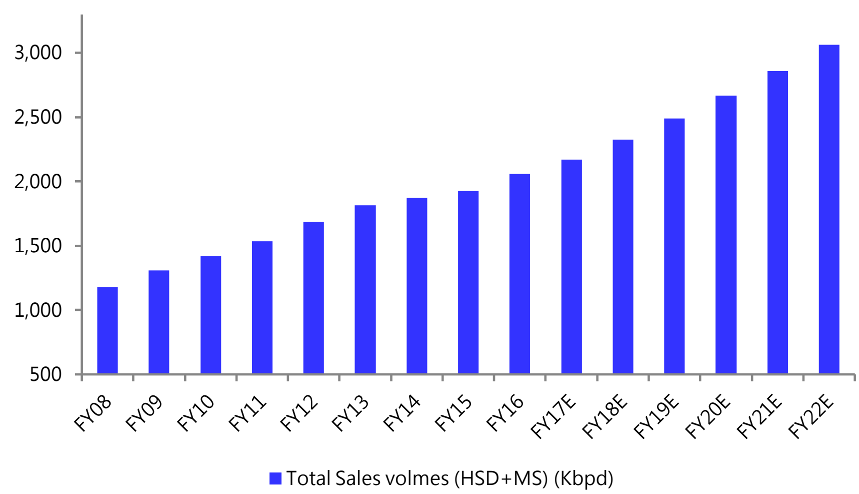


Source: Company data, Deutsche Bank estimates

Petroleum product demand growth

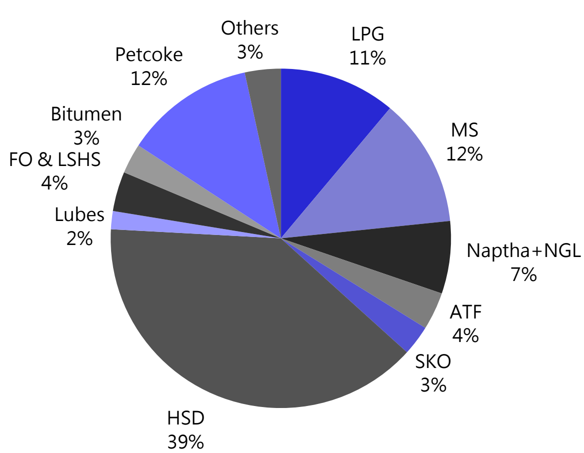
Petroleum product sales rose at 11.6%, their fastest pace over the past 10 years in FY16 and are up by 7.3% YTD FY17. This is after an anaemic CAGR of 4% over FY05-15. In FY17, gasoline, LPG, FO (especially as bunker fuel), Petcoke and Aviation fuel have been the key drivers of consumption growth. We expect consumption growth to remain robust in FY18 and FY19 at 7.6% and 7%, driven by gasoline, aviation fuel, LPG and petcoke consumption. Diesel and gasoline consumption growth in the long term are supported by robust vehicle sales, an increase in road kilometres and a pick-up in industrial activity.

Figure 33: Autofuels sales volumes



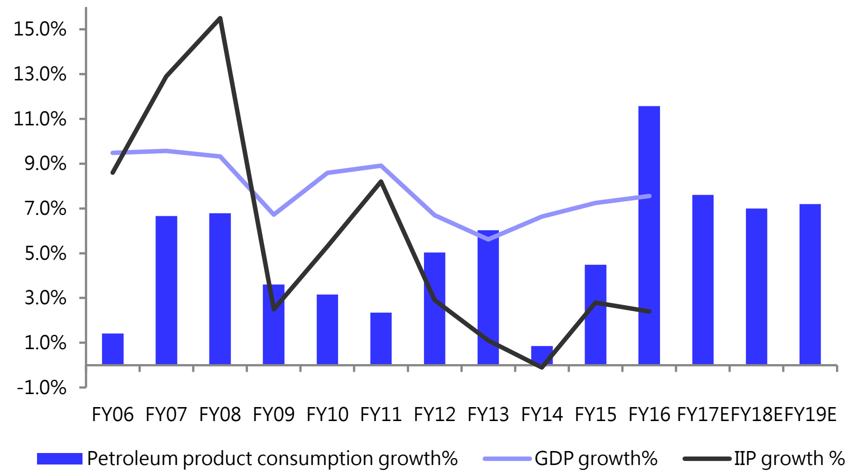
Source: Company data, Deutsche Bank estimates

Figure 34: FY17 YTD petroleum product consumption mix



Source: PPAC, Deutsche Bank

Figure 35: Petroleum product growth rate vs. GDP & IIP



Source: CSO, PPAC, Deutsche Bank estimates

India consumed 185 MMT of oil products in FY16, a 4% CAGR over the last 16 years. Diesel comprised the bulk of the consumption at 40%, followed by petrol/gasoline at 12%, LPG at 11%, petcoke at 10% and naphtha at 7%. During the same period, India's real GDP has posted a 7% CAGR, implying India's oil demand elasticity to be at 0.6x of GDP growth. We estimate oil products' demand to post a 7% CAGR over FY17-22E. Assuming India's GDP posts a 7% CAGR over FY17-22, oil products' demand growth implies a demand elasticity of 1x, which is higher than the historical average of 0.6x. Petroleum product consumption growth was 11.6% in FY16 i.e. demand elasticity of 1.5x and 8.6% in 9MFY17 i.e. demand elasticity of 1.2x, higher than the historical average as well as our forecast demand elasticity.

Figure 36: Oil products consumption

000 tonnes	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Petrol	17,128	19,075	21,847	24,031	26,194	29,075	32,274
Diesel	68,364	69,416	74,647	77,633	81,515	86,405	91,590
LPG	16,294	18,000	19,623	21,782	23,960	26,356	28,992
Naptha	11,305	11,082	13,271	13,404	13,538	13,673	13,810
Fuel oil	6,236	5,961	6,632	7,854	8,404	8,993	9,622
ATF	5,505	5,723	6,262	7,042	7,606	8,214	8,871
Total	**158,407**	**165,520**	**184,674**	**203,844**	**219,345**	**234,723**	**251,530**
Growth %							
Petrol	8.8%	11.4%	14.5%	10.0%	9.0%	11.0%	11.0%
Diesel	-1.0%	1.5%	7.5%	4.0%	5.0%	6.0%	6.0%
LPG	4.4%	10.5%	9.0%	11.0%	10.0%	10.0%	10.0%
Naptha	-8.0%	-2.0%	19.8%	1.0%	1.0%	1.0%	1.0%
Fuel oil	-18.6%	-4.4%	11.3%	18.4%	7.0%	7.0%	7.0%
ATF	4.4%	4.0%	9.4%	12.5%	8.0%	8.0%	8.0%
Total	**0.9%**	**4.5%**	**11.6%**	**10.4%**	**7.6%**	**7.0%**	**7.2%**

Source: PPAC, Deutsche Bank estimates

Government resolve and reforms to ensure OMCs' retail pricing freedom

Many investors remain sceptical about the government's reform credentials, given the government's past track record of actively participating in setting the retail price for household cooking fuels, LPG and kerosene, as well as auto fuels, petrol and diesel. Our confidence on the continuance of reforms stems from the government's resolve to reduce fuel subsidies and the steps already taken in that direction. With the price deregulation of diesel, almost all the risk of change in oil price has now been passed on to the consumer as the OMCs are free to change retail price in line with change in international price. With reduced risk of change in oil price impacting the fortunes of the marketing segments, OMCs are no longer subject to the vagaries of the crude oil price.

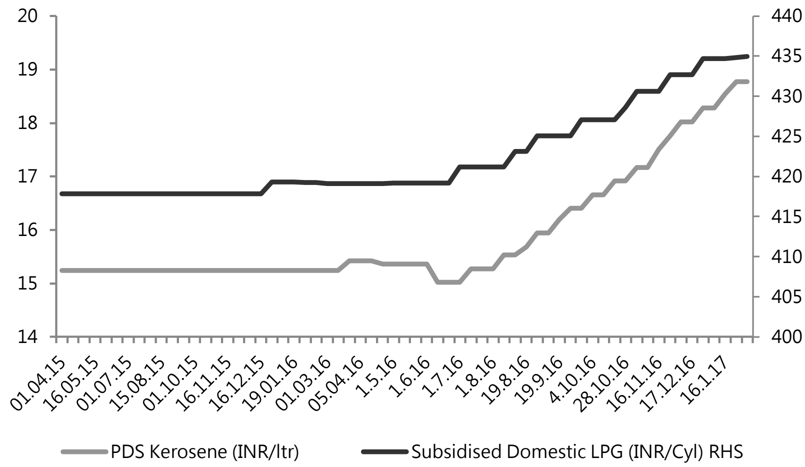
Diesel subsidy extinguished in October 2014

The government successfully extinguished the diesel subsidy in October 2014 through moderate monthly price hikes. Since then, diesel prices have been revised in line with changes in international prices without any government intervention, without any hue and cry from consumers or opposition political parties. The impact of extinguishing the diesel subsidy, we believe, goes beyond fuel subsidy reduction. It has provided a method to implement moderate price increases for any fuel without attracting consumers' ire. The government is using a similar method to reduce subsidies for cooking fuels – LPG and kerosene.

Raising LPG and kerosene price: the holy cow

The Oil Marketing Companies have been raising the retail price of LPG by INR2/kg (0.5% of retail price) and of kerosene by INR0.25/lit (1.3% of retail price) each month since June 2016, helping alleviate the impact of rising oil prices on fuel subsidies, and further raising confidence on gradual but sure subsidy reduction in the medium term.

Figure 37: LPG, kerosene price

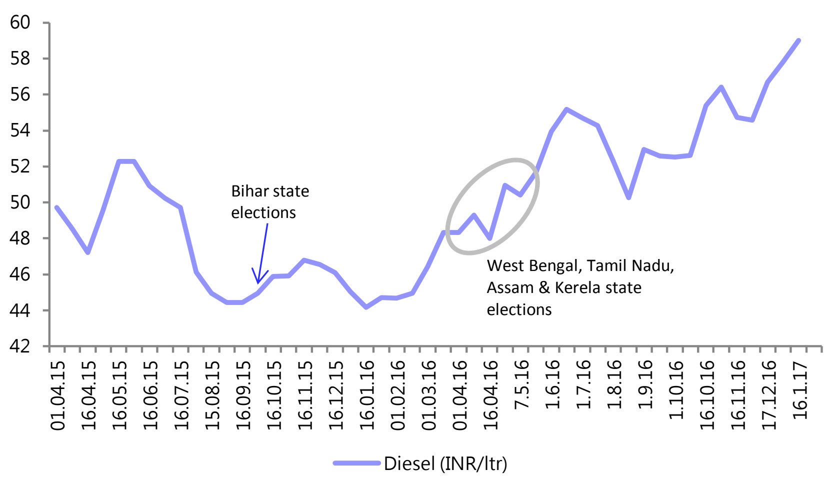


Source: PPAC, Deutsche Bank

Raising auto fuel price during elections

The Oil Marketing Companies have raised prices through state and general elections, the highest risk period for market-linked prices, as well as through times of high inflation.

Figure 38: Diesel prices

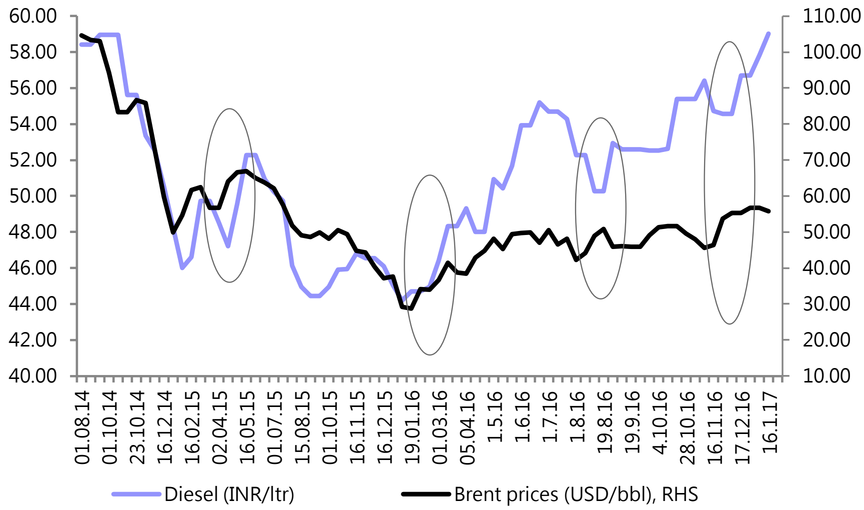


Source: PPAC, Deutsche Bank

Sharp increases in auto fuel price

Oil Marketing Companies have been changing the retail price of auto fuels for over six years in the case of gasoline and for over two years in the case of diesel, in line with changes in international prices. The OMCs have raised prices by as much as INR7.5/lit for gasoline (11% of retail price) and INR3.1/lit for diesel (7% of retail price) at any one time, belying investor concerns that the government will not allow any sharp increase in auto fuel prices over a short period.

Figure 39: Diesel prices



Source: PPAC, Deutsche Bank

Aggressive implementation of Direct Benefit Transfer (DBT) to LPG and kerosene to target subsidies

The government has reiterated its resolve to use DBT to rationalize subsidies. The use of DBT and the targeting of subsidies to economically weaker households will reduce the dependence on sharp retail price increases as the only means to reduce the fuel subsidy. The government has even started targeting LPG subsidy to households with less than INR1m annual income.

While the government has implemented direct benefit transfer for LPG, the reform push is now directed towards kerosene subsidies. Steps are being taken to enhance DBT coverage for kerosene. In this direction, Jharkhand has implemented DBT for kerosene in four districts from 1 April, 2016 and other states are being encouraged to follow suit. We expect a full implementation of DBT to reduce the kerosene subsidy by as much as 40% (or USD0.6bn at FY18e price) by eliminating the leakage of subsidized kerosene to the parallel market.

Robust cash flow

We expect the Oil Marketing Companies to generate robust free cash flows of about USD10bn over FY18-22e. Operating cash flows will be driven by improvement in marketing margins, rising refining margins and higher volumes.

State-owned oil marketing companies will be the biggest beneficiaries of the growth in petroleum product consumption in the country. Over FY17-FY20, the FCF yield of state-owned OMCs should improve dramatically, by over 280bps for IOC and BPCL. HPCL, with capex starting from FY18, will likely see its FCF yield decline by 130 bps.

We also estimate net debt/equity of OMCs to reduce further over FY16-22 – HPCL from 1.6x in FY16 to 0.6x in FY22, IOC from 0.6x in FY16 to 0.2x in FY22, and BPCL from 0.7x in FY16 to 0.1x in FY22.

Figure 40: Operating cash and FCF

	Operating cash		FCF		Net debt/equity	
	FY17E	FY21E	FY17	FY21E	FY17E	FY21E
IOC	235.6	431.5	-13.6	93.1	0.6	0.3
BPCL	120.4	203.3	13.1	78.5	0.6	0.3
HPCL	107.0	138.9	51.1	-35.2	1.0	0.6

Source: Deutsche Bank estimates

Figure 41: FCF yield %

	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E
IOC	-0.8%	1.7%	12.0%	4.9%	5.2%	8.9%
BPCL	1.5%	0.6%	0.3%	4.3%	8.7%	14.0%
HPCL	9.8%	0.7%	-2.5%	8.5%	-6.8%	-9.5%

Source: Deutsche Bank estimates

Figure 42: Operating cash flow to improve

	IOC		BPCL		HPCL	
INR bn	**FY12-FY16**	**FY18-22E**	**FY12-FY16**	**FY18-22E**	**FY12-FY16**	**FY18-22E**
Operating cash (INR bn)	1,126	2,051	554.1	854.0	414.8	600.4
Capex (INR bn)	941	1,462	437.4	602.2	419.7	650.0
FCF (INR bn)	185.2	589.5	116.6	251.8	-4.9	-49.6
USD bn						
Operating cash (INR bn)	20.2	27.5	9.9	11.4	7.4	8.0
Capex (INR bn)	16.9	19.6	7.8	8.1	7.5	8.7
FCF (INR bn)	3.3	7.9	2.1	3.4	(0.1)	(0.7)

Source: Company data, Deutsche Bank estimates

Figure 43: Free cash flow sensitivity

1% higher volume growth	FY20E New	FY20 Base Case	Chg%
IOC			
FCF (INR bn)	89.9	88.4	1.6%
FCF Yield %	5.0%	4.9%	8bps
BPCL			
FCF (INR bn)	40.4	38.6	4.6%
FCF Yield %	4.5%	4.3%	19bps
HPCL			
FCF (INR bn)	45.8	44.3	3.2%
FCF Yield %	8.8%	8.5%	27bps

5% higher marketing margins	FY20E New	FY20 Base Case	Chg%
IOC			
FCF (INR bn)	105.2	88.4	19.0%
FCF Yield %	5.8%	4.9%	93bps
BPCL			
FCF (INR bn)	48.1	38.6	24.6%
FCF Yield %	5.3%	4.3%	105bps
HPCL			
FCF (INR bn)	51.9	44.3	17.1%
FCF Yield %	10.0%	8.5%	146bps

Source: Deutsche Bank estimates

We value the OMCs' refining at 6x EV/EBITDA and marketing at 8x EV/EBITDA as against 6x EV/EBITDA for the combined refining and marketing business earlier.

Figure 44: OMC stocks could more than double over the next three years

INR/shr	CMP	Mar'18 TP	Upside	Mar'21 TP	Upside
IOC	372	490	31.9%	730	96.5%
BPCL	622	870	39.8%	1310	110.5%
HPCL	513	700	36.5%	1115	117.4%

Source: Deutsche Bank estimates

Figure 45: Earnings change summary

	Revised			Previous			Chg%		
INR/shr	**FY18E EPS**	**FY19E EPS**	**TP**	**FY18E EPS**	**FY19E EPS**	**TP**	**FY18E EPS**	**FY19E EPS**	**TP**
IOC	42.8	48.5	490	40.8	46.5	405	5.0%	4.3%	21.0%
BPCL	75.6	87.9	870	75.1	83.0	750	0.5%	5.9%	16.0%
HPCL	59.4	68.5	700	60.0	67.1	590	-1.1%	2.0%	18.6%

Source: Deutsche Bank estimates

Figure 46: Key operating parameters

	FY15	FY16	FY17E	FY18E	FY19E
Oil price (US$/bbl)	85.7	47.5	48.8	58.0	65.0
IOC					
Throughput (mmtpa)	53.6	56.7	59.8	66.9	69.9
GRM (US$/bbl)	0.3	5.1	5.8	6.5	6.6
BPCL					
Throughput (mmtpa)	23.4	24.1	22.7	24.8	27.2
GRM (US$/bbl)	3.6	6.6	5.5	7.0	7.3
HPCL					
Throughput (mmtpa)	16.3	17.2	16.5	16.7	16.7
GRM (US$/bbl)	2.8	6.7	5.6	6.3	6.4
Bina					
Throughput (mmtpa)	6.2	6.4	6.6	6.6	6.6
GRM (US$/bbl)	6.1	11.7	10.7	10.9	11.0
Bhatinda					
Throughput (mmtpa)	7.3	10.7	10.8	10.8	11.0
GRM (US$/bbl)			10.2	11.3	11.4
NRL					
Throughput (mmtpa)	2.8	2.5	2.7	2.7	2.7
GRM (US$/bbl)	9.5	8.1	7.8	8.5	8.6
MRPL					
Throughput (mmtpa)	14.7	15.5	15.8	15.0	15.0
GRM (US$/bbl)	-0.6	5.2	7.2	4.9	5.0
CPCL					
Throughput (mmtpa)	10.8	9.6	10.5	10.5	10.5
GRM (US$/bbl)	2.0	5.3	5.8	5.4	5.5

Source: Company data, Deutsche Bank estimates

Capex spend of USD36bn over FY18-22

Our estimates, based on detailed project-by-project bottom-up projections, suggest that Indian oil marketing companies should spend over USD36bn by FY22. The refining up-cycle and robust domestic demand have the potential to sustain the investment cycle.

We expect capex of USD13bn over FY17-22 in announced refinery capacity addition of 61 MMTPA (28% of India's current capacity). As per the Report of the Expert Committee on Auto Fuel Vision & Policy 2025, state-owned oil marketing companies are expected to spend another USD3-4bn on improving fuel quality by FY25, of which USD1.5-2bn will likely be spent by FY20.

Against India's total petroleum product consumption in FY16 of 185mmtpa (3.7mmbpd), the state-owned oil companies' total refining capacity was 150mmtpa (3mmbpd). Even assuming 5% consumption growth, this would mean a 9mmtpa (185 kbpd) of incremental demand each year. With a mandate to ensure supply to satisfy domestic demand, this would imply that the state-owned oil companies need to set up new capacity of 10mmtpa (200 kbpd) each year. Benchmarking to IOC's new greenfield Paradip refinery, this would mean USD3.4bn capex each year on refining by the Indian state-owned oil downstream companies.

Figure 47: India needs USD3.5bn capex on refining each year

FY16 Consumption (mmtpa)	185
Demand growth @ 5%	9.3
Refining capacity required (mmtpa)	10.0
Capex required (USD bn)	3.4

Source: Deutsche Bank

Figure 48: OMCs' planned capex

IOC (INR m)	FY17E	FY17-21E
Refining	34,000	500,000
Pipelines	13,000	220,000
Marketing	48,000	400,000
Petrochemicals	10,000	290,000
E&P	60,000	300,000
Others	25,000	120,000
Total	**190,000**	**1,830,000**
BPCL (INR m)	FY17E	FY17-21E
Refining	70,000	-
Marketing	8,000	-
E&P	8,000	-
Maintenance	39,000	-
Total	**125,000**	**1,000,000**
HPCL (INR m)	FY17E	FY16-21E
Refining	14,180	257,410
Marketing	45,630	261,600
Renewables	2,890	9,700
R&D	1,120	5,040
JVs	4,800	24,400
Total	**68,620**	**558,150**

Source: Company data, Deutsche Bank

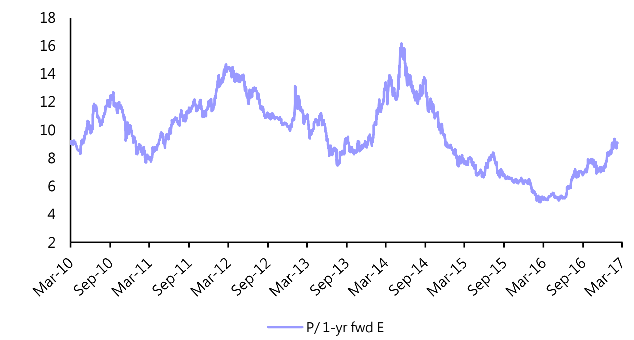
Figure 49: Key projects

		Cost (INR m)	Cost (USD bn)
Refinery projects			
IOC	Distillate yield improvement at Haldia	30,745	0.46
IOC	Koyali expansion from 13.7 to 18 mmtpa		
IOC	Panipat expansion from 15 to 25 mmtpa	180,000	2.69
IOC	Mathura expansion from 8 to 11mmtpa	87,000	1.30
IOC	Baruni expansion from 6 to 9 mmtpa	82,870	1.24
IOC	BS-VI project Koyali refinery	9,276	0.14
BPCL	Bina expansion to 15mmtpa	180,000	2.69
BPCL	Mumbai refinery - DHT installation	9,000	0.13
HPCL	Mumbai expansion from 7.9 to 9.5mmtpa	42,000	0.63
HPCL	Visakh expansion to 8.3 to 15 mmtpa	208,000	3.10
HPCL	HMEL expansion from 9 to 11.3 mmtpa	50,000	0.75
Total		**878,891**	**13.12**
Pipelines Projects			
IOC	Paradip Raipur Ranchi Pipeline	17,956	0.27
IOC	Paradip Haldia Durgapur LPG pipeline	18,222	0.27
IOC	Paradip Hyderabad Pipeline	23,191	0.35
HPCL	MDPL Phase 2	19,000	0.28
HPCL	VVSPL Phase 2	30,000	0.45
Total		**108,369**	**1.62**
Petchem Projects			
IOC	Propylene unit at Paradip	31,474	0.47
IOC	Panipat Olefin recovery project	15,200	0.23
BPCL	Kochi PDDP	46,000	0.69
Total		**92,674**	**1.38**

Source: Company data, Deutsche Bank

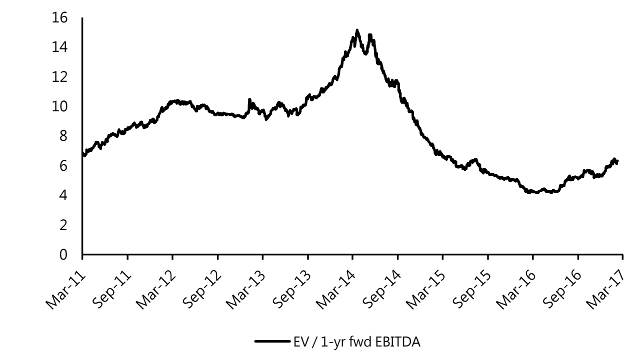
Valuation charts

Figure 50: IOC – P/E



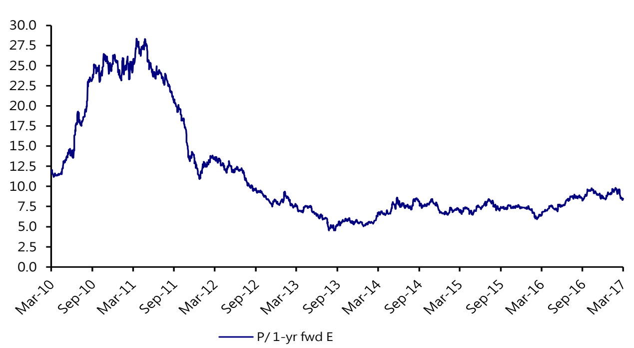
Source: Bloomberg Finance LP, Deutsche Bank

Figure 51: IOC – EV/EBITDA



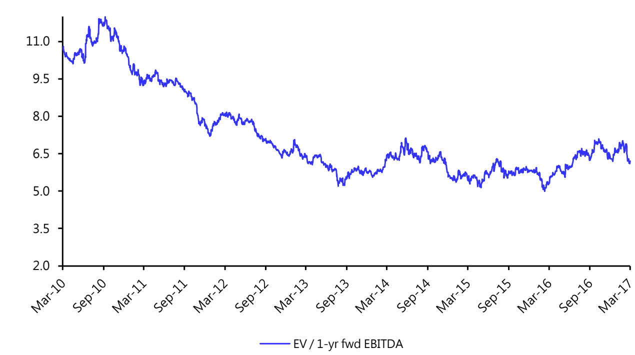
Source: Bloomberg Finance LP, Deutsche Bank

Figure 52: BPCL – P/E



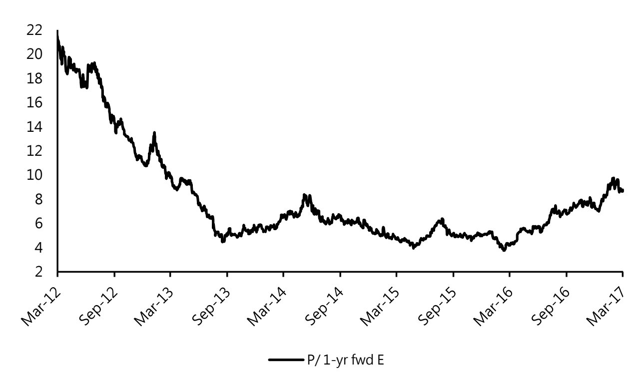
Source: Bloomberg Finance LP, Deutsche Bank

Figure 53: BPCL – EV/EBITDA



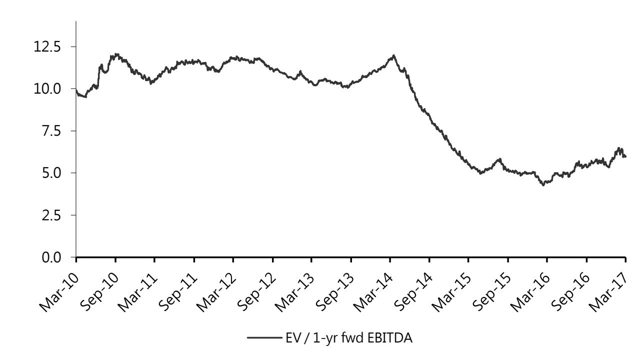
Source: Bloomberg Finance LP, Deutsche Bank

Figure 54: HPCL – P/E



Source: Bloomberg Finance LP, Deutsche Bank

Figure 55: HPCL – EV/EBITDA



Source: Bloomberg Finance LP, Deutsche Bank

Model updated:08 March 2017

Running the numbers

Asia

India

Oil & Gas

BPCL

Reuters: BPCL.BO Bloomberg: BPCL IN

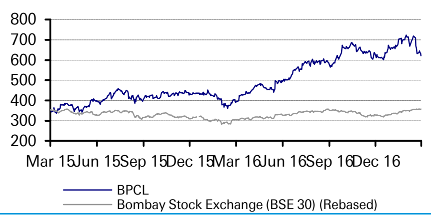
Buy

Price (10 Mar 17)	INR 622.35
Target Price	INR 870.00
52 Week range	INR 395.48 - 724.30
Market Cap (m)	INRm 900,028
	USDm 13,502

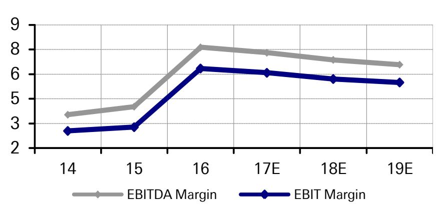
Company Profile

BPCL is the second largest public sector refining and marketing company in India with 24.5 MMTPA total capacity (including Numaligarh Refinery). It also operates a new 6 MMTPA complex refinery at Bina, Madhya Pradesh (BPCL 49% stake) in joint venture with Oman Oil Company. BPCL also has a 10% participating interest (PI) in the giant Rovuma Basin gas discovery in offshore Mozambique and a 12.5% PI in the prospective Wahoo block in Brazil.

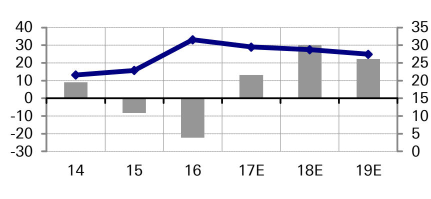
Price Performance



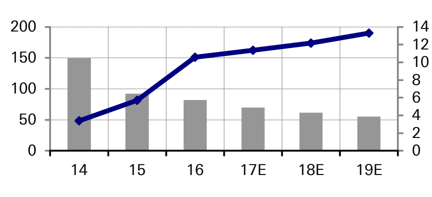
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Mar	2014	2015	2016	2017E	2018E	2019E
Financial Summary						
DB EPS (INR)	27.04	33.24	55.19	63.46	75.55	87.93
Reported EPS (INR)	27.04	33.24	55.19	63.46	75.55	87.93
DPS (INR)	8.50	11.25	15.50	17.50	20.00	23.65
BVPS (INR)	134.3	155.9	193.8	236.8	288.8	352.1
Weighted average shares (m)	1,446	1,446	1,446	1,446	1,446	1,446
Average market cap (INRm)	232,391	432,550	596,041	900,028	900,028	900,028
Enterprise value (INRm)	494,181	599,751	786,116	1,099,995	1,122,970	1,151,463
Valuation Metrics						
P/E (DB) (x)	5.9	9.0	7.5	9.8	8.2	7.1
P/E (Reported) (x)	5.9	9.0	7.5	9.8	8.2	7.1
P/BV (x)	1.58	2.45	2.29	2.63	2.15	1.77
FCF Yield (%)	11.1	22.9	4.3	1.5	0.6	0.3
Dividend Yield (%)	5.3	3.8	3.8	2.8	3.2	3.8
EV/Sales (x)	0.2	0.2	0.4	0.5	0.4	0.3
EV/EBITDA (x)	5.3	6.1	5.5	7.0	5.9	5.2
EV/EBIT (x)	7.3	8.9	6.6	8.5	7.1	6.2
Income Statement (INRm)						
Sales revenue	2,644,066	2,425,985	1,886,514	2,134,957	2,778,284	3,394,296
Gross profit	227,486	228,498	293,050	291,432	333,311	375,898
EBITDA	93,590	97,776	144,137	156,093	191,083	223,551
Depreciation	26,109	30,267	24,286	26,067	32,383	36,759
Amortisation	0	0	0	0	0	0
EBIT	67,480	67,509	119,851	130,025	158,700	186,792
Net interest income(expense)	-19,821	-11,805	-11,321	-11,432	-13,030	-14,032
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	13,998	21,201	17,409	20,180	20,425	20,539
Profit before tax	61,657	76,905	125,939	138,773	166,096	193,299
Income tax expense	21,127	26,085	41,299	42,219	50,615	58,883
Minorities	1,423	2,754	4,825	4,777	6,226	7,253
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	39,107	48,066	79,815	91,777	109,254	127,163
DB adjustments (including dilution)	0	0	0	0	0	0
DB Net profit	39,107	48,066	79,815	91,777	109,254	127,163
Cash Flow (INRm)						
Cash flow from operations	95,865	207,423	135,712	120,426	130,921	125,885
Net Capex	-70,080	-108,475	-110,097	-107,361	-125,342	-123,237
Free cash flow	25,785	98,949	25,615	13,065	5,579	2,648
Equity raised/(bought back)	0	0	0	0	0	0
Dividends paid	-9,734	-14,978	-36,162	-29,706	-33,949	-35,647
Net inc/(dec) in borrowings	-8,208	-71,351	22,026	-6,397	17,975	23,492
Other investing/financing cash flows	-18,145	-8,479	-876	6,748	10,395	9,507
Net cash flow	-10,302	4,140	10,604	-16,290	0	0
Change in working capital	*4,988*	*129,553*	*11,717*	*11,330*	*-3,320*	*-31,529*
Balance Sheet (INRm)						
Cash and other liquid assets	23,113	34,463	46,290	30,000	30,000	30,000
Tangible fixed assets	364,759	446,076	545,816	627,109	720,069	806,547
Goodwill/intangible assets	4,758	2,891	610	610	610	610
Associates/investments	69,853	77,118	77,363	79,363	76,363	73,363
Other assets	425,120	302,517	267,806	272,142	321,699	397,743
Total assets	887,603	863,065	937,885	1,009,225	1,148,741	1,308,263
Interest bearing debt	331,523	254,922	288,930	282,532	300,507	323,999
Other liabilities	350,214	369,659	352,893	366,017	408,942	449,599
Total liabilities	681,737	624,581	641,822	648,549	709,449	773,598
Shareholders' equity	194,263	225,485	280,336	342,407	417,711	509,225
Minorities	11,603	12,998	15,727	18,269	21,581	25,440
Total shareholders' equity	205,866	238,483	296,063	360,676	439,292	534,665
Net debt	*308,409*	*220,460*	*242,640*	*252,532*	*270,507*	*293,999*
Key Company Metrics						
Sales growth (%)	9.2	-8.2	-22.2	13.2	30.1	22.2
DB EPS growth (%)	107.9	22.9	66.1	15.0	19.0	16.4
EBITDA Margin (%)	3.5	4.0	7.6	7.3	6.9	6.6
EBIT Margin (%)	2.6	2.8	6.4	6.1	5.7	5.5
Payout ratio (%)	31.4	33.8	28.1	27.6	26.5	26.9
ROE (%)	21.6	22.9	31.6	29.5	28.7	27.4
Capex/sales (%)	2.7	4.5	6.1	5.0	4.5	3.6
Capex/depreciation (x)	2.8	3.6	4.8	4.1	3.9	3.4
Net debt/equity (%)	149.8	92.4	82.0	70.0	61.6	55.0
Net interest cover (x)	3.4	5.7	10.6	11.4	12.2	13.3

Source: Company data, Deutsche Bank estimates

Model updated:08 March 2017

Running the numbers

Asia

India

Oil & Gas

HPCL

Reuters: HPCL.BO | Bloomberg: HPCL IN

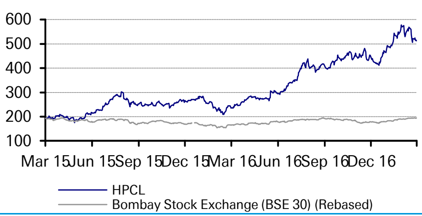
Buy

Price (10 Mar 17)	INR 512.90
Target Price	INR 700.00
52 Week range	INR 235.34 - 578.00
Market Cap (m)	INRm 521,635
	USDm 7,825

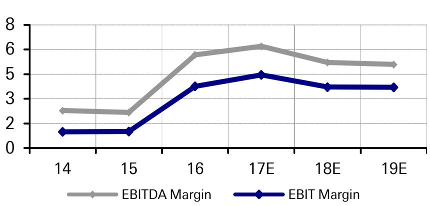
Company Profile

HPCL is the third largest public sector refining and marketing company in India. The company has refineries in Mumbai and Vizag with total capacity of 16 MMTPA. In a joint venture with Mittal Energy Investment Pte Ltd, it has recently commissioned a 9 MMTPA complex refinery at Bhatinda in Punjab (HPCL 49% stake). HPCL also holds a 17% equity stake in Mangalore Refinery and Petrochemicals (MRPL) which operates a 15 MMTPA refinery.

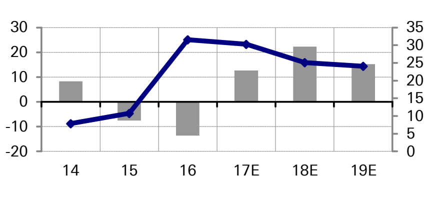
Price Performance



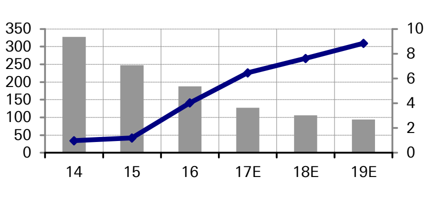
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Mar	2014	2015	2016	2017E	2018E	2019E
Financial Summary						
DB EPS (INR)	10.62	14.73	46.72	58.21	59.36	68.49
Reported EPS (INR)	10.62	14.73	48.47	58.21	59.36	68.49
DPS (INR)	5.16	8.16	11.49	12.00	13.00	14.00
BVPS (INR)	137.7	136.9	170.4	214.5	258.7	310.8
Weighted average shares (m)	1,017	1,017	1,017	1,017	1,017	1,017
Average market cap (INRm)	71,277	153,399	247,447	521,635	521,635	521,635
Enterprise value (INRm)	478,135	444,900	523,802	749,502	751,001	770,630
Valuation Metrics						
P/E (DB) (x)	6.6	10.2	5.2	8.8	8.6	7.5
P/E (Reported) (x)	6.6	10.2	5.0	8.8	8.6	7.5
P/BV (x)	0.67	1.48	1.52	2.39	1.98	1.65
FCF Yield (%)	8.0	85.3	22.5	9.8	0.7	nm
Dividend Yield (%)	7.4	5.4	4.7	2.3	2.5	2.7
EV/Sales (x)	0.2	0.2	0.3	0.4	0.3	0.3
EV/EBITDA (x)	8.9	9.5	4.9	5.7	5.6	5.1
EV/EBIT (x)	20.5	20.2	7.4	8.0	7.8	7.0
Income Statement (INRm)						
Sales revenue	2,341,594	2,165,941	1,870,788	2,107,009	2,576,440	2,968,976
Gross profit	158,298	147,796	239,541	249,813	263,973	286,905
EBITDA	53,459	46,974	106,400	130,608	134,527	151,130
Depreciation	30,107	24,967	35,883	36,540	38,794	41,102
Amortisation	0	0	0	0	0	0
EBIT	23,352	22,007	70,517	94,068	95,733	110,028
Net interest income(expense)	-23,929	-18,352	-17,473	-14,568	-12,566	-12,446
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	-493	44	0	0	0	0
Other pre-tax income/(expense)	14,321	18,607	16,576	11,621	10,165	10,208
Profit before tax	13,250	22,307	69,621	91,121	93,333	107,790
Income tax expense	2,454	7,418	21,072	31,915	32,964	38,130
Minorities	-8	-97	-746	0	0	0
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	10,804	14,986	49,294	59,205	60,368	69,660
DB adjustments (including dilution)	0	0	-1,780	0	0	0
DB Net profit	10,804	14,986	47,514	59,205	60,368	69,660
Cash Flow (INRm)						
Cash flow from operations	65,141	193,982	117,624	106,977	82,510	92,809
Net Capex	-59,442	-63,125	-62,032	-55,831	-78,705	-105,986
Free cash flow	5,699	130,858	55,593	51,145	3,805	-13,178
Equity raised/(bought back)	-2,329	-12	0	0	0	0
Dividends paid	-3,379	-6,165	-17,599	-14,279	-15,469	-16,659
Net inc/(dec) in borrowings	22,685	-114,408	-20,366	-48,488	1,499	19,628
Other investing/financing cash flows	-16,885	-11,739	11,251	11,621	10,165	10,208
Net cash flow	5,792	-1,467	28,879	0	0	0
Change in working capital	*11,232*	*163,074*	*69*	*22,852*	*-6,487*	*-7,745*
Balance Sheet (INRm)						
Cash and other liquid assets	21,789	22,358	27,994	27,994	27,994	27,994
Tangible fixed assets	451,222	493,749	520,825	540,116	580,027	644,911
Goodwill/intangible assets	0	0	0	0	0	0
Associates/investments	56,908	61,078	55,704	55,704	55,704	55,704
Other assets	437,267	280,257	272,348	255,387	299,758	341,160
Total assets	967,186	857,443	876,871	879,200	963,483	1,069,769
Interest bearing debt	479,938	369,156	354,321	305,834	307,333	326,961
Other liabilities	347,212	347,900	348,882	354,773	392,657	426,314
Total liabilities	827,150	717,056	703,203	660,606	699,989	753,275
Shareholders' equity	140,000	139,244	173,271	218,197	263,096	316,097
Minorities	37	1,143	397	397	397	397
Total shareholders' equity	140,036	140,387	173,668	218,594	263,493	316,494
Net debt	*458,149*	*346,798*	*326,328*	*277,840*	*279,339*	*298,968*
Key Company Metrics						
Sales growth (%)	8.3	-7.5	-13.6	12.6	22.3	15.2
DB EPS growth (%)	115.5	38.7	217.1	24.6	2.0	15.4
EBITDA Margin (%)	2.3	2.2	5.7	6.2	5.2	5.1
EBIT Margin (%)	1.0	1.0	3.8	4.5	3.7	3.7
Payout ratio (%)	48.6	55.4	23.7	20.6	21.9	20.4
ROE (%)	7.8	10.7	31.5	30.2	25.1	24.1
Capex/sales (%)	2.6	3.0	3.3	2.6	3.1	3.6
Capex/depreciation (x)	2.0	2.6	1.7	1.5	2.0	2.6
Net debt/equity (%)	327.2	247.0	187.9	127.1	106.0	94.5
Net interest cover (x)	1.0	1.2	4.0	6.5	7.6	8.8

Source: Company data, Deutsche Bank estimates

Model updated:08 March 2017

Running the numbers

Asia

India

Oil & Gas

IOC

Reuters: IOC.BO	Bloomberg: IOCL IN

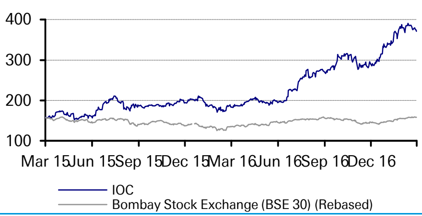
Buy

Price (10 Mar 17)	INR 371.50
Target Price	INR 490.00
52 Week range	INR 183.12 - 390.75
Market Cap (m)	INRm 1,803,967
	USDm 27,062

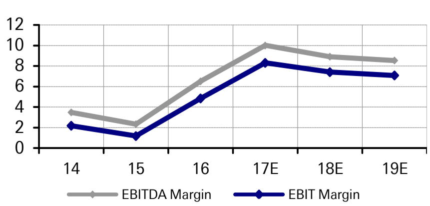
Company Profile

IOC is India's largest public sector oil refining and marketing company. Along with its subsidiaries, IOC operates ten refineries in India with a combined capacity of 66 MMTPA, c.30% of India's total refining capacity. IOC is also constructing a 15 MMTPA refinery at Paradip to be commissioned in CY14. In addition, it has >11,000 kms of crude and product pipelines with >70 MMTPA transmission capacity and operates >20,000 retail outlets. IOC also operates a 800k TPA petrochemicals plant at Panipat.

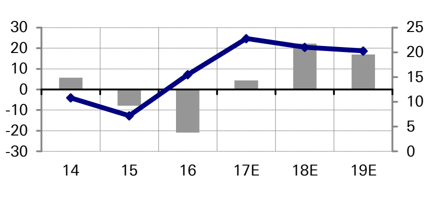
Price Performance



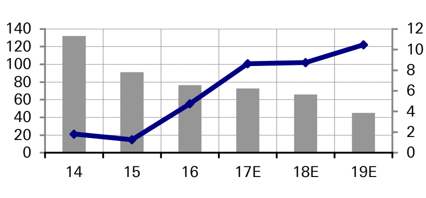
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Mar	2014	2015	2016	2017E	2018E	2019E
Financial Summary						
DB EPS (INR)	14.59	10.12	23.10	39.12	42.82	48.53
Reported EPS (INR)	14.59	10.12	23.10	39.12	42.82	48.53
DPS (INR)	4.35	3.30	7.00	7.50	8.50	9.25
BVPS (INR)	139.9	141.7	156.5	187.2	220.4	258.6
Weighted average shares (m)	4,856	4,856	4,856	4,856	4,856	4,856
Average market cap (INRm)	508,412	753,955	895,771	1,803,967	1,803,967	1,803,967
Enterprise value (INRm)	1,291,837	1,260,248	1,362,400	2,348,813	2,390,609	2,250,439
Valuation Metrics						
P/E (DB) (x)	7.2	15.3	8.0	9.5	8.7	7.7
P/E (Reported) (x)	7.2	15.3	8.0	9.5	8.7	7.7
P/BV (x)	0.90	1.20	1.20	1.98	1.69	1.44
FCF Yield (%)	5.5	44.6	12.7	nm	1.7	12.0
Dividend Yield (%)	4.2	2.1	3.8	2.0	2.3	2.5
EV/Sales (x)	0.3	0.3	0.4	0.6	0.5	0.4
EV/EBITDA (x)	7.6	12.0	5.9	6.3	5.9	5.0
EV/EBIT (x)	12.1	23.7	7.9	7.6	7.1	6.0
Income Statement (INRm)						
Sales revenue	4,883,449	4,495,087	3,559,266	3,715,374	4,540,836	5,311,077
Gross profit	555,374	503,873	667,014	763,505	830,486	900,763
EBITDA	170,565	105,359	231,816	371,596	404,819	453,837
Depreciation	63,600	52,190	59,185	62,830	68,435	77,321
Amortisation	0	0	0	0	0	0
EBIT	106,966	53,169	172,631	308,766	336,385	376,516
Net interest income(expense)	-59,079	-41,746	-36,300	-35,754	-38,481	-35,971
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	17,468	16,681	13,794	0	0	0
Other pre-tax income/(expense)	34,424	42,040	22,461	26,276	27,639	28,345
Profit before tax	99,779	70,144	172,586	299,288	325,542	368,890
Income tax expense	30,113	21,426	56,528	103,955	113,295	128,392
Minorities	-1,190	-402	3,865	5,363	4,341	4,845
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	70,856	49,120	112,192	189,970	207,906	235,652
DB adjustments (including dilution)	0	0	0	0	0	0
DB Net profit	70,856	49,120	112,192	189,970	207,906	235,652
Cash Flow (INRm)						
Cash flow from operations	242,040	459,762	270,198	235,632	239,494	454,434
Net Capex	-214,239	-123,739	-156,000	-249,230	-208,381	-238,381
Free cash flow	27,801	336,023	114,199	-13,598	31,113	216,053
Equity raised/(bought back)	0	0	0	0	0	0
Dividends paid	-18,501	-26,090	-35,900	-46,990	-51,306	-55,969
Net inc/(dec) in borrowings	55,975	-304,857	-41,755	78,216	41,797	-140,170
Other investing/financing cash flows	-40,427	-29,910	-28,656	-9,478	-10,842	-7,626
Net cash flow	24,847	-24,835	7,888	8,150	10,761	12,288
Change in working capital	*37,983*	*267,934*	*-33,338*	*-47,990*	*-150,493*	*30,503*
Balance Sheet (INRm)						
Cash and other liquid assets	37,045	12,211	20,137	20,137	20,137	20,137
Tangible fixed assets	1,097,420	1,164,253	1,277,364	1,463,764	1,603,710	1,764,769
Goodwill/intangible assets	8,732	7,337	7,768	7,768	7,768	7,768
Associates/investments	158,950	160,687	156,776	156,776	156,776	156,776
Other assets	1,364,300	992,467	957,791	1,003,910	1,147,201	1,176,141
Total assets	2,666,448	2,336,954	2,419,836	2,652,355	2,935,592	3,125,592
Interest bearing debt	949,159	648,929	613,281	691,497	733,294	593,124
Other liabilities	1,026,453	988,969	1,032,472	1,037,776	1,117,746	1,262,795
Total liabilities	1,975,612	1,637,898	1,645,753	1,729,273	1,851,040	1,855,919
Shareholders' equity	679,130	688,323	759,940	908,938	1,070,409	1,255,530
Minorities	11,706	10,733	14,143	14,143	14,143	14,143
Total shareholders' equity	690,836	699,056	774,083	923,081	1,084,552	1,269,673
Net debt	*912,114*	*636,718*	*593,145*	*671,361*	*713,157*	*572,987*
Key Company Metrics						
Sales growth (%)	5.8	-8.0	-20.8	4.4	22.2	17.0
DB EPS growth (%)	59.3	-30.7	128.4	69.3	9.4	13.3
EBITDA Margin (%)	3.5	2.3	6.5	10.0	8.9	8.5
EBIT Margin (%)	2.2	1.2	4.9	8.3	7.4	7.1
Payout ratio (%)	29.8	32.6	30.3	19.2	19.9	19.1
ROE (%)	10.8	7.2	15.5	22.8	21.0	20.3
Capex/sales (%)	4.5	2.9	4.4	6.7	4.6	4.5
Capex/depreciation (x)	3.4	2.5	2.6	4.0	3.0	3.1
Net debt/equity (%)	132.0	91.1	76.6	72.7	65.8	45.1
Net interest cover (x)	1.8	1.3	4.8	8.6	8.7	10.5

Source: Company data, Deutsche Bank estimates

The author of this report wishes to acknowledge the contribution made by Hitesh Chauhan, an employee of Evalueserve, a third-party provider to Deutsche Bank of offshore research support services.

Appendix 1

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*Other information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
BPCL	BPCL.BO	622.35 (INR) 10 Mar 17	7,14
HPCL	HPCL.BO	512.90 (INR) 10 Mar 17	14
IOC	IOC.BO	371.50 (INR) 10 Mar 17	14

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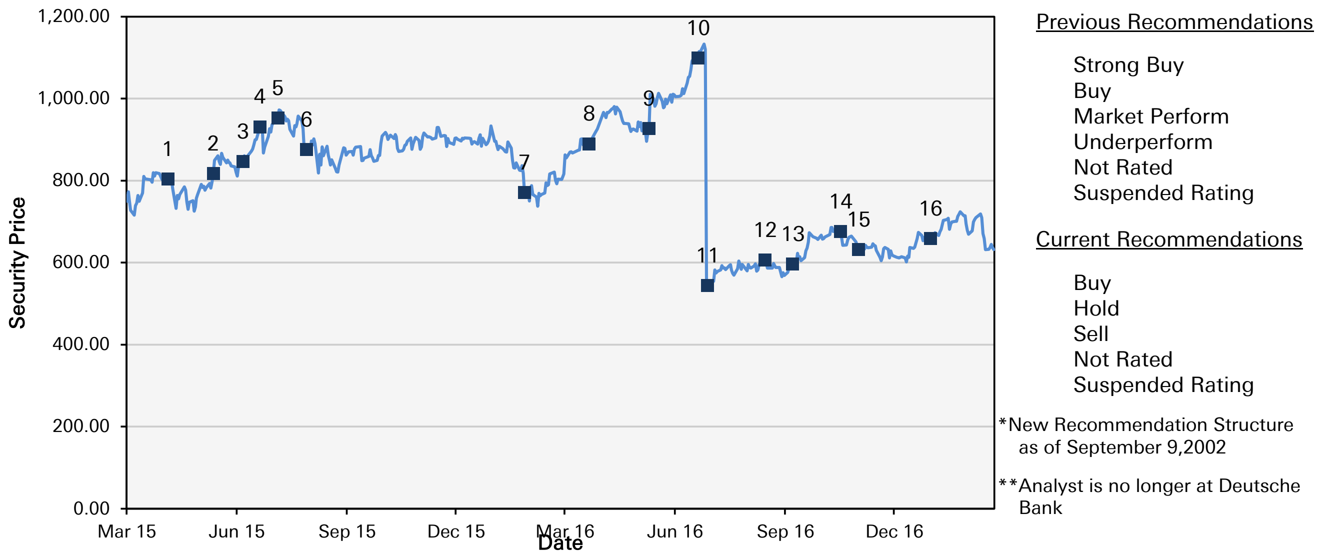
Historical recommendations and target price: BPCL (BPCL.BO)

(as of 3/10/2017)



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2.	28/05/2015:	Buy, Target Price Change INR990.00 Amit Murarka	10.	06/07/2016:	Buy, Target Price Change INR1,230.00 Harshad Katkar
3.	22/06/2015:	Buy, Target Price Change INR1,020.00 Harshad Katkar	11.	14/07/2016:	Buy, Target Price Change INR615.00 Amit Murarka
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8.	06/04/2016:	Buy, Target Price Change INR1,135.00 Harshad Katkar	16.	16/01/2017:	Buy, Target Price Change INR750.00 Harshad Katkar

Historical recommendations and target price: HPCL (HPCL.BO)
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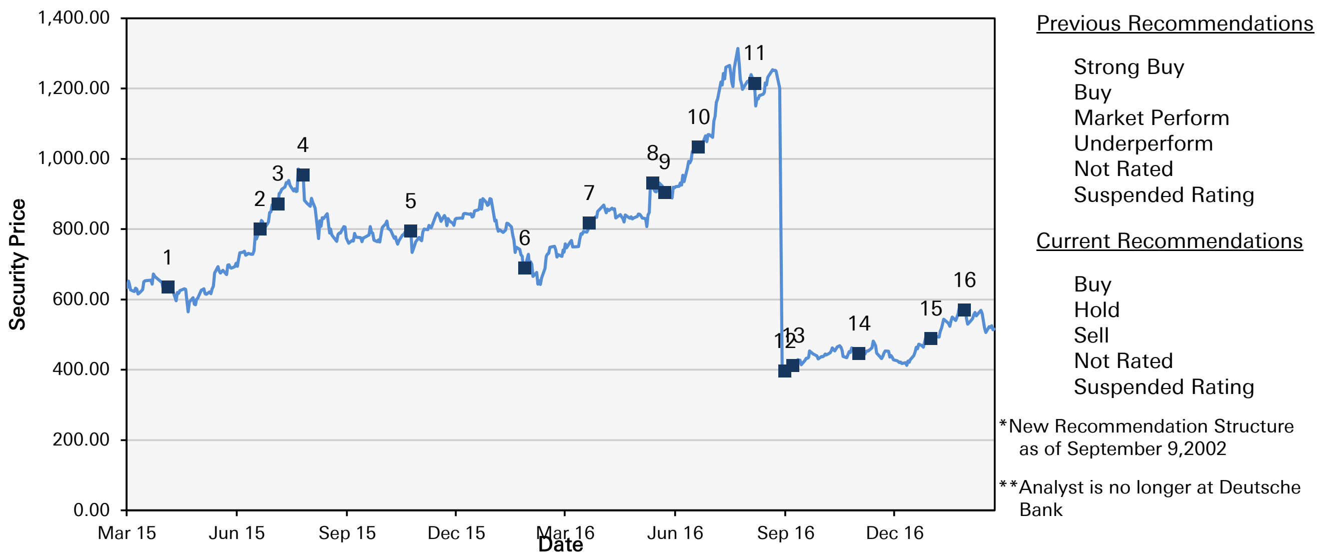

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6.	12/02/2016:	Buy, Target Price Change INR1,060.00 Harshad Katkar	14.	17/11/2016:	Buy, Target Price Change INR490.00 Harshad Katkar
7.	06/04/2016:	Buy, Target Price Change INR1,075.00 Harshad Katkar	15.	16/01/2017:	Buy, Target Price Change INR540.00 Harshad Katkar
8.	29/05/2016:	Buy, Target Price Change INR1,160.00 Harshad Katkar	16.	13/02/2017:	Buy, Target Price Change INR590.00 Harshad Katkar

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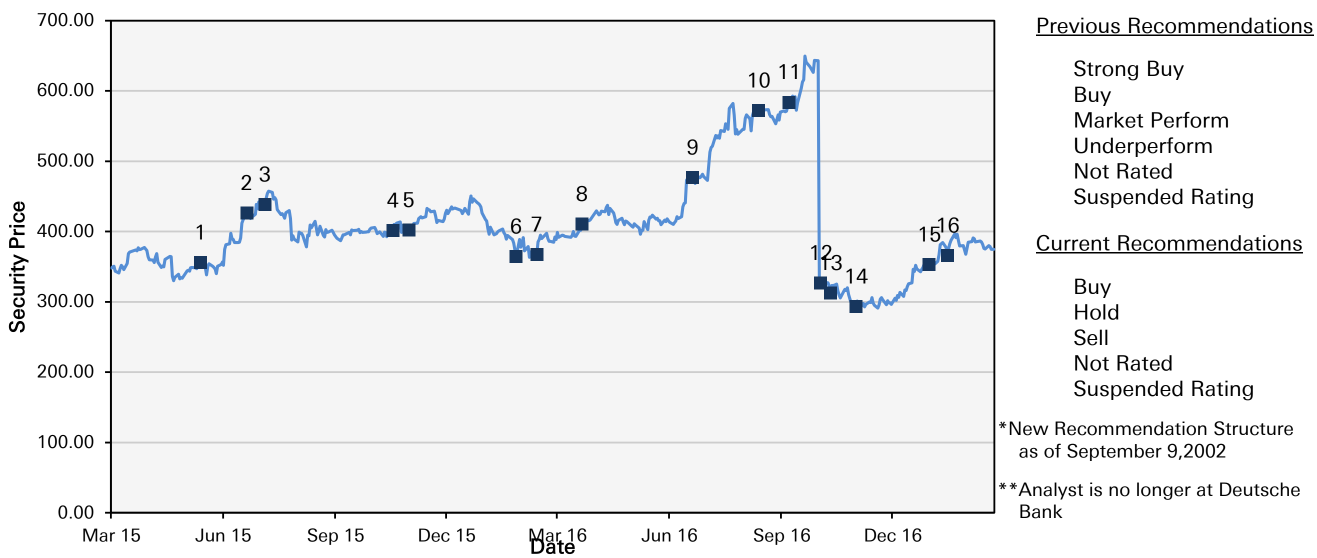
(as of 3/10/2017)



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3.	21/07/2015:	Buy, Target Price Change INR510.00 Harshad Katkar	11.	23/09/2016:	Buy, Target Price Change INR655.00 Harshad Katkar
4.	03/11/2015:	Buy, Target Price Change INR525.00 Harshad Katkar	12.	19/10/2016:	Buy, Target Price Change INR328.00 Amit Murarka
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6.	12/02/2016:	Buy, Target Price Change INR515.00 Harshad Katkar	14.	17/11/2016:	Buy, Target Price Change INR340.00 Harshad Katkar
7.	29/02/2016:	Buy, Target Price Change INR530.00 Harshad Katkar	15.	16/01/2017:	Buy, Target Price Change INR390.00 Harshad Katkar
8.	06/04/2016:	Buy, Target Price Change INR540.00 Harshad Katkar	16.	31/01/2017:	Buy, Target Price Change INR405.00 Harshad Katkar

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Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock

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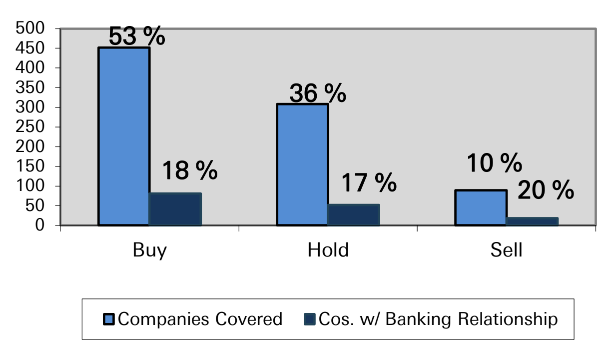
Equity rating dispersion and banking relationships



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