Prabhudas Lilladher
POWERING YOUR FINANCIAL GROWTH

INDIA'S MOST ADMIRED BRANDS & LEADERS 2016

GAIL (India)

On a fast track

Company Update

October 10, 2017

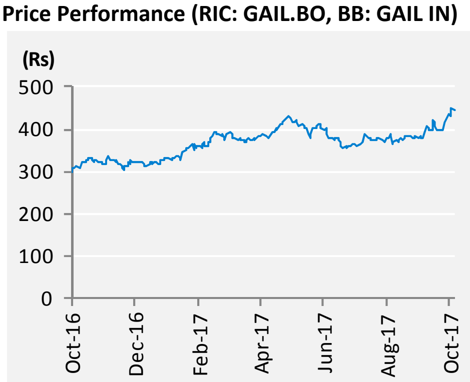
Avishek Datta
avishekdatta@plindia.com
+91-22-66322254

Rating	**BUY**
Price	Rs446
Target Price	Rs513
Implied Upside	15.0%
Sensex	31,847
Nifty	9,989

(Prices as on October 09, 2017)

Trading data			
Market Cap. (Rs bn)			753.5
Shares o/s (m)			1,691.3
3M Avg. Daily value (Rs m)			1555.2
Major shareholders			
Promoters			62.27%
Foreign			15.32%
Domestic Inst.			17.75%
Public & Other			4.66%
Stock Performance			
(%)	**1M**	**6M**	**12M**
Absolute	17.4	15.3	43.4
Relative	16.9	8.0	29.9
How we differ from Consensus			
EPS (Rs)	**PL**	**Cons.**	***% Diff.***
2018	24.5	27.5	*-11.0*
2019	29.7	30.2	*-1.7*

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



Source: Bloomberg

GAIL has multiple growth drivers in the medium term led by improving profitability at the Petrochemicals and LPG division on the back of higher volumes and benign gas prices. Implementation of unified pipeline tariff could be a game changer and remains an upside risk against our estimates of modest tariff increase. Also, concerns on placement of US LNG volumes are overdone as 86% of FY19E volumes are tied in, while for the long term, we expect US LNG will be placed in the Eastern India as government revives fertiliser plants and create new city gas networks in seven cities with potential demand of ~15mmscmd.

- **Multiple levers to drive core performance**: GAIL's LPG earnings will benefit from increased availability of C2-C3 from ONGC along with higher realisation. LPG transmission volumes are likely to be healthy, post sharp jump in FY17 volumes. Petrochemicals earnings post stabilisation will also benefit from higher volume and benign LNG prices, going forward.

- **Unified tariff - a game changer**: Recent consultation paper by the PNGRB, gas regulator, to move gas pipeline tariffs from current postal/zonal system to a uniform model could drive GAIL tariffs to Rs57/unit against FY17 realisation of Rs37/unit. This could lead to 25% upside to FY19E estimates; our estimates factor in 10% tariff increase for FY18/19E.

- **US shale volume; concerns abate**: Contrary to market concerns, GAIL has placed ~5MTPA of its committed 5.8MTPA of US LNG volumes for FY19. For the long term, we expect volumes to be diverted to Eastern India where government plans to revive fertiliser plants and set up city gas operation in seven cities following completion of *Jagdishpur-Haldia (JHBDPL)*pipeline by FY20E.

- **Structural play on gas**: We expect GAIL's earnings to increase at 16% CAGR over FY18-20E. Reiterate "**BUY**" with a revised DCF-based PT of Rs513 (Rs429 earlier) as we revisit our volume and realisation assumptions and on roll over to FY20E.

Key financials (Y/e March)	2016	2017	2018E	2019E
Revenues (Rs m)	517,213	481,489	553,244	598,887
Growth (%)	*(8.8)*	*(6.9)*	*14.9*	*8.3*
EBITDA (Rs m)	42,801	64,094	73,068	84,720
PAT (Rs m)	22,264	38,016	41,452	50,166
EPS (Rs)	17.6	22.5	24.5	29.7
Growth (%)	*(26.7)*	*28.1*	*9.0*	*21.0*
Net DPS (Rs)	5.5	8.6	8.6	10.4

Profitability & Valuation	2016	2017	2018E	2019E
EBITDA margin (%)	*8.3*	*13.3*	*13.2*	*14.1*
RoE (%)	*6.3*	*10.4*	*10.5*	*11.9*
RoCE (%)	*5.8*	*8.9*	*9.5*	*10.7*
EV / sales (x)	1.3	1.7	1.4	1.3
EV / EBITDA (x)	15.5	12.7	10.6	9.2
PE (x)	25.4	19.8	18.2	15.0
P / BV (x)	1.6	2.0	1.9	1.7
Net dividend yield (%)	*1.2*	*1.9*	*1.9*	*2.3*

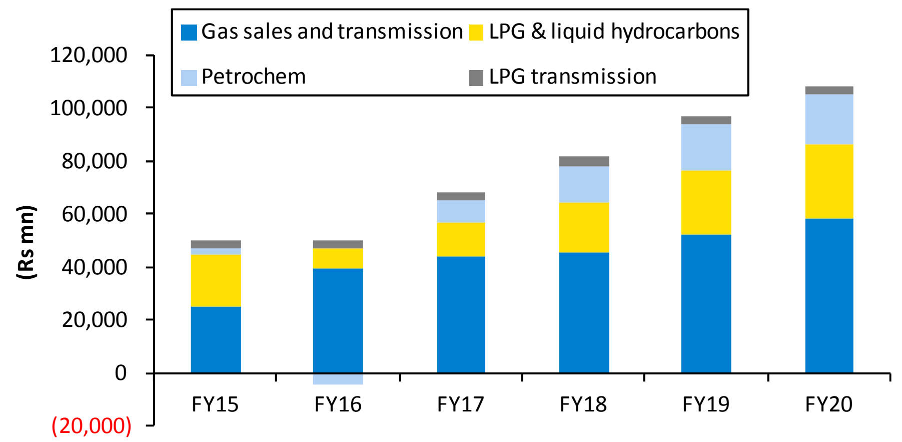
Source: Company Data; PL Research

Impressive growth prospects across segments

GAIL is set to witness improved performance across businesses. The LPG and liquid hydrocarbon (LHC) division is set to witness growth led by higher volumes, benign raw materials and improving realisation. The petrochemicals space will see volume ramp-up post stabilisation of new capacities; 86%/93%/99% utilisation in FY18/19/20E against 75% in FY17. Availability of cheap LNG is another positive. The gas transmission business will also benefit from increased gas availability due to rising LNG imports and higher domestic gas production from ONGC.

Tariff revision is another trigger which is likely to be a medium-term driver as major pipelines like *HVJ, DVPL-GREP* and *DUPL/DPPL*, which accounted for over 90% of FY16 revenues, are yet to be approved. Also, recent consultation paper by the PNGRB (gas regulator) for a unified tariff could lead to significant earnings re-rating; however, our estimates factor in 10% increase in FY18/19E.

Exhibit 1: GAIL EBIDTA ramp-up



Source: Company Data, PL Research

LPG and liquid hydrocarbon earning to scale new heights

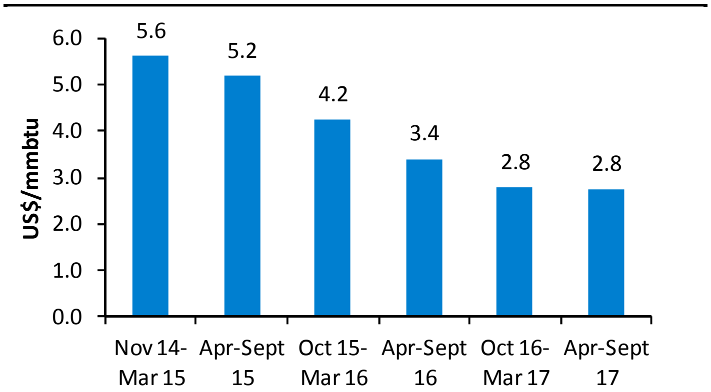
GAIL's LPG and LHC division's earnings will be led by increased volumes, benign raw material prices and improving realisation. The LPG and LHC sales volumes had come off to 1.02MTPA in FY17 against FY12 levels of 1.32MTPA due to unavailability of rich gas. However, increased gas volume from ONGC and modification in process configuration will drive higher LPG sales. We have factored in 1.21/1.28MTPA for FY18/19E.

LHC earnings will also get support from benign domestic gas prices. Domestic gas prices have been on a slide led by global LNG glut on the back of increased supplies from US and Australia. With global spot LNG prices likely to remain benign, given ample supplies, GAIL's LPG division earnings are likely to remain elevated.

Supported by favourable tailwind of higher volume, benign input price and improved realisation, we expect GAIL's LPG and liquid hydrocarbon EBITDA to rise to Rs19/23/28bn in FY18/19/20E against Rs12.8bn in FY17.

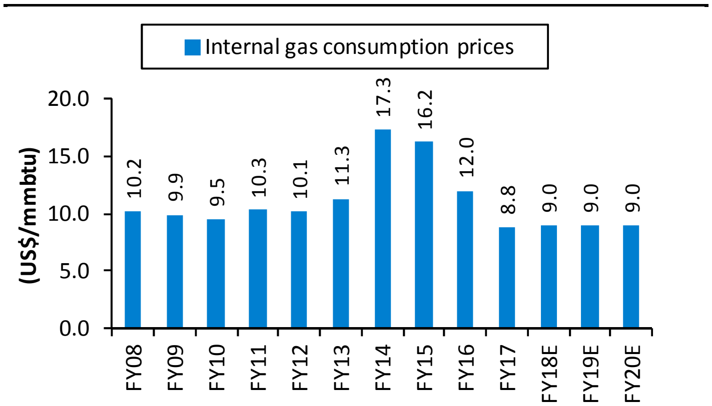
GAIL's petrochemicals business is expected to witness healthy growth led by ramp-up of the expanded capacity; current utilisation is already 100%. We have factored in volumes to increase to 700/750/800ktpa for FY18/19/20E vis-à-vis 577ktpa in FY17. Volume ramp-up, along with continued availability of affordable LNG and stable end product realisation, will drive petrochemicals EBITDA to Rs17.1bn for FY19E against Rs8.6bn in FY17.

Exhibit 2: Domestic gas prices have come off (NCV basis)



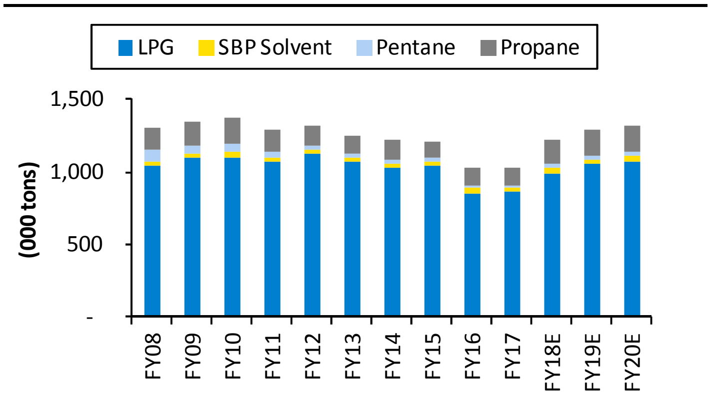
Source: Company Data, PL Research

Exhibit 3: GAIL's blended gas cost prices



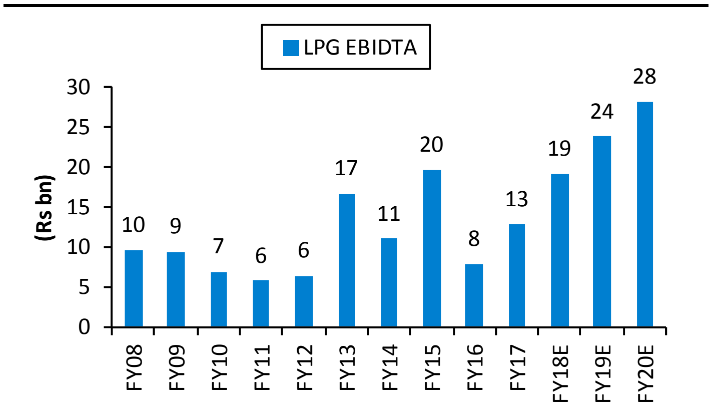
Source: Company Data, PL Research

Exhibit 4: LPG and liquid volumes will improve going ahead



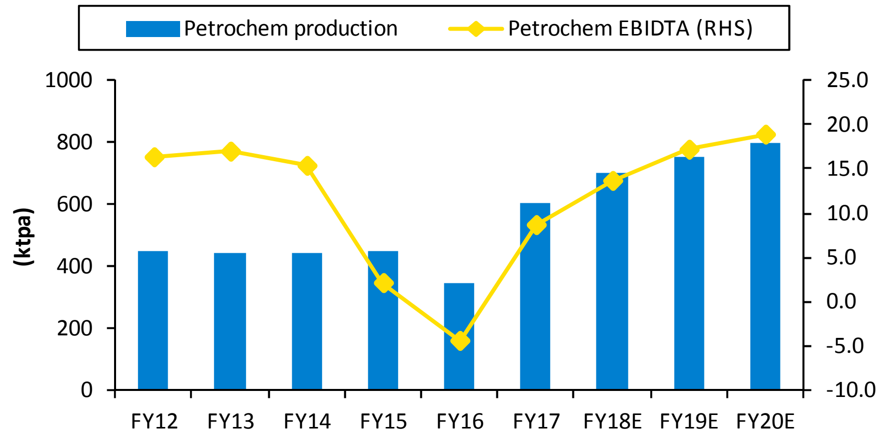
Source: Company Data, PL Research

Exhibit 5: LPG earnings contribution is also set to rise



Source: Company Data, PL Research

Exhibit 6: Petrochemicals division to report healthy earnings



Source: Company Data, PL Research

Unified tariff could be a game changer

The gas regulator, PNGRB, has recently published a consultation paper to move GAIL's key pipeline network tariffs to uniform model against current postal/zonal system. Under the unified tariff mechanism, the overall capital and operating expenditure will be pooled and distributed over the pooled volume of the inter-connected pipeline system. This follows government initiative to spur gas consumption in the Eastern India post completion of JHBDPL pipeline by FY20E. The government plans to revive multiple fertiliser plants and create city gas operations in seven cities with demand potential of ~15mmsmcd.

Despite government grant for 40% (overall capex of ~Rs120bn), under current mechanism, tariff for consumers could be as high as Rs173/mmbtu (or ~US$3/mmbtu). However, under the proposed unified tariff system, blended tariff for JHBDPL could be ~Rs57/unit. If the new tariff is approved, GAIL's earnings could see upside of 25% of FY19E earnings even as timing of the same remains uncertain.

The move will help GAIL to expand pipeline network without risk of transmission volume for the company. Also, it will help improve the returns on its capital intensive pipeline business. While any sharp tariff hikes will be opposed by those whose tariffs will see an increase, we believe continued sub-par return will drag the gas network expansion of the country.

Exhibit 7: India's gas pipeline network lags against other countries (kms)

US	1,984,321
Russia	177,700
Ukraine	36,720
China	48,502
Argentina	29,930
Iran	20,794
India	16,454

Source: PL Research

Exhibit 8: GAIL's revenue impact from tariff revision

	Volume for FY17 (mmscmd)	Current tariff (Rs/mbtu)	Unified tariff (Rs/mbtu)	Current revenue (Rs mn)	Revised revenue (Rs mn)
DBNPL	4.65	73.36	57	4,358	3,386
CJHPL	0.97	67.17	57	832	706
DBPL	1.17	40.83	57	610	852
DUPL-DPPL	12.62	24.49	57	3,948	9,190
HVJ-GREP-DVPL	33.16	25.46	57	10,785	24,146
DVPL/GREP Upgradation	28.26	53.65	57	19,369	20,578
JHBDPL		173.32		-	-
Total				**39,903**	**58,858**

Source: Company Data, PL Research

Upside risk to earnings as estimates factor in 10% hike for FY18/19E

Our estimates factor in 10% pipeline tariff hikes for FY18E/19E. PNGRB has yet to be approved for key pipelines - *HVJ, DVPL-GREP* and *DUPL/DPPL*, which accounted for over 90% of FY16 revenues. However, due to delay in formation of the PNGRB board, the tariff changes are yet to be ratified. The move for a unified tariff is significant as GAIL's key pipeline network earns miniscule returns despite PNGRB regulation of 12% post tax ROCE.

Exhibit 9: Post tax ROCE of key GAIL pipeline network

Pipeline	FY13	FY14	FY15	FY16
HVJ-GREP-DVPL (Old) DVPL-II- VDPL (Up-gradation)	1.45%	2.65%	3.37%	4.19%
Dahej - Dabhol	4.40%	1.46%	3.76%	2.69%
Dabhol- Bengaluru	-0.44%	-1.70%	-2.02%	-2.31%
Dadri - Bawana - Nangal	-1.28%	-2.31%	-1.10%	-1.94%
Chhainsa - Jhajjar	-3.19%	-4.05%	-2.91%	-3.47%
Kochi-Mangaluru/Bengaluru	N/A	-11.13%	-7.15%	-4.44%

Source: Company Data, PL Research

Weak return profile is due to sharp drop in domestic gas supplies post drop in RIL's KGD6 volumes. Also, with spot LNG prices relatively high, transmission volumes were impacted. Return ratios are also hit by risk of transmission volumes on GAIL by the regulator.

Exhibit 10: GAIL's key pipeline operate at sub optimal levels

	Length	Authorised capacity	Capacity utilisation (%)		
	(kms)	(mmscmd)	FY15	FY16	FY17
HVl·GREP-DVPL	4222	53	73	62	63
DVPL-GREP Capacity	1280	54	38	46	52
Dadri-Bawana-Nangal	886	31	13	13	15
Chhainsa-lhauar-Hissar	455	35	2	2	3
Dahej-Uran·Panvel·Dabhol	815	19.9	43	48	63
Dabhol-Bangalore	1414	16	5	6	7

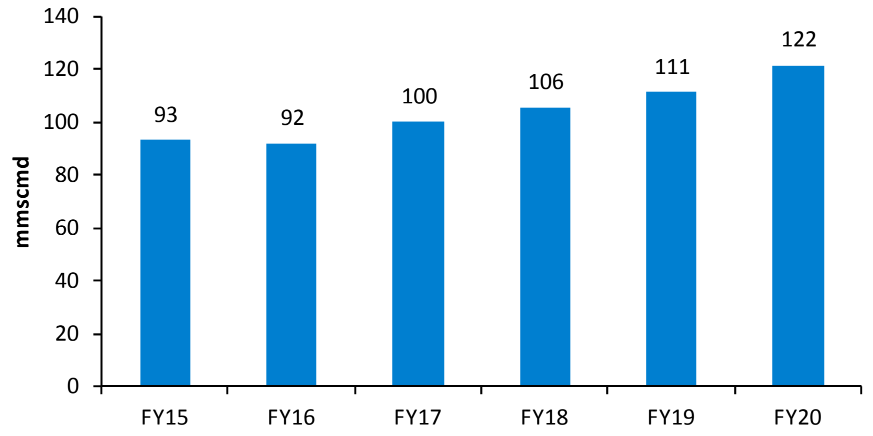
Source: Company Data, PL Research

Gas transmission network also on an upswing

GAIL's transmission volumes are on a mend – FY17 gas transmission volumes were at 100mmscmd, led by government initiatives to pool LNG supplies for the power and fertiliser sectors along with demand from other sectors. Benign spot LNG prices has led to 16% rise in LNG imports to 18MTPA in FY17. Import rise was also due to fall in domestic supplies which have forced refineries, petrochemical plants, CGD etc. to completely rely on imported LNG for their supplies. However, going ahead, ONGC's domestic gas production is set to increase which will drive transmission volumes.

Even as ONGC volumes are directed towards priority sectors like fertiliser, City Gas Distribution, power etc., refineries and petrochemicals plants have to rely on LNG imports. We expect continued buoyancy in gas transmission volumes to rise to 106/111/122mmscmd for FY18/19/20E against 100mmscmd in FY17.

Exhibit 11: Gas transmission volumes are set to rise



Source: Company Data, PL Research

US LNG contracts - Concerns abate

GAIL had contracted 3.5MTPA LNG of US shale in CY11 from *Cheniere Energy*. *Additionally, in CY13, GAIL had booked 2.3MMTPA in the Dominion Cove Point terminal for 20 years.* Part of US supplies is to start from early CY18 and some from March 2018, with 5.8MTPA offtake for FY19. However, sharp drop in crude oil and spot LNG prices have led to an overhang on GAIL's ability to place volumes and the resultant losses the company will likely incur.

Contrary to expectations, GAIL's management has clarified at their recent AGM that they have already placed ~3.5MTPA of volumes for swapping on short-term basis. The company has already entered into a medium-term contract with Shell for 0.5MTPA and placed 0.5MTPA with Chambal fertilisers for long term. With GAIL likely to use 0.5MTPA for petrochemicals business, GAIL has placed ~86% of its FY19 commitments.

Exhibit 12: GAIL has placed ~86% of its FY19 committed volume

	MTPA
Time/destination swap	3.5
Mid-term contract with Shell	0.5
Long term Chambal contract	0.5
Internal usage for petrochemicals	0.5
Unplaced volume for FY19	**0.8**

Source: Company Data, PL Research

Fertiliser and city gas operations to be the target for longer term

Even as GAIL targets time/destination swap in the short term, over long term, the company plans to place volumes for fertiliser units and City Gas operations post completion of JHBDPL pipeline by CY20. GAIL expects ~9mmscmd demand from the five fertiliser plants of *Sindri, Barauni, Gorakhpur, Ramagunda* and *Durgapur*. Besides the fertiliser plants, GAIL also plans to develop the CGD opportunities in several cities of Kolkata, Varanasi, Patna, Ranchi, Jamshedpur, Bhubaneswar, Cuttack where demand of ~4-5mmscmd is possible.

The pipeline will also open up new growth opportunities for GAIL as the company plans to add 2mn PNG customers. The company expects new development of 25 industrial clusters in UP, Bihar, Jharkhand, West Bengal and Odisha. All these augurs well for GAIL's long-term growth.

Exhibit 1: GAIL's East India foray

Source: Company Data, PL Research

We accordingly reduce our risks on US LNG contracts. However, with the company already contracting 96% of FY19 volumes, we now factor in losses on 2MTPA volumes for two years based on US$1/mmbtu losses. Accordingly, we cut our losses to Rs6/sh in our PT (Rs 15/sh earlier based on US$1/mmbtu loss on entire portfolio for three years).

At current levels of US shale gas and Brent, we calculate premium at US$0.3/mmbtu; potential impact is Rs6/sh. However, with reports of production cut by OPEC countries along with slowing upstream capex, leading to higher crude oil prices, US shale contract overhang will dissipate.

Exhibit 13: US shale vis-à-vis Rasgas contract price

HH ($/mmbtu)	**2**	**2.25**	**2.5**	**3**	**3.5**	**3.75**	**4.2**
LNG (115% of HH)	2.3	2.6	2.9	3.5	4	4.3	4.8
Fixed cost	3	3	3	3	3	3	3
Shipping	2	2	2	2	2	2	2
US contract	7.3	7.6	7.9	8.5	9	9.3	9.8
($/bbl)							
Brent	40	45	50	55	60	65	70
Ras gas base price ($/mmbtu)	5.2	5.9	6.5	7.2	7.8	8.5	9.1
Shipping	1	1	1	1	1	1	1
Rasgas landed ($/mmbtu)	6.2	6.9	7.5	8.2	8.8	9.5	10.1
Premium over Rasgas ($/mmbtu)	1.1	0.7	0.4	0.3	0.2	-0.1	-0.3

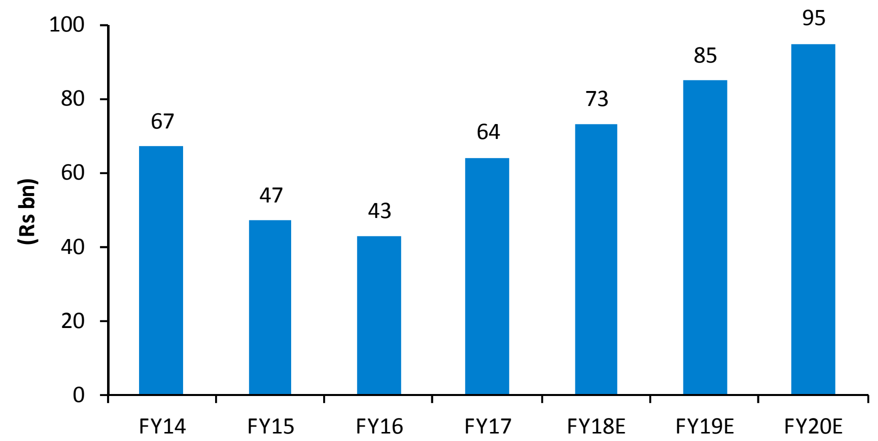
Source: Company Data, PL Research

Financials

We expect GAIL's earnings to rise 16% over FY18-20E led by:

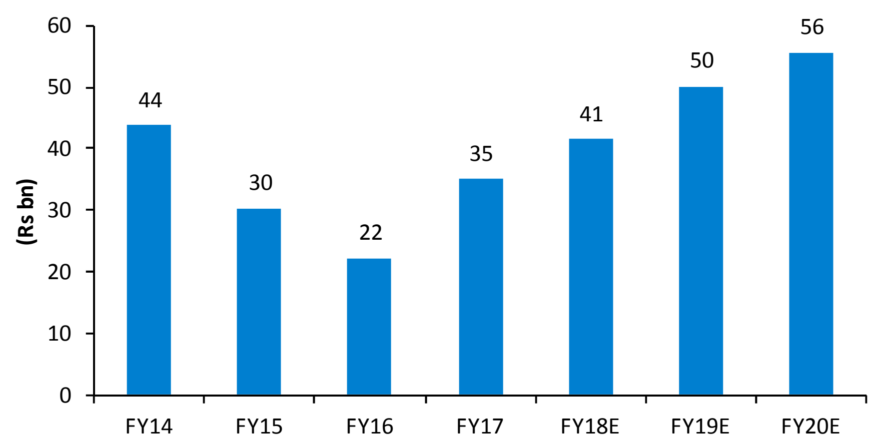
- Improved profitability at the petrochemicals segment as higher production and lower gas cost will drive EBITDA to Rs13.6/17.5bn for FY18/19E against Rs8.6bn in FY17.
- Pipeline transmission earnings are also set to rise led by gradual rise in volumes and tariff revision; EBITDA is to rise to Rs45.4/52.7bn for FY18/19E against Rs43.8bn for FY17.
- LPG and liquid hydrocarbons earnings are likely to remain healthy supported by higher sales volumes and increased realisation; we expect EBITDA to rise to Rs19.1/23.7bn for FY18/19E against Rs12.8bn for FY17.

Exhibit 14: GAIL's EBITDA to rise sharply



Source: Company Data, PL Research

Exhibit 15: Earnings will follow strong operating performance



Source: Company Data, PL Research

Exhibit 2: Key assumptions

	FY15	FY16	FY17	FY18E	FY19E	FY20E
Gas transmission (mmscmd)	93.0	92.0	100.0	105.5	111.2	121.6
PE sales (ktpa)	441	333	577	700	750	800
Subsidy share (Rs m)	-10,000	na	na	na	na	na
HDPE price ($/ton)	1,537	1,258	1,200	1,200	1,200	1,200
Net LPG realisation ($/ton)	617	453	417	475	500	525
INR/USD	61.1	65.4	67.1	64.5	65.0	67.0

Source: Company Data, PL Research

Sensitivity and risks

GAIL, with its diverse set of businesses, has been impacted by multiple factors like 1) Change in domestic and imported LNG prices and 2) Change in realisation of petrochemicals and LPG.

Exhibit 16: GAIL sensitivity analysis

Base case	Sensitivity	Base case FY19E EPS	FY19E EPS	% change
US$9/mmbtu imported LNG	US$1/mmbtu higher price	29.7	27.9	-6.1%
US$6/mmbtu blended domestic gas	US$1/mmbtu higher price	29.7	28.2	-5.1%
US$1,200/ton HDPE price	US$100/ton higher price	29.7	32	7.7%
US$500/ton LPG price	US$100/ton LPG price	29.7	32.6	9.8%

Source: Company Data, PL Research

Valuation and View

We value GAIL on DCF-based price target of Rs510. Our PT is based on a core value of Rs436 and value of investments of Rs83.

We assume a WACC of 10.0% and our model factors in a risk-free rate of 6.5%, risk premium of 5%, beta of 1.1 and terminal growth rate of 2%. We value the company's strategic investments in *IGL, ONGC, MGL* and *PLNG* at a 25% discount to market price. We have also adjusted for losses in the US shale business at Rs6/sh, as NPV of losses for FY20/21E is based on US$1/mmbtu on 2MTPA. For FY19, the company has already tied in 86% of its committed volumes.

Exhibit 17: GAIL earnings change

(Rs mn)	FY18E			FY19E		
	New	Old	*% chg*	New	Old	*% chg*
Net sales	553,244	550,951	*0.4*	598,887	621,696	*(3.7)*
EBIDTA	73,068	74,105	*(1.4)*	84,720	80,791	*4.9*
PAT	41,452	40,839	*1.5*	50,166	46,541	*7.8*

Source: Company Data, PL Research

Exhibit 18: GAIL key assumptions change

	FY18E			FY19E		
	New	Old	*% chg*	New	Old	*% chg*
LPG net realisation ($/ton)	475	425	*11.8*	500	450	*11.1*
LPG &liquid hydro cargon volume (MTPA)	1.28	1.15	*11.8*	1.36	1.22	*11.6*
PE realisation ($/ton)	1,200	1200	-	1,200	1200	-
Gas transmission volume (mmscmd)	105.5	105.5	-	111.2	111.2	-

Source: Company Data, PL Research

Income Statement (Rs m)

Y/e March	2016	2017	2018E	2019E
Net Revenue	**517,213**	**481,489**	**553,244**	**598,887**
Raw Material Expenses	417,953	363,509	423,656	454,458
Gross Profit	99,260	117,979	129,588	144,429
Employee Cost	—	—	—	—
Other Expenses	56,459	53,885	56,520	59,710
EBITDA	**42,801**	**64,094**	**73,068**	**84,720**
Depr. & Amortization	13,098	13,968	15,052	16,934
Net Interest	(917)	(6,969)	(3,852)	(7,089)
Other Income	8,916	11,763	8,386	11,615
Profit before Tax	**30,620**	**57,095**	**61,869**	**74,875**
Total Tax	8,355	19,079	20,417	24,709
Profit after Tax	**22,264**	**38,016**	**41,452**	**50,166**
Ex-Od items / Min. Int.	—	—	—	—
Adj. PAT	**22,264**	**38,016**	**41,452**	**50,166**
Avg. Shares O/S (m)	**1,268.5**	**1,691.3**	**1,691.3**	**1,691.3**
EPS (Rs.)	**17.6**	**22.5**	**24.5**	**29.7**

Balance Sheet Abstract (Rs m)

Y/e March	2016	2017	2018E	2019E
Shareholder's Funds	350,946	381,494	405,504	434,562
Total Debt	115,038	76,370	74,770	76,103
Other Liabilities	40,723	51,147	59,190	68,923
Total Liabilities	**506,706**	**509,010**	**539,463**	**579,588**
Net Fixed Assets	318,871	323,096	338,650	383,996
Goodwill	—	—	—	—
Investments	127,187	130,930	137,477	144,351
Net Current Assets	60,648	54,984	63,336	51,241
Cash & Equivalents	*18,408*	*13,992*	*50,597*	*46,280*
Other Current Assets	*93,507*	*94,681*	*84,967*	*90,631*
Current Liabilities	*51,268*	*53,690*	*72,228*	*85,670*
Other Assets	—	—	—	—
Total Assets	**506,706**	**509,010**	**539,463**	**579,588**

Cash Flow Abstract (Rs m)

Y/e March	2016	2017	2018E	2019E
C/F from Operations	53,938	50,245	84,756	74,878
C/F from Investing	(8,385)	(17,560)	(30,606)	(62,280)
C/F from Financing	(24,208)	(45,785)	(10,999)	(10,041)
Inc. / Dec. in Cash	21,345	(13,100)	43,151	2,556
Opening Cash	12,325	18,408	13,992	50,597
Closing Cash	18,408	13,992	50,597	46,280
FCFF	36,157	39,504	51,716	26,698
FCFE	13,225	835	50,116	28,031

Quarterly Financials (Rs m)

Y/e March	Q3FY17	Q4FY17	Q1FY18	Q2FY18E
Net Revenue	**123,186**	**136,741**	**115,704**	**121,137**
EBITDA	**17,261**	**15,553**	**18,994**	**21,301**
% of revenue	*14.0*	*11.4*	*16.4*	*17.6*
Depr. & Amortization	3,579	3,471	3,451	3,500
Net Interest	(1,155)	(4,458)	(145)	—
Other Income	2,756	4,677	1,158	1,000
Profit before Tax	**14,836**	**16,539**	**15,687**	**17,801**
Total Tax	5,007	6,058	5,431	5,933
Profit after Tax	**9,829**	**10,482**	**10,256**	**11,868**
Adj. PAT	**9,829**	**2,601**	**10,256**	**11,868**

Key Financial Metrics

Y/e March	2016	2017	2018E	2019E
Growth				
Revenue (%)	(8.8)	(6.9)	14.9	8.3
EBITDA (%)	(8.9)	49.8	14.0	15.9
PAT (%)	(26.7)	70.8	9.0	21.0
EPS (%)	(26.7)	28.1	9.0	21.0
Profitability				
EBITDA Margin (%)	8.3	13.3	13.2	14.1
PAT Margin (%)	4.3	7.9	7.5	8.4
RoCE (%)	5.8	8.9	9.5	10.7
RoE (%)	6.3	10.4	10.5	11.9
Balance Sheet				
Net Debt : Equity	0.3	0.2	0.1	0.1
Net Wrkng Cap. (days)	16	19	7	6
Valuation				
PER (x)	25.4	19.8	18.2	15.0
P / B (x)	1.6	2.0	1.9	1.7
EV / EBITDA (x)	15.5	12.7	10.6	9.2
EV / Sales (x)	1.3	1.7	1.4	1.3
Earnings Quality				
Eff. Tax Rate	27.3	33.4	33.0	33.0
Other Inc / PBT	29.1	20.6	13.6	15.5
Eff. Depr. Rate (%)	4.4	4.5	4.4	4.3
FCFE / PAT	59.4	2.2	120.9	55.9

Source: Company Data, PL Research.

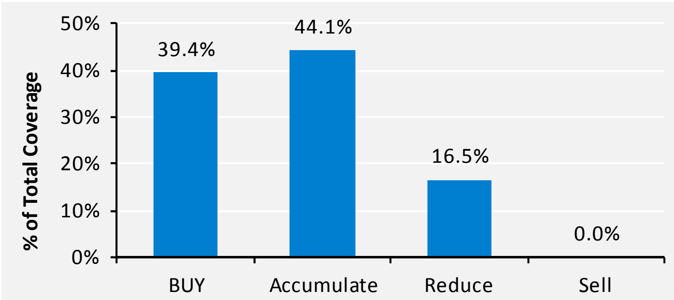
Key Operating Metrics

Y/e March	2016	2017	2018E	2019E
Gas transmission (mmscmd)	92	100	106	111
Petrochem sales (ktpa)	333,758	577,000	700,000	750,000
Gas sales (mmscmd)	66	70	72	78

Source: Company Data, PL Research.

Prabhudas Lilladher Pvt. Ltd.
3rd Floor, Sadhana House, 570, P. B. Marg, Worli, Mumbai-400 018, India
Tel: (91 22) 6632 2222 Fax: (91 22) 6632 2209

Rating Distribution of Research Coverage



PL's Recommendation Nomenclature

BUY	:	Over 15% Outperformance to Sensex over 12-months
Accumulate	:	Outperformance to Sensex over 12-months
Reduce	:	Underperformance to Sensex over 12-months
Sell	:	Over 15% underperformance to Sensex over 12-months
Trading Buy	:	Over 10% absolute upside in 1-month
Trading Sell	:	Over 10% absolute decline in 1-month
Not Rated (NR)	:	No specific call on the stock
Under Review (UR)	:	Rating likely to change shortly

DISCLAIMER/DISCLOSURES

ANALYST CERTIFICATION

We/I, Mr. Avishek Datta (MBA), Research Analysts, authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

Terms & conditions and other disclosures:

Prabhudas Lilladher Pvt. Ltd, Mumbai, India (hereinafter referred to as "PL") is engaged in the business of Stock Broking, Portfolio Manager, Depository Participant and distribution for third party financial products. PL is a subsidiary of Prabhudas Lilladher Advisory Services Pvt Ltd. which has its various subsidiaries engaged in business of commodity broking, investment banking, financial services (margin funding) and distribution of third party financial/other products, details in respect of which are available at www.plindia.com

This document has been prepared by the Research Division of PL and is meant for use by the recipient only as information and is not for circulation. This document is not to be reported or copied or made available to others without prior permission of PL. It should not be considered or taken as an offer to sell or a solicitation to buy or sell any security.

The information contained in this report has been obtained from sources that are considered to be reliable. However, PL has not independently verified the accuracy or completeness of the same. Neither PL nor any of its affiliates, its directors or its employees accepts any responsibility of whatsoever nature for the information, statements and opinion given, made available or expressed herein or for any omission therein.

Recipients of this report should be aware that past performance is not necessarily a guide to future performance and value of investments can go down as well. The suitability or otherwise of any investments will depend upon the recipient's particular circumstances and, in case of doubt, advice should be sought from an independent expert/advisor.

Either PL or its affiliates or its directors or its employees or its representatives or its clients or their relatives may have position(s), make market, act as principal or engage in transactions of securities of companies referred to in this report and they may have used the research material prior to publication.

PL may from time to time solicit or perform investment banking or other services for any company mentioned in this document.

PL is in the process of applying for certificate of registration as Research Analyst under Securities and Exchange Board of India (Research Analysts) Regulations, 2014

PL submits that no material disciplinary action has been taken on us by any Regulatory Authority impacting Equity Research Analysis activities.

PL or its research analysts or its associates or his relatives do not have any financial interest in the subject company.

PL or its research analysts or its associates or his relatives do not have actual/beneficial ownership of one per cent or more securities of the subject company at the end of the month immediately preceding the date of publication of the research report.

PL or its research analysts or its associates or his relatives do not have any material conflict of interest at the time of publication of the research report.

PL or its associates might have received compensation from the subject company in the past twelve months.

PL or its associates might have managed or co-managed public offering of securities for the subject company in the past twelve months or mandated by the subject company for any other assignment in the past twelve months.

PL or its associates might have received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months.

PL or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months

PL or its associates might have received any compensation or other benefits from the subject company or third party in connection with the research report.

PL encourages independence in research report preparation and strives to minimize conflict in preparation of research report. PL or its analysts did not receive any compensation or other benefits from the subject Company or third party in connection with the preparation of the research report. PL or its Research Analysts do not have any material conflict of interest at the time of publication of this report.

It is confirmed that Mr. Avishek Datta (MBA), Research Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

The Research analysts for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

The research analysts for this report has not served as an officer, director or employee of the subject company PL or its research analysts have not engaged in market making activity for the subject company

Our sales people, traders, and other professionals or affiliates may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed herein, and our proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all o the foregoing, among other things, may give rise to real or potential conflicts of interest.

PL and its associates, their directors and employees may (a) from time to time, have a long or short position in, and buy or sell the securities of the subject company or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company or act as an advisor or lender/borrower to the subject company or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

DISCLAIMER/DISCLOSURES (FOR US CLIENTS)

ANALYST CERTIFICATION

The research analysts, with respect to each issuer and its securities covered by them in this research report, certify that: All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and No part of his or her or their compensation was, is or will be directly related to the specific recommendation or views expressed in this research report

Terms & conditions and other disclosures:

This research report is a product of Prabhudas Lilladher Pvt. Ltd., which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution by Prabhudas Lilladher Pvt. Ltd. only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor.

In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, Prabhudas Lilladher Pvt. Ltd. has entered into an agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo").

Transactions in securities discussed in this research report should be effected through Marco Polo or another U.S. registered broker dealer.

SREESANKAR RADHAKRISHNAN

Digitally signed by SREESANKAR RADHAKRISHNAN
DN: c=IN, o=Personal , CID - 5881668,
2.5.4.20=d574f7722fdeee24c535d598f047d65aa6618ccdab8ef8e84
4973412c3bebd70, postalCode=400104, st=Maharashtra,
serialNumber=8859da2df03122989b585ad520865a4f59be69fbc1b7
ba2c5315941f987f41de, cn=SREESANKAR RADHAKRISHNAN
Date: 2017.10.10 11:32:26 +05'30'