

# Federal Bank

## Continues to improve quarter after quarter

October 16, 2017

Pritesh Bumb

priteshbumb@plindia.com / +91-22-66322232

R Sreesankar

rsreesankar@plindia.com / +91-22-66322214

Vidhi Shah

vidhishah@plindia.com / +91-22-66322258

Rating	BUY
Price	Rs125
Target Price	Rs144
Implied Upside	15.2%
Sensex	32,634
Nifty	10,231

(Prices as on October 16, 2017)

### Trading data

Market Cap. (Rs bn)	242.1
Shares o/s (m)	1,939.6
3M Avg. Daily value (Rs m)	1096.5

### Major shareholders

Promoters	0.00%
Foreign	36.70%
Domestic Inst.	34.91%
Public & Other	28.39%

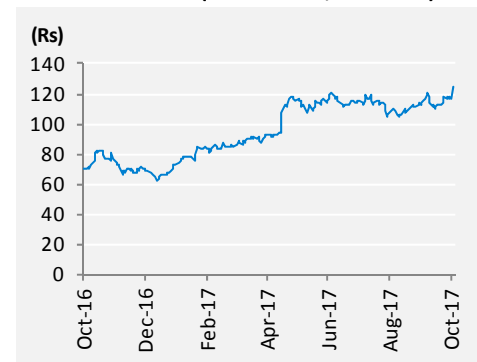
### Stock Performance

(%)	1M	6M	12M
Absolute	8.4	34.8	75.9
Relative	7.3	24.0	58.0

### How we differ from Consensus

EPS (Rs)	PL	Cons.	% Diff.
2018	5.9	6.0	-2.2
2019	8.0	7.7	2.9

### Price Performance (RIC: FED.BO, BB: FB IN)



Source: Bloomberg

**FB reported strong net earnings of Rs2.64bn (first quarter post Q4FY15) mainly led by strong NII growth of ~24% and loan growth of ~25% YoY (despite higher base of bought loan book). Credit cost which had remained elevated for the last few quarters is stabilizing and bank expect it to remain at steady range for next few quarters. Bank continues to focus on upgrading technology, improving processes and adding feet on street which should culminate into better loan growth and cross sell for fees which should have higher opex. We see return ratios moving up gradually and risks of asset quality to be limited and hence retain our positive view with TP of Rs144 (up from Rs138) based on 2.2x Sep-19 ABV (rolled over from Mar-19).**

■ **Strong top line but offset by slightly slower other income and higher opex:** NII grew strong ~24% YoY as bank benefitted from lower cost of funds and continued strong loan growth of 25% YoY. As a result, reported margins were up by 18bps QoQ to 3.31% (H1FY18 3.25%). Management expects margin to be in similar band of 3.25-3.3% in FY18. PPOP growth of ~23% YoY was relatively softer on the back of slower other income and higher other opex (loan buyout book management fees, technology up gradation & payout to DSA & Sub).

■ **Loan growth of 25% YoY broad based across segments:** Loan growth continued to be robust at 25% YoY led by corporate (38% YoY, 4% QoQ) & retail (24% YoY, 6% QoQ) with also uptick on Agri (17% YoY, 5% QoQ) and SME loan growth (8.7% YoY, 5% QoQ). Bank continues to focus on the mid-market & biz banking segment, while also seeing strong traction in most retail segments (new biz origination of Rs16.9bn v/s 10bn QoQ). Bank expects most segments to continue grow in mid 20s in FY18.

■ **Liabilities facing challenges; asset quality see stability:** Deposits growth was slower at 13% YoY with CASA growth of 18% YoY, but has seen momentum significantly slowing down with CASA ratio at 32.9% (down 50bps QoQ). On asset quality, slippages were relatively lower at Rs2.84bn v/s 4.25bn in Q1FY18 and were mainly s from retail & agri, while was lower from corporate & SME in-line with guidance. Bank expects retail slippages to come off, while agri slippages to remain steady but expects credit cost to remain at similar trajectory for next 2-3 quarters.

Key financials (Y/e March)	2016	2017	2018E	2019E
Net interest income	25,077	30,526	37,005	44,226
Growth (%)	5.3	21.7	21.2	19.5
Operating profit	14,238	19,249	24,715	30,052
PAT	4,757	8,308	10,754	15,447
EPS (Rs)	2.8	4.8	5.9	8.0
Growth (%)	(52.8)	74.1	21.7	35.7
Net DPS (Rs)	0.7	—	1.1	1.5

Profitability & Valuation	2016	2017	2018E	2019E
NIM (%)	2.83	2.91	2.97	3.07
RoAE (%)	6.0	9.8	10.1	12.0
RoAA (%)	0.54	0.79	0.86	1.07
P / BV (x)	2.7	2.4	2.0	1.8
P / ABV (x)	3.2	2.8	2.2	2.0
PE (x)	45.0	25.9	21.3	15.7
Net dividend yield (%)	0.6	—	0.9	1.2

Source: Company Data; PL Research

**Exhibit 1: Q2FY18 – Robust earnings led by lower provisions and strong core performance**

	(Rs m)	Q2FY18	Q2FY17	YoY gr. (%)	Q1FY18	QoQ gr. (%)
<i>NII grew better at 23.8% on robust loan growth of ~25% and benefit from cost of funds</i>	Interest Income	23,796	20,663	15.2	23,241	2.4
	Interest Expended	14,807	13,401	10.5	15,234	(2.8)
	<b>Net interest income (NII)</b>	<b>8,989</b>	<b>7,262</b>	<b>23.8</b>	<b>8,007</b>	<b>12.3</b>
	-Treasury income	750	860	(12.8)	1,120	(33.0)
<i>Other income saw good growth due to loan processing and TPP fee; whereas commission fees were tepid</i>	Other income	2,872	2,616	9.8	3,291	(12.7)
	<b>Total income</b>	<b>11,861</b>	<b>9,878</b>	<b>20.1</b>	<b>11,298</b>	<b>5.0</b>
	Operating expenses	6,029	5,128	17.6	5,719	5.4
	-Staff expenses	3,127	2,916	7.3	2,985	4.8
<i>Opex continued to be high and shall remain at mid 20% growth YoY in FY18 as bank expects to do investment in many areas</i>	-Other expenses	2,902	2,212	31.2	2,735	6.1
	<b>Operating profit</b>	<b>5,832</b>	<b>4,750</b>	<b>22.8</b>	<b>5,579</b>	<b>4.5</b>
	Core operating profit	5,082	3,890	30.6	4,459	14.0
	Total provisions	1,768	1,684	5.0	2,364	(25.2)
	<b>Profit before tax</b>	<b>4,064</b>	<b>3,066</b>	<b>32.6</b>	<b>3,214</b>	<b>26.5</b>
	Tax	1,427	1,053	35.6	1,113	28.3
	<b>Profit after tax</b>	<b>2,637</b>	<b>2,013</b>	<b>31.0</b>	<b>2,102</b>	<b>25.5</b>
<i>Advances grew at 25% YoY from all segments</i>	<b>Balance sheet (Rs m)</b>					
	Deposits	9,72,108	8,62,991	12.6	9,58,390	1.4
	Advances	8,06,459	6,46,869	24.7	7,63,070	5.7
<i>Margins improved sequentially on high CD ratio and bank did refinancing of PSL</i>	<b>Ratios (%)</b>					
	<b>Profitability ratios</b>					
	<b>NIM</b>	<b>3.3</b>	<b>3.3</b>	<b>-</b>	<b>3.1</b>	<b>18</b>
	RoaA	1.0	0.9	8	0.8	20
	RoaE	9.0	9.5	(52)	7.2	176
<i>Asset quality was stable on lower slippages from corporate and SME segment</i>	<b>Asset Quality</b>					
	Gross NPL (Rs m)	19,490	18,197	7.1	18,679	4.3
	Net NPL (Rs m)	10,664	10,397	2.6	10,613	0.5
	Gross NPL ratio	2.4	2.8	(39)	2.4	(3)
	Net NPL ratio	1.3	1.6	(29)	1.4	(7)
<i>Bank improved its PCR by 210bps thus strengthening its balance sheet</i>	Coverage ratio (Calc)	45.3	42.9	242	43.2	210
<i>CASA Ratio reduced by 51bps QoQ as bank struggles to grow its CASA deposits</i>	<b>Business &amp; Other Ratios</b>					
	Low-cost deposit mix	32.9	31.0	189	33.4	(51)
	Cost-income ratio	50.8	51.9	(108)	50.6	21
	Non int. inc / total income	24.2	26.5	(227)	29.1	(491)
	Credit deposit ratio	83.0	75.0	800	79.6	334
	CAR	14.6	12.9	178	15.3	(65)
	Tier-I	14.1	12.2	187	14.7	(63)

Source: Company Data, PL Research

## Q2FY18 Concall Highlights

### Balance sheet – Growth/outlook:

- **Loan book** – Loan book grew by ~25% YoY largely driven by corporate book (38% YoY) where 70% of incremental loans were A rated and above having ATS of Rs400-600mn. Incremental average yield for corporate book is 9.25%. Retail excl. gold also showed better growth of ~20% YoY with Rs16.9bn disbursements this quarter (Rs10bn in Q1FY18). Incremental average yield on home loans is 9.20-9.25%. 77% of loans are on MCLR regime. **Outlook:** Management continues to see its credit growth at better pace and expects to grow in better yield products and sees opportunity in SME and mid market segments, while remaining cautious in their growth in retail unsecured portfolio.
- **Liabilities** - CASA deposits grew at 17.7% YoY with both CA and SA showing decent growth however the bank faces challenges in growing these deposits. However, its average CA deposit has seen 14% YoY growth. Bank expects to grow its SA deposits at 20% YoY in FY18 and it is not willing to increase cost of SA to gain market share. CASA Ratio reduced by 51bps QoQ to 32.9% in Q2FY18.

### Margins:

- Margins improved by 18bps QoQ at 3.31% partly on benefit coming from refinancing of PSL of Rs20bn this quarter and high CD ratio. **Outlook:** Have maintained guidance of 3.20%-3.25% for margins in FY18 on high quality loan growth and also growing in high yielding products.

### Fees/Opex:

- **Fees** – Core fees growth was decent at 23% YoY mainly on loan processing fees and TPP fees from selling of insurance and mutual fund products whereas commission fees was slightly tepid.
- **Opex** – Opex cost was slightly high at 17.6% YoY mainly on continued marketing and technology expenses and also specific people related expenditure. **Outlook** - Bank will continue to see high expenses in FY18 as it sees many areas which require investment. C/I Ratio will remain in the range of 50% for next 6 quarters.

### Asset quality:

- **Slippages** – Slippages were higher than usual run rate mainly in retail and agri segments as demonetisation and farm waiver impact continued. Agri slippages have reached the peak and shall normalise from here on, whereas retail non education slippages have started to come down. Retail education slippages will be high in Q3FY18 as loan waiver is expected from Kerala Govt. SME saw lower slippages than the usual run rate as bank has addressed issues to the cashew and rubber accounts that were problematic.
- **Restructured advances** – Outstanding standard restructured book slightly increased to Rs13.4 bn and constitutes 1.7% of advances.
- Bank has exposure to one account out of 40 NCLT accounts having an exposure of Rs220 mn of which Rs150mn is part of investment in which 50% is provided and the remaining credit portion is fully provided.

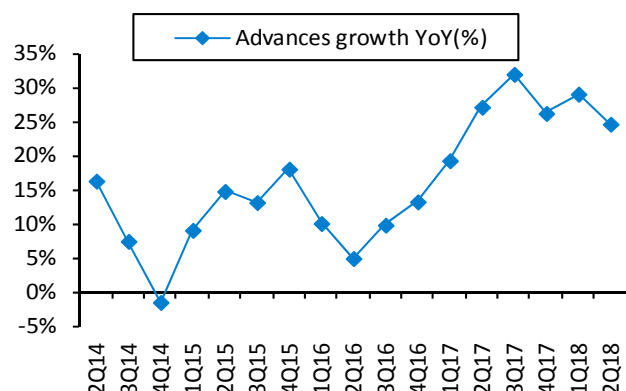
**Exhibit 2: Break-up of Advances portfolio**

Advances break-up (Rs m)	Q2FY18	Q2FY17	YoY gr. (%)	Q1FY18	QoQ gr. (%)
<b>Advances</b>	<b>8,40,960</b>	<b>6,68,870</b>	<b>25.7</b>	<b>8,05,420</b>	<b>4.4</b>
Retail	2,32,550	1,99,610	16.5	2,22,260	4.6
SME	1,76,510	1,49,550	18.0	1,67,860	5.2
Agriculture	84,150	67,920	23.9	79,480	5.9
Corporate	3,47,750	2,51,790	38.1	3,35,820	3.6
<b>Retail Loans break-up</b>					
Housing	1,00,800	83,510	20.7	94,040	7.2
Gold	19,210	22,590	(15.0)	20,200	(4.9)
Mortgage	42,190	35,030	20.4	40,290	4.7
Others	70,350	58,480	20.3	67,730	3.9

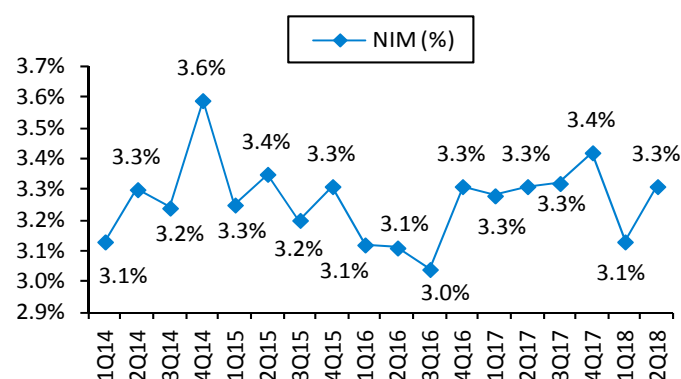
Source: Company Data, PL Research

Strong growth seen in A and above rated corporate having turnover of Rs4bn and above.

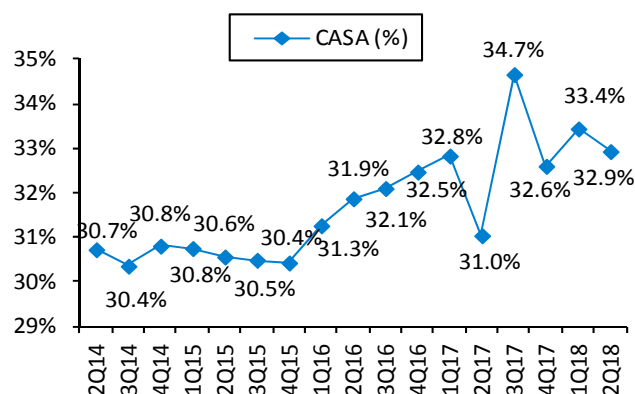
Gold book continues to de-grow, while strong growth continued from housing and mortgage lending incrementally at 9.20-9.25%

**Exhibit 3: Advances growth of ~25% YoY led by all segments**


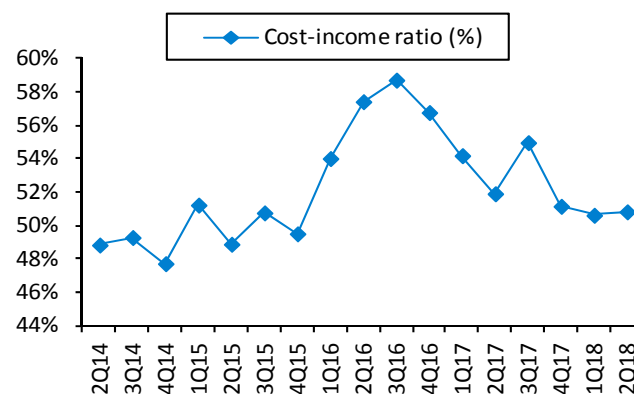
Source: Company Data, PL Research

**Exhibit 4: NIMs improved by 18bps sequentially on high CD ratio and on refinancing of PSL**


Source: Company Data, PL Research

**Exhibit 5: CASA grew slow at ~18% YoY as it faces challenges**


Source: Company Data, PL Research

**Exhibit 6: C/I will continue to remain in the range of 50% as bank expects high opex in FY18**


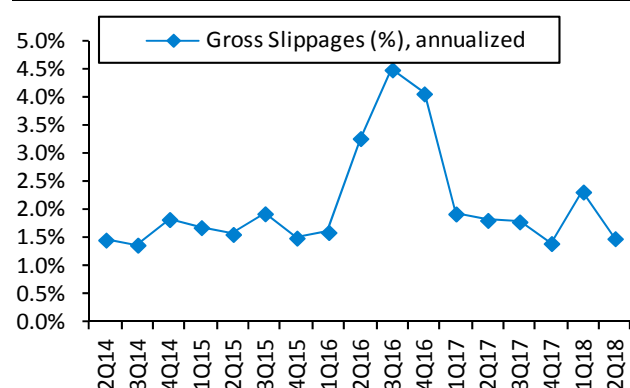
Source: Company Data, PL Research

**Exhibit 7: Asset quality improved on lower slippages from large corporate and SME segments, while Retail and Agri continued to see the run rate increasing**

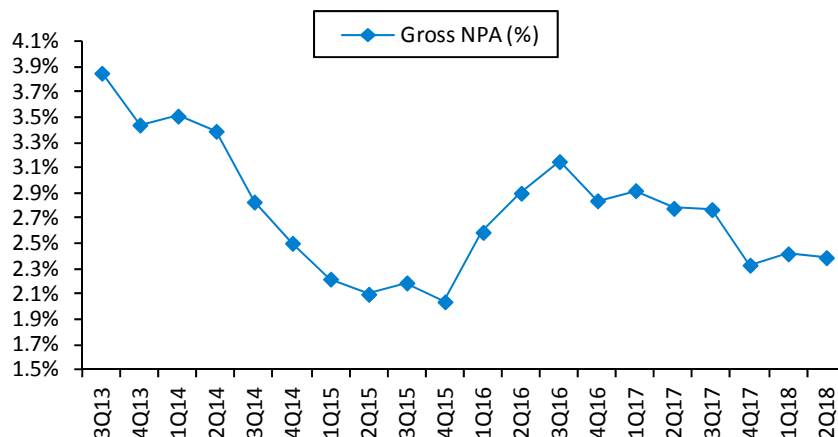
Movement of NPL	Q2FY18	Q2FY17	YoY gr. (%)	Q1FY18	QoQ gr. (%)
Opening advances	18,197	14,987	21.4	17,473	4.1
Additions	2,890	5,710	(49.4)	2,680	7.8
Reduction	1,572	3,856	(59.2)	1,956	(19.6)
<b>Closing</b>	<b>19,516</b>	<b>16,841</b>	<b>15.9</b>	<b>18,197</b>	<b>7.2</b>
<b>Slippages (%)</b>	<b>1.41</b>	<b>1.66</b>		<b>2.23</b>	
<b>Segmental fresh slippages:</b>					
Retail	1,060	630	68.3	970	9.3
Agri	510	260	96.2	450	13.3
SME	1,070	1,350	(20.7)	1,140	(6.1)
Corporate	200	420	(52.4)	1,690	(88.2)
<b>Retail (% annualized)</b>	<b>1.82</b>	<b>1.26</b>	<b>44.4</b>	<b>1.75</b>	<b>4.4</b>
<b>Agri (% annualized)</b>	<b>2.42</b>	<b>1.53</b>	<b>58.3</b>	<b>2.26</b>	<b>7.0</b>
<b>SME (% annualized)</b>	<b>2.42</b>	<b>3.33</b>	<b>(27.1)</b>	<b>2.72</b>	<b>(10.7)</b>
<b>Corporate (% annualized)</b>	<b>0.23</b>	<b>0.67</b>	<b>(65.5)</b>	<b>2.01</b>	<b>(88.6)</b>

Source: Company Data, PL Research

**Exhibit 8: Delinquency rate improved on low slippages from corporate & SME...**



**Exhibit 10: Asset quality remains stable and should improve from here on as retail and agri slippages start to normalise**



Source: Company Data, PL Research

**Exhibit 11: ROEs to see gradual improvement over FY18E-20E as business operating parameters showing some signs of improvement**

ROA Tree	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
NII/Assets	3.6%	3.1%	3.2%	3.2%	3.0%	3.1%	3.1%	3.2%	3.3%
Fees/Assets	0.8%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%	0.9%
Investment profits/Assets	0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	0.2%	0.2%	0.1%
Net revenues/Assets	4.6%	4.1%	4.1%	4.4%	4.0%	4.2%	4.2%	4.3%	4.3%
Opex/Assets	-1.8%	-1.8%	-2.0%	-2.2%	-2.3%	-2.2%	-2.1%	-2.1%	-2.1%
Provisions/Assets	-0.6%	-0.4%	-0.4%	-0.1%	-0.9%	-0.6%	-0.7%	-0.5%	-0.4%
Taxes/Assets	-0.7%	-0.6%	-0.5%	-0.7%	-0.3%	-0.5%	-0.5%	-0.6%	-0.7%
Total Costs/Assets	-3.1%	-2.8%	-3.0%	-3.0%	-3.4%	-3.3%	-3.3%	-3.1%	-3.1%
ROA	1.4%	1.3%	1.2%	1.4%	0.6%	0.8%	0.9%	1.1%	1.3%
Equity/Assets	9.9%	9.5%	9.4%	9.9%	9.6%	8.6%	8.9%	9.3%	8.9%
ROE	14.4%	13.9%	12.6%	13.7%	6.0%	9.8%	10.2%	12.0%	14.2%

Source: Company Data, PL Research

**Exhibit 12: Change in estimates table – We tweak our estimates in lower business growth, reduced other income and slightly higher opex and credit costs**

(Rs m)	Old		Revised		% Change		Introducing
	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E	FY20E
Net interest income	37,333	44,818	37,005	44,226	(0.9)	(1.3)	37,333
Operating profit	25,350	31,568	24,715	30,052	(2.5)	(4.8)	25,350
Net profit	11,880	16,506	10,755	15,449	(9.5)	(6.4)	11,880
EPS (Rs)	6.5	8.5	5.9	8.0	(9.5)	(6.4)	6.5
ABVPS (Rs)	56.7	63.6	55.6	62.1	(1.8)	(2.4)	56.7
Price target (Rs)	138		144		4.3		
Recommendation	BUY		BUY				

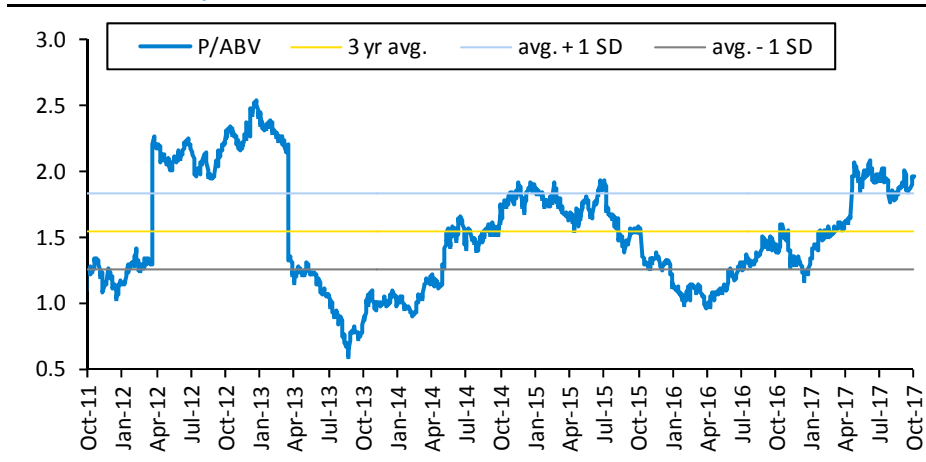
Source: Company Data, PL Research

**Exhibit 13: We increase our TP to Rs144 (from Rs138) based on 2.2x Sep-19E ABV on rollover**

PT calculation and upside	
Fair price - EVA	142
Fair price - P/ABV	146
<b>Average of the two</b>	<b>144</b>
<b>Target P/ABV</b>	<b>2.2</b>
<b>Target P/E</b>	<b>15.6</b>
Current price, Rs	125
<b>Upside (%)</b>	<b>15%</b>
Dividend yield (%)	1%
<b>Total return (%)</b>	<b>17%</b>

Source: Company Data, PL Research

**Exhibit 14: FB one year forward P/ABV chart**



Source: Company Data, PL Research

### Income Statement (Rs m)

Y/e March	2016	2017	2018E	2019E
Int. Earned from Adv.	56,693	65,457	79,407	94,868
Int. Earned from Inv.	17,631	18,014	19,175	19,441
Others	3,158	3,303	4,271	5,297
Total Interest Income	77,482	86,774	102,853	119,606
Interest expense	52,404	56,247	65,847	75,380
<b>NII</b>	<b>25,077</b>	<b>30,526</b>	<b>37,005</b>	<b>44,226</b>
Growth (%)	5.3	21.7	21.2	19.5
Treasury Income	1,275	3,087	2,500	2,250
NTNII	6,807	7,732	9,941	12,306
Non Interest Income	8,082	10,818	12,441	14,556
Total Income	85,563	97,592	115,294	134,162
Growth (%)	3.1	14.1	18.1	16.4
Operating Expense	18,921	22,095	24,731	28,730
<b>Operating Profit</b>	<b>14,238</b>	<b>19,249</b>	<b>24,715</b>	<b>30,052</b>
Growth (%)	(12.5)	35.2	28.4	21.6
NPA Provisions	5,553	4,051	6,133	4,961
Investment Provisions	802	296	350	—
Total Provisions	7,041	6,184	8,168	6,284
<b>PBT</b>	<b>7,197</b>	<b>13,065</b>	<b>16,547</b>	<b>23,768</b>
Tax Provisions	2,440	4,757	5,792	8,321
Effective Tax Rate (%)	33.9	36.4	35.0	35.0
<b>PAT</b>	<b>4,757</b>	<b>8,308</b>	<b>10,754</b>	<b>15,447</b>
Growth (%)	(52.7)	74.7	29.4	43.6

### Balance Sheet (Rs m)

Y/e March	2016	2017	2018E	2019E
Par Value	2	2	2	2
No. of equity shares	1,719	1,724	1,940	1,940
Equity	3,438	3,448	3,879	3,879
Networth	80,912	89,424	122,533	134,480
Adj. Networth	71,412	80,014	111,947	124,442
Deposits	791,717	976,646	1,113,376	1,291,516
Growth (%)	11.8	23.4	14.0	16.0
Low Cost deposits	260,526	320,528	360,627	423,493
% of total deposits	32.9	32.8	32.4	32.8
<b>Total Liabilities</b>	<b>945,814</b>	<b>1,149,769</b>	<b>1,341,651</b>	<b>1,542,866</b>
Net Advances	580,901	733,363	902,036	1,082,443
Growth (%)	13.3	26.2	23.0	20.0
Investments	251,555	281,961	286,203	302,349
<b>Total Assets</b>	<b>945,814</b>	<b>1,149,769</b>	<b>1,341,651</b>	<b>1,542,866</b>

Source: Company Data, PL Research.

### Quarterly Financials (Rs m)

Y/e March	Q3FY17	Q4FY17	Q1FY18	Q2FY18
Interest Income	22,814	23,160	23,241	23,796
Interest Expense	14,900	14,736	15,234	14,807
<b>Net Interest Income</b>	<b>7,914</b>	<b>8,424</b>	<b>8,007</b>	<b>8,989</b>
Non Interest Income	2,633	2,821	3,291	2,872
CEB	1,260	1,710	1,460	1,540
Treasury	860	540	1,120	750
<b>Net Total Income</b>	<b>10,547</b>	<b>11,245</b>	<b>11,298</b>	<b>11,861</b>
Operating Expenses	5,798	5,753	5,719	6,029
Employee Expenses	3,197	2,630	2,985	3,127
Other Expenses	2,601	3,123	2,735	2,902
<b>Operating Profit</b>	<b>4,749</b>	<b>5,492</b>	<b>5,579</b>	<b>5,832</b>
Core Operating Profit	3,889	4,952	4,459	5,082
Provisions	1,588	1,227	2,364	1,768
Loan loss provisions	1,040	770	2,300	1,400
Investment Depreciation	80	230	—	—
<b>Profit before tax</b>	<b>3,161</b>	<b>4,265</b>	<b>3,214</b>	<b>4,064</b>
Tax	1,104	1,699	1,113	1,427
<b>PAT before EO</b>	<b>2,057</b>	<b>2,566</b>	<b>2,102</b>	<b>2,637</b>
Extraordinary item	—	—	—	—
<b>PAT</b>	<b>2,057</b>	<b>2,566</b>	<b>2,102</b>	<b>2,637</b>

### Key Ratios

Y/e March	2016	2017	2018E	2019E
CMP (Rs)	125	125	125	125
Equity Shrs. Os. (m)	1,719	1,724	1,940	1,940
Market Cap (Rs m)	214,524	215,161	242,057	242,057
M/Cap to AUM (%)	22.7	18.7	18.0	15.7
EPS (Rs)	2.8	4.8	5.9	8.0
Book Value (Rs)	47	52	63	69
Adj. BV (100%) (Rs)	39	44	56	62
P/E (x)	45.0	25.9	21.3	15.7
P/BV (x)	2.7	2.4	2.0	1.8
P/ABV (x)	3.2	2.8	2.2	2.0
DPS (Rs)	0.7	—	1.1	1.5
Dividend Yield (%)	0.6	—	0.9	1.2

### Profitability (%)

Y/e March	2016	2017	2018E	2019E
NIM	2.8	2.9	3.0	3.1
RoAA	0.5	0.8	0.9	1.1
RoAE	6.0	9.8	10.1	12.0

### Efficiency

Y/e March	2016	2017	2018E	2019E
Cost-Income Ratio (%)	57.1	53.4	50.0	48.9
C-D Ratio (%)	73.4	75.1	81.0	83.8
Business per Emp. (Rs m)	99	107	110	113
Profit per Emp. (Rs lacs)	3.4	5.2	5.9	7.3
Business per Branch (Rs m)	881	878	827	780
Profit per Branch (Rs m)	3	4	4	5

### Asset Quality

Y/e March	2016	2017	2018E	2019E
Gross NPAs (Rs m)	16,678	17,271	21,246	21,608
Net NPAs (Rs m)	9,500	9,410	10,587	10,038
Gr. NPAs to Gross Adv. (%)	2.9	2.4	2.4	2.0
Net NPAs to Net Adv. (%)	1.6	1.3	1.2	0.9
NPA Coverage (%)	43.0	45.5	50.2	53.5

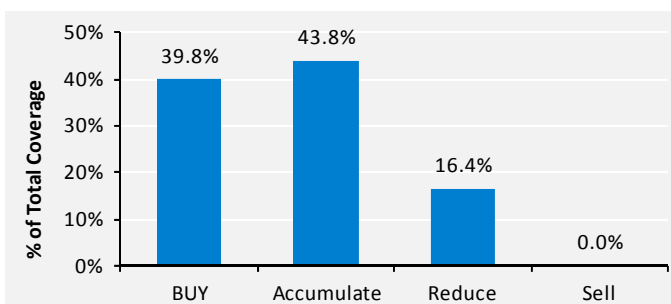
Source: Company Data, PL Research.



**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**

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

**DISCLAIMER/DISCLOSURES****ANALYST CERTIFICATION**

We/I, Mr. Pritesh Bumb (MBA, M.com), Mr. R Sreesankar (B.Sc.), Ms. Vidhi Shah (CA), 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 of 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](http://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. Pritesh Bumb (MBA, M.com), Mr. R Sreesankar (B.Sc.), Ms. Vidhi Shah (CA), 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 of the foregoing, among other things, may give rise to real or potential conflicts of interest.

PL and its associates, their directors or 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.