

Estimate change



TP change



Rating change



Bloomberg	HDFC IN
Equity Shares (m)	1,804
M.Cap.(INRb)/(USD\$)	4538.3 / 54.8
52-Week Range (INR)	3021 / 2027
1, 6, 12 Rel. Per (%)	2/4/-16
12M Avg Val (INR M)	9327

Financials & Valuations (INR b)

Y/E March	FY22	FY23E	FY24E
Core PPOP	164.4	183.2	206.9
Reported PAT	137.4	154.5	179.0
Adj. PAT	128.4	151.1	172.3
Adj. EPS (INR)	62.4	71.3	81.1
EPS Gr. (%)	14.5	14.3	13.8
BV/Sh. (INR)	664	716	790
ABV/Sh. (INR)	520	572	648
Core RoA (%)	1.9	1.9	1.9
Core RoE (%)	12.7	13.1	13.4
Payout (%)	39.6	39	38

Valuation

AP/E (x)	23.4	20.4	18.0
P/BV (x)	3.8	3.5	3.2
AP/ABV (x)	2.8	2.5	2.2
Div. Yield (%)	1.2	1.3	1.5

Shareholding pattern (%)

As On	Sep-22	Jun-22	Sep-21
Promoter	0.0	0.0	0.0
DII	21.1	21.2	17.0
FII	67.8	67.8	72.0
Others	11.1	11.1	11.1

FII Includes depository receipts

CMP: INR2,497

TP: INR2,900 (+16%)

Buy

Operating performance in line; Retail loan growth healthy

- HDFC reported a PAT of INR44.5b in 2QFY23 (5% beat), up 18% YoY, primarily driven by a lower effective tax rate of ~18% (because of higher dividend income). Core PPOP grew 15% YoY to INR43.8b.
- Margin was stable QoQ at 3.4% in 1HFY23. Credit costs fell by ~4bp QoQ to ~32bp, aided by a decline of ~20bp in GS3 and resolutions in the non-Individual segment.
- Disbursements in the Individual segment grew 36% YoY to INR440b. Individual/total AUM rose 20%/16% YoY, with Individual loans comprising ~81% of AUM. The management said it has a healthy pipeline in Construction Finance (CF) and LRD, and expects growth in the Non-Individual segment to accelerate in subsequent quarters.
- With the merger announced, taking a view in isolation is difficult. However, we feel that HDFC continues to have a strong 'right to win' in its standalone Mortgage business. **We maintain our Buy rating on the stock with a TP of INR2,900 (premised on Mar'24E SoTP).**

Impact on NIM from a lag in transmission to sustain in the near-term

- Despite the majority of the lending book being floating rate in nature, margin fell by ~20bp YoY (flat QoQ), due to: a) transmission lag in the passing of higher borrowing costs, and b) absence of benefits of lower rates on overnight interest swaps (OIS), which was present in 1HFY22.
- From Jul'22, HDFC reduced the re-pricing frequency on freshly disbursed Retail loans to one-month (from three-months earlier). However, on the back-book, because of the quarterly reset, one-third of the Retail book gets re-priced every month.

Asset quality improved; credit cost should further moderate

- Gross S2 + S3 (combined, 30+dpd) fell to 5.8% from 6.5% QoQ. GS3 fell 20bp QoQ to 1.9%. ECL/EAD declined by ~10bp QoQ to 2.2%.
- GNPA (IRAC) improved by ~20bp QoQ to ~1.6%, led by a decline of ~45bp in non-Individual GNPA to ~4%.
- Total restructured pool stood at 0.7% of AUM (v/s 0.77% in 1QFY23).
- We expect asset quality to continue to exhibit strength and model in credit cost of ~30bp/25bp in FY23/FY24.

Merger on track; CCI approval received

- HDFC has received approval for the merger from RBI and CCI. NCLT-Mumbai has passed an order of amalgamation, pursuant to which a meeting of shareholders has been convened on 25th Nov'22.
- Of the total loan book, INR1.2t will qualify for the PSL requirements of HDFCB. Non-Individual loans, which will not qualify for the HDFCB's portfolio, are not very significant. Except for acquisition funding and LAS for Corporate (both of which were done occasionally in the past), all other Wholesale loans will qualify for the HDFCB's loan book.

Abhijit Tibrewal - Research Analyst (Abhijit.Tibrewal@MotilalOswal.com)

Research Analyst: Nitin Aggarwal (Nitin.Aggarwal@MotilalOswal.com) / Parth Desai (Parth.Desai@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and

Highlights from the management commentary

- CIR stood at 9.5% (relatively higher) on account of its increased Retail business as well as expansion of its distribution network. Increased legal costs are contributing to higher OPEX. The management expects CIR to remain in single-digits in FY23.
- Prepayments stood at 10.3% of the opening loan book, which is line with that seen in the last few quarters.

NIM trajectory and impact of higher interest rates on loan growth will be key

- We expect margin to exhibit steady improvement over 2HFY23. With overall provisions at 2.2% of EAD, HDFC has made adequate provisions for any contingencies in asset quality.
- We have left unchanged our FY23/FY24 EPS estimate. We expect HDFC to deliver an AUM and PAT CAGR of ~14% each over FY22-24, which will translate into a core RoA/RoE of 2%/13% in FY23/FY24. **We reiterate our Buy rating on HDFC with a TP of INR2,900 (premised on Mar'24E SoTP).**

Quarterly performance

Quarterly performance												(INR b)
Y/E March	FY22				FY23				FY22	FY23E	FY23E 2QE	Var. (%)
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE				
Interest Income	106.5	106.8	111.6	113.7	120.0	132.0	143.7	154.0	438.6	549.8	129.3	2.0
Interest Expense	65.2	65.7	68.7	67.7	75.6	85.6	95.0	103.2	267.4	359.3	83.9	2.1
Net Interest Income	41.3	41.1	42.8	46.0	44.5	46.4	48.7	50.9	171.2	190.5	45.5	2.0
Change (YoY %)	24	14	7	14	8	13	14	11	14	11	11	
Assignment Income	2.7	1.3	2.2	4.4	2.8	2.3	3.0	4.1	10.6	12.2	2.6	-11.9
NII (including assignment income)	43.9	42.4	45.1	50.4	47.3	48.7	51.7	54.9	181.8	202.7	48.1	1.3
Change (YoY %)	25	13	2	13	8	15	15	9	19	12	14	
Other Operating Income	0.6	0.9	0.8	1.0	0.8	0.9	0.9	1.2	3.3	3.7	0.8	16.3
Core Income	44.5	43.3	45.9	51.4	48.0	49.7	52.6	56.1	185.1	206.4	48.9	1.5
Change (YoY %)	25	13	2	13	8	15	15	9	19	12	13	
Operating Expenses	5.5	5.3	4.8	5.1	5.9	5.9	5.6	5.8	20.7	23.2	5.9	-0.7
Change (YoY %)	39	45	-11	3	7	11	18	13	15	12	12	
Core Operating profit	39.0	38.0	41.1	46.2	42.2	43.8	46.9	50.3	164.4	183.2	43.0	1.8
Change (YoY %)	23	9	4	14	8	15	14	9	20	11	13	
Provisions	6.9	4.5	3.9	4.0	5.1	4.7	4.3	3.3	19.3	17.4	4.4	8.3
Core PBT	32.2	33.4	37.2	42.2	37.0	39.0	42.7	47.0	145.0	165.8	38.6	1.1
Change (YoY %)	63	10	11	26	15	17	15	11	24	14	15	
Profit on Sale of Inv./MTM on Inv.	6.7	1.4	1.3	2.7	1.9	1.4	1.0	0.6	12.0	5.0	0.8	
Dividend income	0.2	11.7	2.0	1.3	6.9	13.6	1.2	1.0	15.1	22.7	13.6	
One-off expenses/Prov.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other Income	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1	
PBT	39.0	46.7	40.5	46.2	45.9	54.1	45.0	48.8	172.5	193.8	53.1	1.9
Change (YoY %)	44	32	8	18	18	16	11	6	24	12	14	
Provision for Tax	9.0	8.9	7.9	9.2	9.2	9.6	9.2	11.4	35.0	39.3	10.8	-11.5
PAT	30.0	37.8	32.6	37.0	36.7	44.5	35.8	37.4	137.4	154.5	42.3	5.4
Change (YoY %)	39	32	11	16	22	18	10	1	24	12	12	

E: MOFSL estimates; FY19 estimates under Ind AS



Highlights from the management commentary

Loan growth and demand

- Growth is broad-based and is happening across India. Metros were not contributing to growth around two years back. In the last 12-18 months, business growth is occurring at a swift rate in metros like Mumbai and Delhi. Within Mumbai and Delhi, higher ticket mortgage loans are seeing a lot of demand.
- While the growth is broad-based, the contribution of Tier II cities has declined as there has been a strong growth in Tier I and metros.
- Retail disbursements stood at INR440b in 2QFY23.

Asset quality

- In Sep'22, the outstanding OTR pool stood at INR42.44b (0.7% of the loan book), which compares to a peak of 1.4% in Sep'21. Around 94% of the OTR pool are in the Individual loan book.
- There has been a significant improvement in asset quality over the last nine months. In 1HFY23, GNPA in Individual loans stood at 0.73% (down 37bp YoY).
- In Sep'22, GNPA in Individual loans stood at 0.91 (v/s 1.44% in Dec'21). GNPA in non-Individual loans stood at 3.99% (down from 5.04% in Dec'21).
- Annualized credit costs stood ~29bp (v/s 33bp in 1QFY23). As asset quality issues get resolved, it should be in a position to further normalize credit costs to pre-COVID levels.

Margin and spreads

- NIM was impacted by an increase in the repo rate and the consequent transmission gap in the lending rate and borrowing cost in 1HFY23.
- It benefitted from lower rates on OIS in 1HFY22.
- Retail loans have a quarterly reset mechanism, with one-third of the Retail loan book re-priced monthly. The lending portfolio is re-priced over three months.
- On incremental disbursements, it has reset the re-pricing frequency to monthly in Jul'22 from quarterly earlier.
- Increase in interest rates during the course of the quarter will reflect over the course of FY23. In a rising interest rate environment, this lag stretches for 30-45 days and this has an impact of 10-12bp. For Banks, interest rates are reset every month, while for HDFC there is a lag of 30-45 days.
- Spreads increased sequentially because of the benefit (on a lagged basis) of an increase in lending rates. Improvement in spreads within non-Individual loans was driven by resolutions in the non-Individual segment.
- When interest rates increase, by default the tenure of the loans is raised. When the borrower it is unable to cover the interest and negative amortization sets in, it counsels the customer to increase the EMI or repay a part of the principal.

Operating expenses

- CIR stood at 9.5% (relatively higher) on account of its increased Retail business as well as branch network. Increased legal costs are contributing to higher OPEX. The management expects CIR to remain in single-digits in FY23.

Non-Individual segment

- While it continues to have a pipeline in the Non-Individual segment, it continues to see prepayments, repayments, and resolution of stressed accounts.
- The pipeline in CF and LRD remains good, and the management expects non-Individual loans to accelerate in subsequent quarters.
- Historically, Construction Finance loans used to constitute 13-14% of the loan book. CF, as a component of total loans, has fallen to 9-10%. Between CY18-20, the NBFC saw some degree of stress in the Real Estate sector, particularly in Mumbai and Delhi. Due to the high unsold inventory, there were not many launches in this period. Many new projects were launched after CY20. HDFC has a very healthy pipeline of approved CF loans. In LRD, the disbursement is made up front, while in a CF loan, the disbursement is made progressively over the life of the loan, based on the progress of construction.
- In the non-Individual portfolio, it has not gone into details of which exposures will not be eligible for HDFCB. Some of the loans, which will not qualify for the HDFCB's portfolio, are not very significant and are manageable. Except for acquisition funding and LAS for Corporates (both of which were done occasionally in the past), all other Wholesale sales will qualify for HDFCB's book.
- HDFC is still holding on to its market share in LRD. Its market share in the CF segment is likely to have increased over the last few years as many lenders like IBHL and DHFL have vacated the CF space.

Update on its merger with HDFCB

- The subsidiaries and associates of HDFC will become the subsidiaries and associates of HDFCB.
- CCI has approved the proposed amalgamation. NCLT-Mumbai has passed an order of amalgamation, pursuant to which a meeting of its shareholders has been convened on 25th Nov'22.
- HDFC is yet to hear from RBI with regards to the forbearance on some of the statutory things for which it has requested the regulator.
- Of its total loan book, INR1.2t will qualify for HDFCB's PSL requirement.

Others

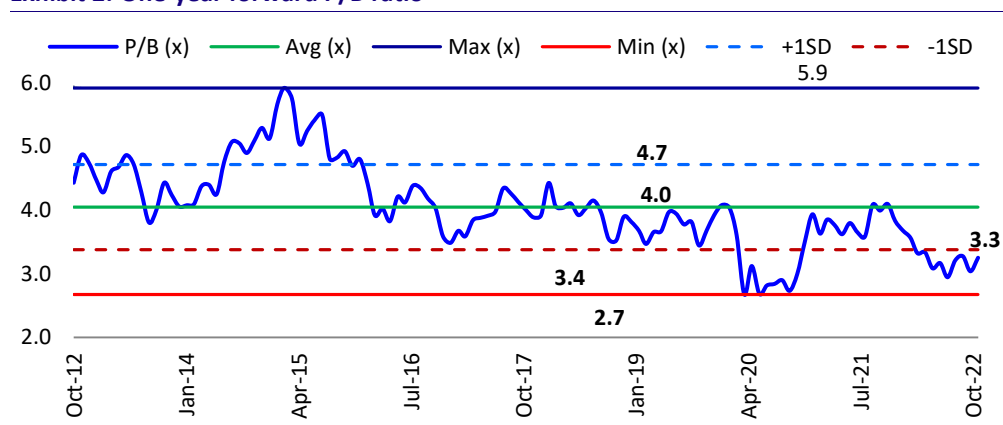
- Prepayments stood at 10.3% of the opening loan book, which is line with that seen in the last few quarters
- Under ECLGS, it has cumulatively disbursed INR17.83b.

Exhibit 1: Mar'24E-based SoTP

Particular	Stake	Value (INR b)	Value (USD b)	Value/ share (INR)	As a percentage of the total	Target multiple (x)	Rationale
Core business		2,751	36.4	1,517	52.3	2.3	P/BV
Key ventures							
HDFCB	21.0	1,956	25.9	1,079	37.2	3.0	P/BV
HDFCLIFE	47.8	575	7.6	317	10.9	2.8	PEV
HDFCAMC	52.6	307	4.1	169	5.8	30.0	PE
HDFC ERGO GIC	50.0	122	1.6	68	2.3	6.0	P/BV
BANDHAN	10.0	65	0.9	36	1.2	2.0	P/BV
Credila	100.0	92	1.2	50	1.7		Last deal
Other Invt.		17	0.2	9	0.3	1.0	Invested capital
Total value of ventures		3,134	41.5	1,729	59.6		
Less: 20% holding discount		627	8.3	346	11.9		
Value of key ventures		2,507	33.2	1,383	47.7		
SoTP		5,258	69.6	2,900	100.0		
CMP		4,527	59.9	2,497			
Upside (%)		16.1	16.1	16.1			

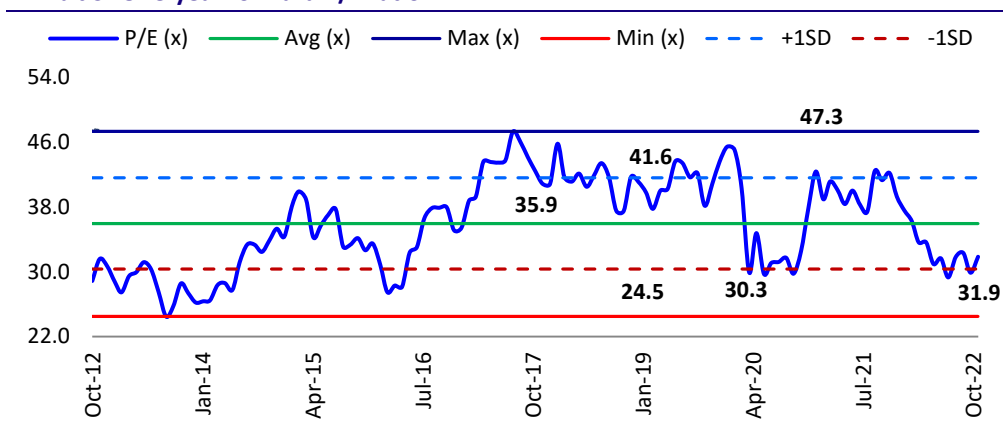
Source: MOFSL, Company

Exhibit 2: One-year forward P/B ratio



Source: MOFSL, Company

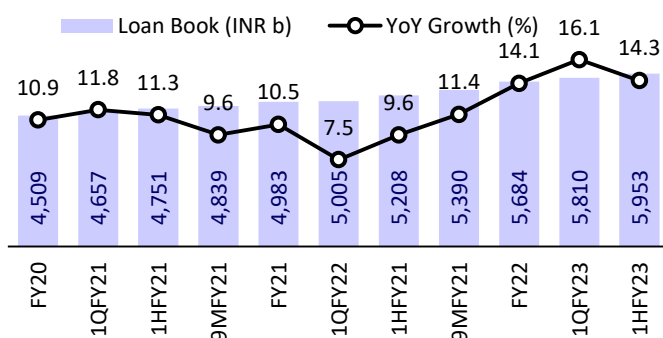
Exhibit 3: One-year forward P/E ratio



Source: MOFSL, Company

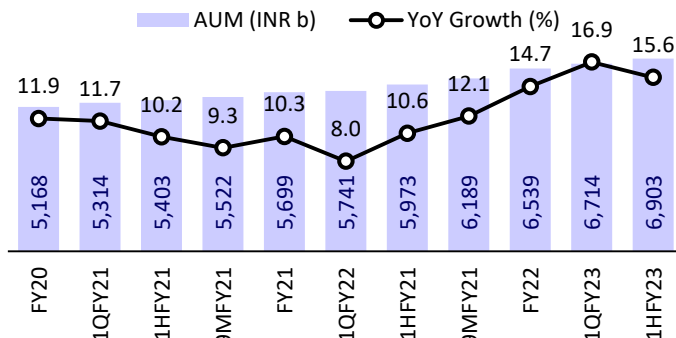
Key exhibits

Exhibit 4: Loan growth aided by strong momentum in Individual loans



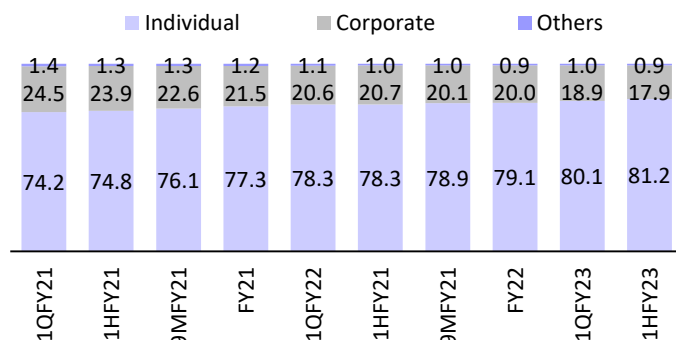
Source: MOFSL, Company

Exhibit 5: AUM grew by 16% YoY



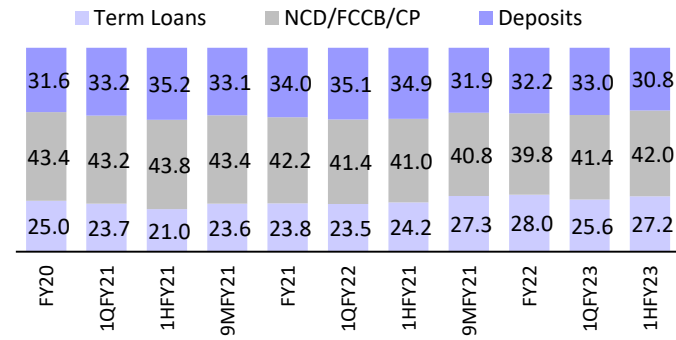
Source: MOFSL, Company

Exhibit 6: Non-Individual loan book continues to moderate



Source: MOFSL, Company, *HL: Home Loans

Exhibit 7: Share of Term loans increases by ~160bp YoY (%)



Source: MOFSL, Company

Exhibit 8: GS3 improves by ~20bp QoQ...

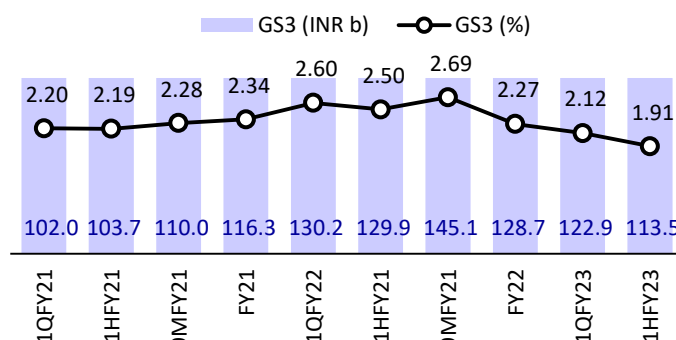


Exhibit 9: ...and NS3 improves by ~15bp

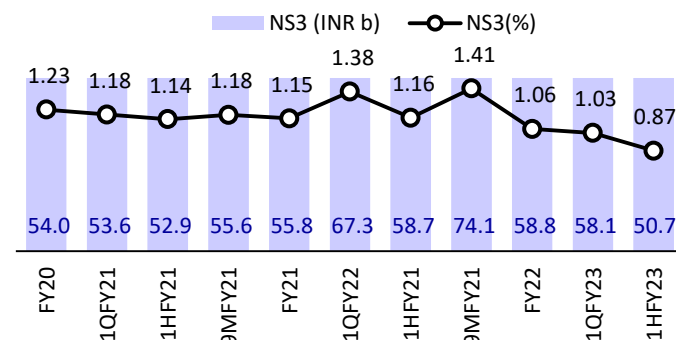
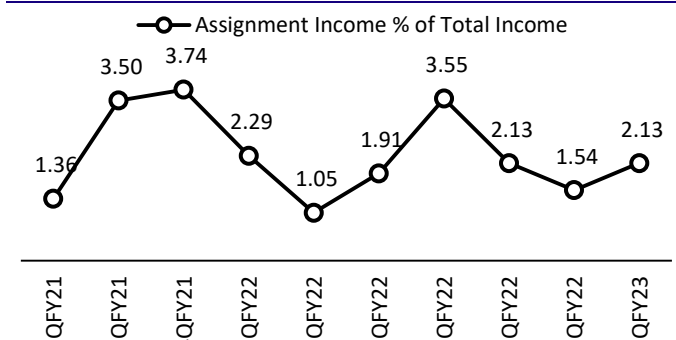
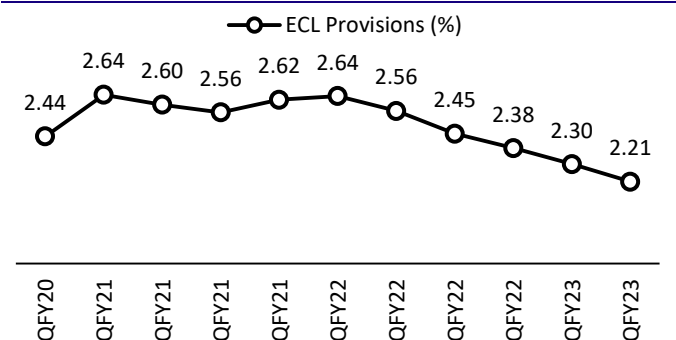


Exhibit 10: Trend in assignment income (%)



Source: MOFSL, Company

Exhibit 11: Total provisions moderates to ~2.2% of loans



Source: MOFSL, Company

Financials and valuation

Income Statement

(INR b)

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Interest Income	281	309	331	393	437	436	439	550	641
Interest Expended	194	209	235	278	310	286	267	359	425
Net Interest Income	87	100	96	114	127	150	171	190	216
Change (%)	8.8	14.5	-3.2	18.7	11.4	17.4	14.4	11.3	13.5
Assignment income	0	0	5	9	10	12	11	12	13
NII (including assignment income)	87	100	102	123	137	162	182	203	229
Change (%)	8.8	14.5	2.2	21.0	11.5	17.8	12.5	11.5	13.0
Other core operating income	3.8	3.5	2.2	3.1	3.0	2.9	3.3	3.7	4.0
Core Income	91	103	104	126	140	164	185	206	233
Change (%)	9.5	13.5	0.9	21.4	11.1	17.4	12.5	11.5	12.8
Operating Expenses	8	8	19	15	15	18	21	23	26
Change (%)	7.4	10.3	127.6	-22.0	0.8	20.0	15.3	12.0	12.0
As a percentage of core income	8.4	8.1	18.3	11.8	10.7	10.9	11.2	11.2	11.2
Core operating profit	83	95	85	111	125	146	164	183	207
Change (%)	9.7	13.8	-10.3	31.1	12.5	17.0	12.2	11.4	13.0
Provisions/write-offs	3	4	5	5	16	29	19	17	17
Core PBT	80	90	80	106	109	117	145	166	190
Change (%)	8.5	12.3	-11.2	32.2	2.9	7.1	24.0	14.3	14.8
Profit on sale/MTM on Invest.	16	10	57	18	126	24	12	5	9
Dividend Income	8	9	11	11	11	7	15	23	24
One-off exp./prov.	-5	-3	-17	-4	-43	0	0	0	0
Miscellaneous Income	1	1	0	0	0	0	0	0	0
PBT	101	107	132	131	204	148	172	194	225
Tax	30	33	22	35	26	28	35	39	46
Tax Rate (%)	29.8	30.6	16.9	26.6	12.7	18.8	20.3	20.3	20.3
Reported PAT	71	74	110	96	178	120	137	154	179
Change (%)	18	5	47	-12	84	-32	14	12	16
Adjusted PAT*	66	74	68	87	96	107	128	151	172
Change (%)	9	12	-9	29	10	11	20	18	14

*(Core PBT + dividend income + other income) adjusted for applicable tax

Balance Sheet

(INR b)

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Capital	3	3	3	3	3	4	4	4	4
Reserves and Surplus (Excl. OCI)	357	433	652	774	928	1,096	1,200	1,294	1,442
Net Worth (Excl. OCI)	360	436	655	778	932	1,099	1,203	1,298	1,446
Other Comprehensive Income	0	-2	-3	-4	-70	-53	-42	-42	-42
Net Worth (Incl. OCI)	360	434	653	774	862	1,046	1,161	1,255	1,403
Borrowings	2,376	2,794	3,197	3,662	4,191	4,414	4,997	5,810	6,604
Change (%)	13.9	17.6	14.4	14.5	14.4	5.3	13.2	16.3	13.7
Other liabilities	142	124	139	152	188	216	251	276	304
Total Liabilities	2,879	3,352	3,989	4,588	5,241	5,676	6,409	7,341	8,311
Loans	2,592	2,989	3,628	4,066	4,509	4,853	5,549	6,385	7,257
Change (%)	13.6	15.3	21.4	12.1	10.9	7.6	14.3	15.1	13.7
Investments	153	202	307	462	649	686	686	720	756
Change (%)	7.4	31.5	52.2	50.5	40.4	5.7	-0.1	5.0	5.0
Net Fixed Assets	7	10	10	10	22	22	41	45	50
Other assets	144	150	43	50	60	115	133	191	248
Total Assets	2,897	3,352	3,989	4,588	5,241	5,676	6,409	7,341	8,311

E: MOFSL estimates

Financials and valuation

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
AUM (INR B)	2,915	3,385	4,029	4,619	5,168	5,699	6,539	7,468	8,438
Change (%)	15.1	16.1	19.0	14.7	11.9	10.3	14.7	14.2	13.0
Individual loans (%)	72.8	72.6	72.9	74.5	75.8	77.3	79.1	83.0	81.0
Non Individual loans (%)	27.2	27.4	27.1	25.5	24.2	22.7	20.9	17.0	19.0
On Balance Sheet (%)	88.9	88.3	90.1	88.0	87.3	85.2	84.9	85.5	86.0
Assignment/Securitisation (%)	11.1	11.7	9.9	12.0	12.7	14.8	15.1	14.5	14.0

E: MOFSL Estimates

Ratios

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Spreads Analysis (%)									
Avg. Yield on Hsg. Loans	11.0	10.5	9.6	9.7	9.7	8.9	7.9	8.7	8.9
Avg. Yield on Funds	11.0	10.5	9.4	9.5	9.4	8.5	7.8	8.5	8.7
Avg. Cost of funds	8.7	8.1	7.8	8.1	7.9	6.7	5.7	6.7	6.9
Interest Spread on loans	2.3	2.5	1.7	1.6	1.8	2.2	2.2	2.0	2.0
Net Interest Margin	3.4	3.4	2.7	2.8	2.7	2.9	3.0	3.0	2.9

Profitability Ratios (%)

RoAE	20.9	18.7	20.2	13.5	21.7	12.6	12.5	12.8	13.5
Core RoE	20.7	19.7	12.6	13.0	13.1	12.8	12.7	13.1	13.4
RoA	2.42	2.37	1.84	2.03	1.96	1.96	2.12	2.20	2.20
Core RoA	2.02	2.04	1.61	1.84	1.80	1.87	1.93	1.93	1.94

Efficiency Ratios (%)

Int. Expended/Int. Earned Ratio	69.0	67.7	70.9	70.9	70.9	65.7	61.0	65.4	66.3
Op. Exps./Net Income Ratio	6.6	6.8	11.1	9.6	5.4	9.2	9.8	9.9	9.7
Empl. Cost/Op. Exps. Ratio	46.0	46.5	72.0	48.2	39.6	50.8	51.2	50.7	49.8

Asset Quality (INR m)

Gross NPAs	19	24	41	48	89	116.2	128.8	122.3	1,22,301
Gross NPAs to Adv. (%)	0.7	0.8	1.1	1.2	2.0	2.3	2.3	1.9	1.7
Net NPAs	13	16	29	34	66	55.6	58.8	61.2	61,151
Net NPAs to Adv. (%)	0.5	0.6	0.8	0.8	1.5	1.1	1.0	1.0	0.8

Valuation	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Book Value (INR)	227.7	274.7	391.1	451.7	537.9	609.3	663.7	715.7	790.0
Price-to-BV (x)				5.3	4.4	3.9	3.6	3.5	3.2
Adjusted BV* (INR)	176.6	220.1	340.2	352.4	399.0	465.1	520.2	572.3	647.9
Adj. Price-to-ABV (x)				4.9	3.9	3.2	2.6	2.5	2.2
Adjusted EPS (INR)#	33.7	39.1	34.5	44.4	49.2	54.5	62.4	71.3	81.1
Adjusted EPS Growth YoY	8.2	15.9	-11.7	28.7	10.8	10.8	14.5	14.3	13.8
Adj. Price-to-Adj. EPS (x)				38.7	32.0	26.9	21.5	20.4	18.0
Dividend per share (INR)	17.0	18.0	20.0	21.0	21.0	23.0	30.0	33.1	37.1
Dividend yield (%)				0.9	0.9	1.0	1.3	1.3	1.5

E: MOFSL estimates; *BV is adjusted by deducting investment in subsidiaries and associates from NW

#Adjusted EPS is arrived at after adjusting for dividend from key ventures and one-offs

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (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 company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>.

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered/qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co. Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisers Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions; however, the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 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 company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-71881085.

Registration details of group entities: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN.: 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products. Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.