

NIM improvement over FY20-23E (bp)

CIFC	158
MMFS	70
PNBHOUSI	45
HDFC	1
LTFH	0
LICHF	-3
SHTF	-13
BAF	-25
MGFL	-85
MUTH	-91

FY22E PAT upgrade (%)

LICHF	9
BAF	6
CIFC	4
MMFS	2
MUTH	2
HDFC	2
SHTF	1
LTFH	1
MGFL	1
PNBHOUSI	0

Could cost of funds be the dark horse in the NBFC sector?

Sharp decline in incremental CoF to boost margins; Vehicle Financiers best placed

- NBFCs have seen significant volatility in CY20 on the borrowings front from a sharp increase in CoF in 2Q to multi-year lows by the end of CY20. Given the abundant liquidity in the system and RBI's accommodative stance, incremental CoF across sources is likely to remain benign. NBFCs with a niche presence and strong pricing power are likely to witness margin expansion. Reduction in excess liquidity on the balance sheet and benefit of capital raise for a few players would also aid margins.
- NBFCs with healthy parentage and strong credit ratings have seen their CoF from market borrowings (NCDs and CPs) decline by ~200bp in the last six months. At the same time, cost of bank borrowings/public deposits has declined by ~80bp/130bp.
- Since the IL&FS crisis, all NBFCs in our coverage pruned their dependence on market borrowings. On an average, the share of market borrowings has fallen by 1,500bp over the past two years. Nevertheless, HDFC, LICHF, BAF and LTFH stand out in the NBFC pack, with over 40% of borrowings accruing from NCDs and CPs.
- Given their shorter borrowing profile, Vehicle Financiers are likely to benefit from savings on refinancing as 40-62% of their market borrowings are maturing in the next six quarters (1HFY20-FY22). Around 25-50% of market borrowings for HFCs are scheduled to mature over the next six quarters. Hence, the refinance benefit would play out slower for HFCs as compared to Vehicle Financiers.
- Another trigger for margin expansion in FY22 would be the reduction in liquidity on the balance sheet. On an average, liquid assets as a percentage of total assets are up 300-400bp over the past year. With gradual redeployment of money from liquid assets to loans, margins should benefit meaningfully. For Housing Financiers, every 100bp of liquidity redeployed into loans would boost margins by 3-4bp, while that for Vehicle Financiers would be 10-12bp. Hence, a reduction in liquidity to pre-COVID levels could benefit NBFC margins by 10-40bp in FY22E.
- Margins can also benefit from a reduction in overall leverage ratios across players. HDFC/MMFS/SHTF raised INR150b/INR31b/INR15b in FY21. Based on growth-RoE matrix and dividend payout ratio, leverage is likely to remain stable in the near term.
- We expect NIM to be largely stable for HFCs as a highly competitive environment would compel them to pass on the CoF benefit to their customers and as the share of high-yielding non-retail loans and LAP is likely to come down. Vehicle Financiers, with a niche customer segment and some pricing power, may not pass on the full benefit to their customers. Players like CIFC and MMFS are likely to witness 70-160bp improvement in NIM over FY20-23E. We increase our FY22E EPS estimates by low-to-mid single digits on average, with the highest upgrade of 9% for LICHF (aided by margin and credit cost) off a low base.

~200bp decline in the cost of incremental market borrowings

Over the past nine months, there has been a sharp decline in the incremental cost of market borrowings for NBFCs, especially those with strong parentage. **For example, BAF raised two-year funds at 4.7% in Dec'20 compared to over 7% for three-year borrowings in Feb'20.** For HDFC, cost of long-term funds (five years) fell nearly 200bp to sub-6% over the same period. **Within Vehicle Financiers, MMFS has been the biggest beneficiary, with the cost of three-year borrowings declining by ~250bp to 5.25% in the past nine months.** Among larger NBFCs, while the cost of borrowing fell for Shriram Group entities, it still remains around 8%.

25bp NIM impact on FY22E PAT

LICHF	14
PNBHOUSI	12
MMFS	11
HDFC	9
LTFH	9
SHTF	7
CIFC	6
BAF	4
MGFL	3
MUTH	2

Increasing share of bank borrowings since the IL&FS crisis

While the cost of market borrowings has declined sharply, NBFCs have a lower share of market borrowings now as compared to two years ago. This is because, post the IL&FS crisis, companies meaningfully cut down their NCD & CP exposure. These players focused on bank borrowings and alternative sources like sell-downs and ECBs to raise incremental money. **In our coverage universe, only four players – HDFC, LICHF, BAF and LTFH – still have over 40% share of market borrowings.** These players are likely to benefit more than others ceteris paribus. **Nevertheless, players with a higher share of bank borrowings would also benefit, albeit to a lesser extent, as banks have cut their MCLR by 80-90bp since Feb'20 and some companies have moved to repo-linked borrowings from banks.**

HDFC, PNBHOUSI and MMFS to benefit from lower deposit cost

In addition to market borrowings, even deposits (both public and corporate) have witnessed a sharp decline in cost. HDFC's cost of incremental deposits is down 150-180bp to 5.5-6% since the start of the pandemic. For other deposit-accepting players, the decline has been slightly lower (100-150bp). **It is important to note that deposits constitute over 20% for only three players: HDFC (35%), PNBHOUSI (25%) and MMFS (22%).**

Liquidity on balance sheet to come down, to help margin expansion

In the past two years, NBFCs increased liquidity on their balance sheet to over 10% at present from an average of 3-4%. There are several players (BAF, MMFS, MUTH, etc.) who have nearly 20% liquidity on their balance sheet. **As concerns on availability of liquidity and collection efficiency have now abated, we believe most NBFCs would trim liquidity by 300-400bp in FY22E.** With a gradual redeployment of funds from liquid assets to loans, margins should benefit meaningfully. **For Housing Financiers, every 100bp of liquidity (yielding 4-5%) redeployed into loans (yielding 8-9%) would benefit margins by 3-4bp. For Vehicle Financiers, the benefit from redeployment of liquidity would be higher (10-12bp) since yields are ~15%. With a 300-400bp reduction in liquidity, NBFC margins could rise by 10-40bp in FY22E.**

Expect meaningful margin improvement over FY20-23E

Given the factors mentioned above, different NBFCs would have varying degrees of margin impact over the next 2-3 years. In the case of HFCs, we do not foresee any meaningful margin expansion as the benefit from lower CoF is passed on to borrowers. NBFCs with a higher share of fixed rate loans and shorter duration of liabilities are most likely to benefit. **Within our coverage universe, two players stand out in terms of margin improvement: CIFC (a 160bp improvement over FY20-23E) and MMFS (70bp).** The impact of NIM improvement on PAT varies across players – lower the RoA, higher the impact of NIM movement on PAT. As HFCs typically have the lowest RoA among NBFCs, followed by Vehicle and Gold Financiers, the EPS impact from an improvement in margins would be the highest for HFCs and the lowest for Vehicle Financiers, in our opinion. **We upgrade our FY22E EPS estimates by low-to-mid single digits across players to factor in margin benefit as discussed above.**

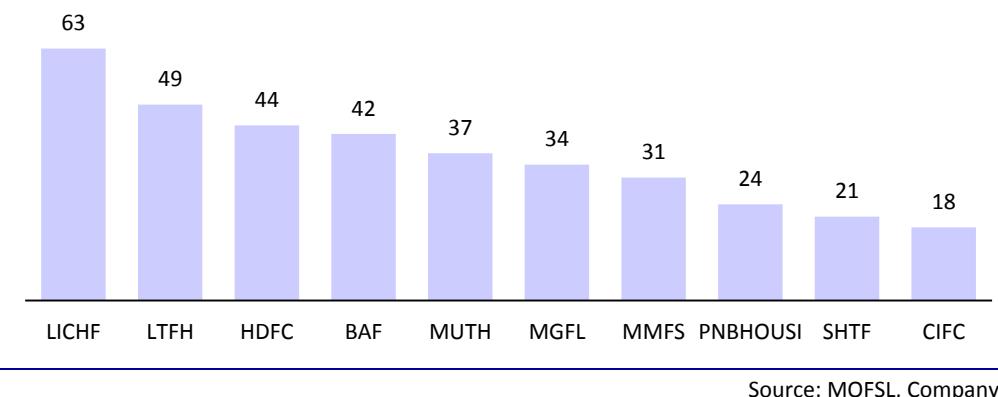
Story in charts

Players with strong parentage are now raising three-year money ~5% compared to over 7% prior to the COVID-19 outbreak

Sharp decline in incremental cost of market borrowings

- **HDFC, LICHF, BAF, and MMFS have witnessed the sharpest decline in incremental cost of NCD borrowings over the past 6-9 months. The incremental cost across tenures is down by ~200bp since Feb'20.**
- While the share of market borrowings has declined meaningfully over the past few years, there are still four players for whom the share stands above 40%: LICHF, LTFH, HDFC, and BAF. Consequently, these players are most likely to benefit from a decline in the cost of NCDs.

Exhibit 1: Share of market borrowings (%)



Source: MOFSL, Company

Exhibit 2: NCD issuance - HDFC

Interest Rate (%)	Date of Issue	Tenure (yr)
7.35	10-Feb-20	5.0
6.99	13-Feb-20	3.0
7.40	28-Feb-20	10.0
7.20	13-Apr-20	3.0
6.95	27-Apr-20	3.0
7.06	13-May-20	1.6
7.00	19-May-20	2.0
7.25	17-Jun-20	10.0
5.40	11-Aug-20	3.0
4.95	09-Sep-20	2.0
6.43	29-Sep-20	5.0
5.78	25-Nov-20	5.0

Source: NSE

Exhibit 3: NCD issuance - LICHF

Interest Rate (%)	Date of Issue	Tenure
7.45	10-Jan-20	3.1
7.97	28-Jan-20	10.0
7.33	12-Feb-20	5.0
6.57	12-Feb-20	1.4
5.45	26-Aug-20	3.0
6.19	25-Sep-20	4.2
5.53	01-Dec-20	4.1

Source: NSE

Exhibit 4: NCD issuance - BAF

Interest Rate (%)	Date of Issue	Tenure
7.10	12-Feb-20	3.0
7.60	28-Feb-20	10.0
7.65	28-Jan-20	5.0
7.90	28-Jan-20	10.9
7.66	14-Dec-19	5.0
7.35	14-Nov-19	3.0
7.06	29-Apr-20	3.1
6.75	01-Jun-20	3.0
5.70	19-Aug-20	3.0
5.20	19-Aug-20	2.0
7.25	27-Aug-20	10.0
6.00	27-Aug-20	4.0
4.66	03-Dec-20	2.0

Source: NSE

Exhibit 5: NCD issuance – MMFS

Interest Rate (%)	Date of Issue	Tenure
7.60	03-Feb-20	3.0
7.45	05-Mar-20	4.8
7.75	05-Mar-20	10.0
7.50	29-Apr-20	3.0
7.63	13-May-20	2.1
6.95	16-Jun-20	3.0
7.25	16-Jun-20	2.0
6.55	29-Jun-20	2.3
5.72	16-Oct-20	3.0
4.80	04-Dec-20	2.0
5.25	04-Dec-20	3.0

Source: NSE

Exhibit 6: NCD issuance - CIFC

Interest Rate (%)	Date of Issue	Tenure
7.41	12-Feb-20	3.0
6.90	27-Apr-20	1.0
6.74	17-Jun-20	1.2
6.93	17-Jun-20	1.5
7.20	17-Jun-20	2.0
7.92	08-Jul-20	5.0
5.85	21-Oct-20	2.4
6.80	26-Oct-20	4.0
9.30	03-Nov-20	Perpetual
5.70	06-Nov-20	2.3
5.45	25-Nov-20	2.0

Source: NSE

Exhibit 7: NCD issuance - LTFH

Interest Rate (%)	Date of Issue	Tenure
9.00	04-Dec-19	5.0
8.25	24-Jan-20	3.0
7.68	04-Mar-20	3.0
7.80	28-Apr-20	3.0
7.50	11-May-20	1.3
GSec-linked	17-Aug-20	2.0
5.85	02-Dec-20	3.0

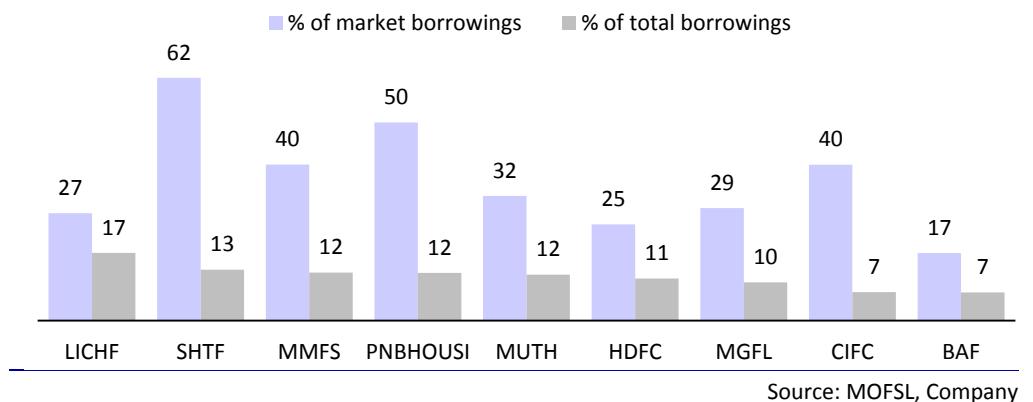
Source: NSE; Note: L&T Finance Ltd.

25-50% of market borrowings for HFCs are maturing in the next 18 months. For Vehicle Financiers, the share of such NCDs stands at 40-62%

Share of borrowings maturing by Mar'22 varies across players

- There are three factors that determine the decline in average CoF: a) fall in incremental CoF, b) proportion of borrowings that would get refinanced, and c) expected AUM growth.
- Players with longer-tenure borrowings tend to benefit less in such situations as a smaller proportion of borrowings mature and get refinanced at lower rates.
- We note that Vehicle Financiers would benefit more than HFCs as 40-62% of market borrowings are scheduled to mature over the next 18 months for the former v/s 25-50% for HFCs.
- **As a share of total borrowings, the quantum of NCDs maturing over the next 18 months stands at 10-13% for most players. LICHF stands out with 17% share.** BAF has only 7% share of total borrowings maturing in the next 18 months. This is primarily due to its long tenure of borrowings.

Exhibit 8: NCDs scheduled to mature over 1HFY21-FY22



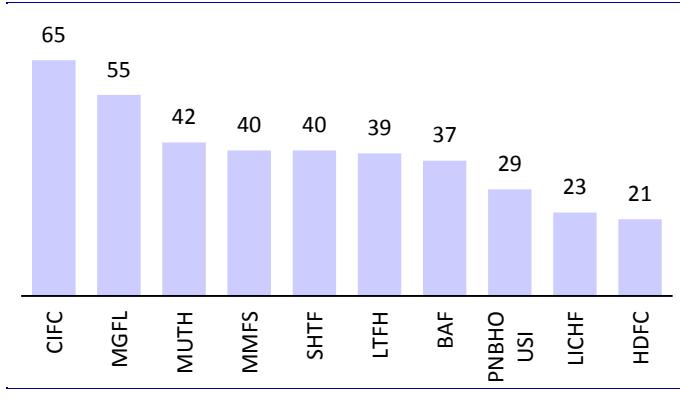
Source: MOFSL, Company

CIFC/MGFL have a high share of bank borrowings at 65%/55%

80-90bp reduction in MCLR by banks to benefit NBFCs immediately

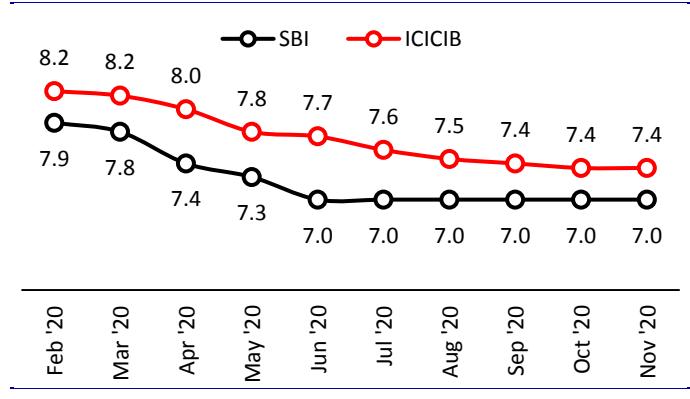
- After the 75bp repo rate cut by RBI in Mar'20, banks have cut their MCLR quite meaningfully. By and large, the one-year MCLR is down 80-90bp since Feb'20.
- HFCs typically have a lower share of bank borrowings, while Vehicle and Gold Financiers have a higher share of bank borrowings.
- While the quantum of decline in the cost of bank borrowings is much lower than that of market borrowings, it is important to note that the re-pricing benefit happens much quicker (within one year). Also, a few companies have moved to repo-linked borrowings as well.**

Exhibit 9: Share of bank borrowings (%)



Source: MOFSL, Company

Exhibit 10: One-year MCLR reduces by 80-90bp since Feb'20

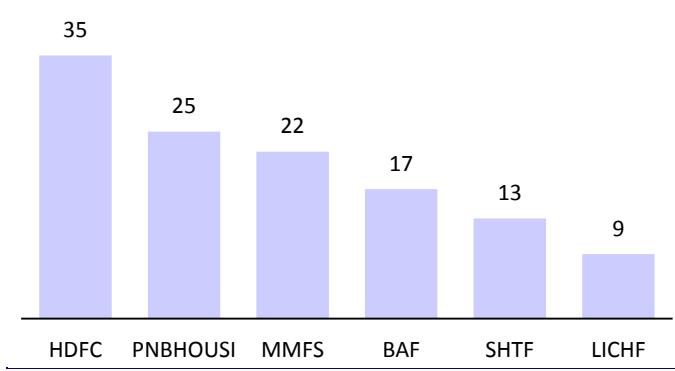


Source: MOFSL, Company

HDFC to benefit from lower cost of deposits as deposits comprise 35% of total borrowings

Cost of deposits down meaningfully; HDFC key beneficiary

- In addition to NCDs, the cost of deposits too has witnessed a meaningful decline over the past three quarters. On an average, it has declined 100-150bp across players. A notable exception here is SHTF for whom the decline in the cost of deposits has been modest.
- Among NBFCs under our coverage, HDFC is best placed on this front as: a) it has the highest share of borrowings from deposits (35%), and b) its cost of deposits is lower than peers by a meaningful (60-70bp) margin.**

Exhibit 11: Share of deposits in total borrowings (%)

Source: MOFSL, Company

BAF, MMFS, MUTH and MMFS have ~20% liquidity on their balance sheet

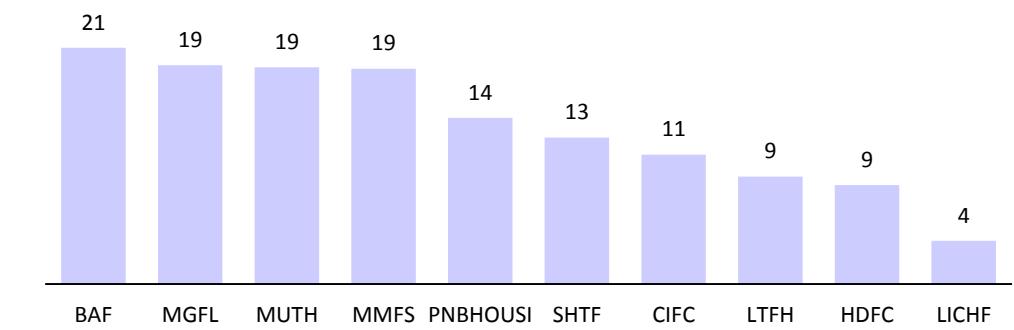
Exhibit 12: Interest rates on public deposits with a 2-3 year tenure

%	March	June	December
HDFC	7.30	6.68	5.65
PNBHOUSI	7.65	7.57	6.34
BAF	7.65	7.45	6.30
SHTF	7.7-8.3	8.1-8.8	7.7-8.2
MMFS	7.80	8.0-8.3	6.3-6.6

Source: MOFSL, Company

Moderation in liquidity to lower NIM drag

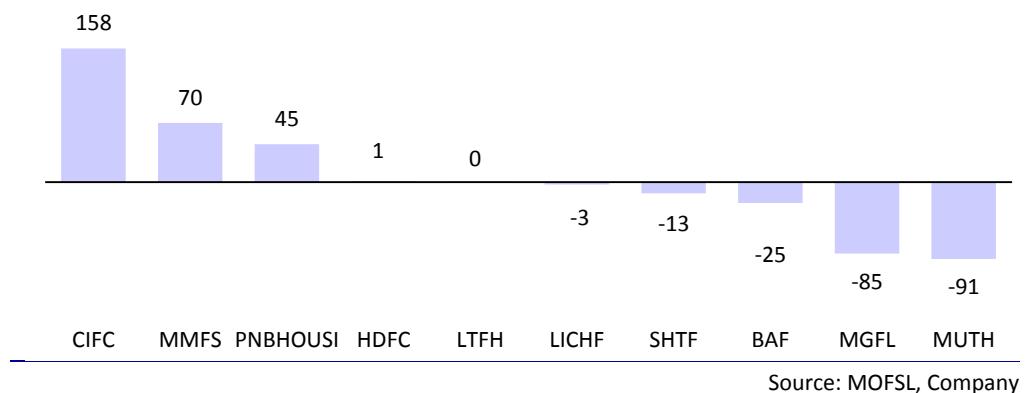
- Over the past six months, NBFCs shored up liquidity on their balance sheet given uncertainties in the funding market as well as potential ALM mismatches due to the moratorium on payment of loan EMIs.
- Even some well-rated players like MMFS and BAF have ~20% of borrowings as liquidity on their balance sheet. These players would not need to carry so much liquidity and would redeploy some of it into loans.
- For Housing Financiers, every 100bp of liquidity (fetching 4-5%) redeployed into loans (yielding 8-9%) would benefit margins by 3-4bp. For Vehicle Financiers, the benefit of redeployment of liquidity would be higher at 10-12bp since yields are typically ~15%.**
- With a 300-400bp reduction in liquidity, NBFC margins could benefit by 10-40bp in FY22.

Exhibit 13: Liquidity on the balance sheet (% of borrowings)

Source: MOFSL, Company

Margin improvement highest for Vehicle Financiers

- Within our coverage universe, Vehicle Financiers are most likely to benefit from margin expansion as they need to pass on the lower CoF benefit to their borrowers. Due to competitive pressures, HFCs would also have to pass on the CoF benefit to their customers, resulting in margins being largely stable.

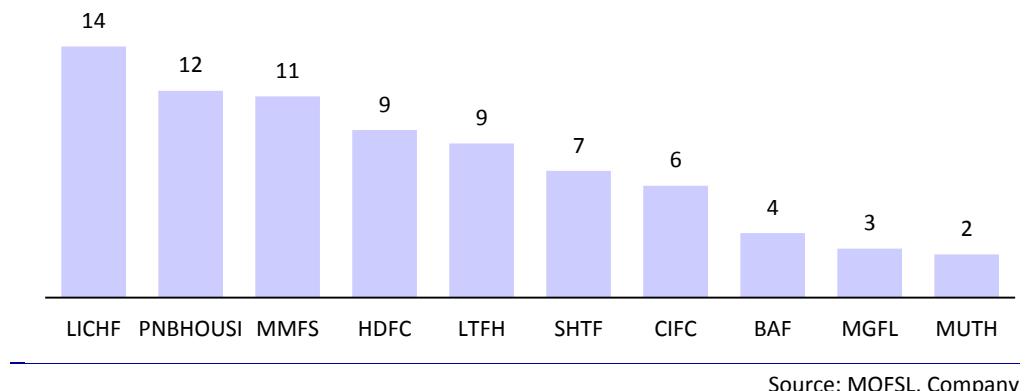
Exhibit 14: Increase in NIM over FY20-23E (%)

Source: MOFSL, Company

LICHF, MMFS and PNBHOUSI have the highest sensitivity of PAT to changes in NIM

PAT sensitivity highest for HFCs, lowest for Gold Financiers

- Lower the RoA, higher the impact of NIM movement on PAT. As HFCs have the lowest RoA among NBFCs, followed by Vehicle and Gold Financiers, the EPS impact from an improvement in margins would be the highest for HFCs and the lowest for Vehicle Financiers.

Exhibit 15: Impact on FY22E PAT due to a 25bp increase in NIM (%)

Source: MOFSL, Company

See up to 9% FY22E PAT upgrade across players

- Given the tailwinds on the margin front, we increase our FY22E PAT estimates by up to 9%. On average, the PAT upgrades are in low-to-mid single digits driven by benefit on the margin front.

Exhibit 16: Mid-to-high single digit PAT increase across most players for FY22E

FY22E (INR m)	Old estimate	New estimate	Change (%)
HDFC	1,22,450	1,24,868	2
LICHF	30,105	32,744	9
PNBHOUSI	11,205	11,199	0
BAF	79,200	84,049	6
LTFH	21,465	21,582	1
MMFS	11,169	11,448	2
CIFC	19,093	19,932	4
SHTF	29,152	29,350	1
MUTH	40,986	42,002	2
MGFL	20,109	20,218	1

Source: MOFSL, Company

Valuation matrix

Rating	CMP (INR)	Mcap (USDb)	P/E (x)		P/BV (x)		RoA (%)		RoE (%)		
			FY21E	FY22E	FY21E	FY22E	FY21E	FY22E	FY21E	FY22E	
HFCs											
HDFC*	Buy	2,454	56.2	25.6	20.0	2.8	2.3	1.8	1.8	12.3	11.9
LICHF	Buy	362	2.5	6.1	6.1	0.9	0.8	1.3	1.2	15.8	14.0
PNBHF	Neutral	355	0.8	6.2	5.3	0.7	0.6	1.2	1.4	11.4	12.2
REPCO	Buy	238	0.2	5.0	4.7	0.7	0.6	2.4	2.4	15.6	14.3
Vehicle Finance											
SHTF	Buy	997	3.0	10.0	8.7	1.1	1.0	2.1	2.4	12.7	12.6
MMFS	Buy	171	1.5	21.6	18.9	1.4	1.3	1.3	1.4	7.3	7.0
CIFC	Buy	376	4.2	18.8	16.1	3.2	2.7	2.4	2.5	18.4	18.1
Diversified											
BAF	Neutral	5,184	41.5	71.9	39.3	8.6	7.2	2.6	4.2	12.6	19.9
SCUF	Buy	1,043	0.9	8.0	7.1	0.9	0.8	2.9	3.2	11.3	11.5
LTFH	Buy	90	2.4	19.3	8.4	1.2	1.1	0.8	1.9	6.4	13.4
INDOSTAR	Neutral	324	0.5	96.5	26.5	1.0	1.0	0.4	1.4	1.3	3.8
MAS	Buy	923	0.7	32.2	26.8	4.5	4.0	3.5	4.1	14.9	15.9
Gold Finance											
MUTH	Buy	1,188	6.5	13.6	11.6	3.3	2.7	6.6	6.8	27.0	25.6
MGFL	Buy	164	1.9	8.4	6.9	1.9	1.6	5.4	5.8	25.6	25.1
Wholesale											
PIEL	Buy	1,407	4.1	12.8	11.0	1.0	1.0	0.0	0.0	8.4	9.4
ABCL	Buy	85	2.8	11.3	8.6	0.9	0.7	1.4	1.5	8.7	8.9

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 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, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). 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 CCR 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://onlinereports.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 Advisors 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
- received compensation/other benefits from the subject company in the past 12 months
- 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.

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 alterations 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 71934200/ 022-71934263; Website www.motilaloswal.com.CIN no.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai-400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP0000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs,Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.