



The Economy Observer

India's debt grew moderately in 1QFY24

Corporate debt increased slowly, while Household debt growth reached a 22-quarter high

- India's non-financial sector (NFS) debt grew 12.1% YoY in 1QFY24/2QCY23 (quarter-ending Jun'23), same as in the previous quarter, but weaker than 13.2% YoY in 1QFY23. Outstanding NFS debt touched USD5.6t (or INR459.5t) in 1QFY24, equivalent to 165.5% of GDP, compared to 164.7% of GDP each in 4QFY23 and 1QFY23. In real terms, however, total debt (using GDP deflator) grew 11.9% YoY in 1QFY24, the highest in the past 17 quarters.
- Within NFS debt, non-government non-financial (NGNF) debt also grew 10.3% YoY in 1QFY24, while government debt jumped 13.9% YoY over the quarter. Within the NGNF sector, household (HH) debt spiked 18.6% YoY in 1QFY24 marking the highest growth in 22 quarters driven by a decade-high growth of ~20% YoY in the non-mortgage debt segment. Corporate debt, on the other hand, rose by just 3.9% YoY during the quarter, almost as weak as 2.7% YoY growth in 4QFY23, but slower than 10.8% YoY growth in 1QFY23. This weakness in corporate debt is in line with the dip in corporate investments that we had highlighted in our earlier report.
- An analysis of NGNF debt by sources/lenders suggests that NBFCs posted a strong lending growth of 18.8% YoY in 1QFY24, the highest in 18 quarters and compared to 16% YoY in 4QFY23, while HFCs' outstanding loans are estimated to have grown at four-year high of 8.1% YoY in 1QFY24. Scheduled commercial banks (SCBs) and corporate bond issuances also grew decently; however, external/foreign borrowings were up just 1.8% YoY as interest rates have surged abroad.

India's NFS debt stood at USD5.6t (or INR459.5t) in 1QFY24 vs. USD5.5t/USD5.2t in 4QFY23/1QFY23 India's NFS debt grew 12.1% YoY; stood at 165.5% of GDP in 1QFY24: Our estimates suggest that India's NFS debt stood at USD5.6t (or INR459.5t) in 1QFY24 (quarterending Jun'23), vs. USD5.5t/USD5.2t in 4QFY23/1QFY23 (Exhibit 1). Although NFS debt growth remained unchanged at 12.1% YoY in 1QFY24, NGNF debt grew slightly faster by 10.3% YoY (vs. 9.4% YoY in 4QFY23), though government debt grew 13.9% YoY during the quarter (vs. 14.8% YoY). In 1QFY24, for the second consecutive quarter, the NGNF sector's contribution to NFS debt growth was lower than that of the government in 4QFY23.

Compared to 12.1% nominal growth, NFS debt in real terms (using GDP deflator) grew 11.9% YoY in 4QFY23, the highest in the past 17 quarters as GDP deflator (which is predominantly derived from the wholesale price index, WPI) was almost negligible in 1QFY24 (Exhibit 2). Further, since India's annualized nominal GDP grew 11.6% in 1QFY24, India's NFS debt inched up to 165.5% of GDP, compared to 164.7% of GDP each in 4QFY23 and 1QFY23 (Exhibit 3).

Exhibit 1: India's domestic NFS debt estimates

	USD t			As a percentage of GDP ¹			YoY (%)		
	FY20	FY21	FY22	FY23	1QFY23	4QFY23	1QFY24	4QFY23	1QFY24
Households* (HH)	0.9	1.0	1.1	1.2	34.7	36.6	36.9	18.4	18.6
Non-financial corporate ² (NFC*)	1.3	1.4	1.5	1.4	45.7	42.8	42.6	2.7	3.9
General government	2.0	2.4	2.7	2.8	84.3	85.4	86.0	14.8	13.9
Central government	1.3	1.6	1.8	1.9	56.7	57.5	58.3	16.1	14.8
State governments ³	0.7	0.8	0.9	0.9	27.6	27.9	27.7	12.0	11.9
Non-financial sector (NFS)	4.2	4.9	5.3	5.5	164.7	164.8	165.5	12.1	12.1
Non-government non-financial (NGNF)	2.2	2.5	2.6	2.6	80.4	79.4	79.5	9.4	10.3

Source: Reserve Bank of India (RBI), Ministry of Finance (MoF), Comptroller and Auditor General (CAG), Bloomberg, Company reports, MOFSL

Nikhil Gupta - Research analyst (Nikhil.Gupta@MotilalOswal.com)

Tanisha Ladha – Research analyst (Tanisha.Ladha@MotilalOswal.com)

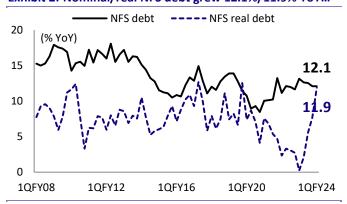
¹ Annualized nominal GDP = Sum of the last four quarters to smoothen the sharp changes in nominal GDP on a quarterly basis

² Estimates included in this report are based on our calculations. Bank for International Settlements also provides India's HH and NFC debt estimates, which are available up to 4QFY23/1QCY23 and different from our estimates. *Please see Appendix at the end of the report for methodology.

³ Debt estimates of state governments (based on fiscal deficit of 27 states) are prepared by us

E(@S(@PE

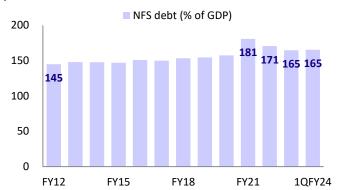
Exhibit 2: Nominal/real NFS debt grew 12.1%/11.9% YoY...



Deflated by GDP deflator

Please see Appendix at the end of the report for methodology

Exhibit 3: ...while debt-to-GDP ratio was 165.5% in 1QFY24



Source: RBI, MoF, CAG, Bloomberg, Company reports, CEIC, MOFSL

GG debt stood at 86% of GDP in 1QFY24, up from 84.3% in 1QFY23 and 85.4% of GDP in 4QFY23 Government debt growth the weakest in three years in 2QFY23...: NFS includes three major domestic economic sectors – HH, non-financial companies (NFCs, private and state-owned), and general government (GG, Center + States). During the previous two quarters (2Q/3QFY23), NGNF debt grew faster than government debt; thus, contributing more to the NFS debt growth. This, however, reversed in 4QFY23 and 1QFY24. GG debt rose 13.9% YoY in 1QFY24, slower than 14.8% YoY growth seen in 4QFY23 (*Exhibit 4*). Our estimates also suggest that GG debt stood at 86% of GDP in 1QFY24, up from 84.3% in 1QFY23 and 85.4% of GDP in 4QFY23. Center and state governments' debt jumped 14.8% and 11.9% YoY, respectively, in 1QFY24. Accordingly, while the center's debt moved up to 58.3% of GDP in 1QFY23 (only second since FY07 to 58.6% of GDP seen in 4QFY21), it eased to 27.7% of GDP for states in 1QFY24 vis-à-vis 27.9% of GDP in 4QFY23.

Exhibit 4: NGNF debt grew slower than government debt for second quarter in 1QFY24

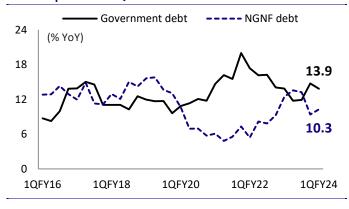
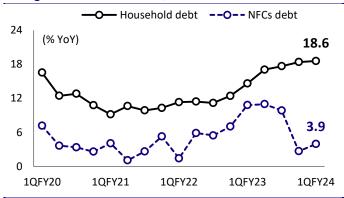


Exhibit 5: HH debt grew at a 22-quarter high, but corporate debt growth was weak in 1QFY24



Source: RBI, MoF, CAG, Bloomberg, Company reports, CEIC, MOFSL

NGNF debt growth picked up to 10.3% YoY in 1QFY24, compared to 9.4% growth in 4QFY23 ...while NGNF debt growth accelerated: In contrast, NGNF debt growth picked up to 10.3% YoY in 1QFY24, compared to 9.4% growth in 4QFY23. As a percentage of GDP, NGNF debt stood at 79.5% in 1QFY24, lower than 80.4% in 1QFY23, but same as 79.4% in 4QFY23. For almost a decade, between FY12 and FY21, NGNF debt (as percentage of GDP) was higher than the government debt in India, which reversed since FY22. Now the government debt is higher than NGNF debt in India, just like in the pre-FY12 period.



Within the NGNF sector, HH debt spiked at 18.6% YoY in 1QFY24, marking the highest growth in 22 quarters. In contrast, corporate debt grew by only 3.9% YoY during the quarter, nearly as weak as 2.7% YoY growth in 4QFY23 and slower than the 10.8% YoY growth in 1QFY23 (Exhibit 5). This weakness in corporate debt is in line with the dip in corporate investments that we had highlighted in our earlier report.

Since HH debt grew faster than nominal GDP, it surged to 36.9% of GDP in 1QFY24 vs. 35.9% of GDP in FY22, but lower than its peak of 37.8% in FY21 (*Exhibit 6*). NFC debt, according to our estimates, stood at a 15-year low of 42.6% of GDP in 1QFY24, compared to 45.7% of GDP in 1QFY23.

Exhibit 6: HH debt-to-GDP growth stood at 36.9% of GDP in 1QFY24...

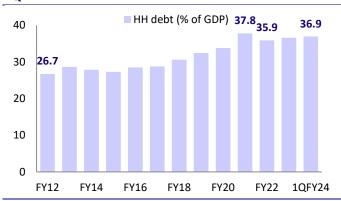
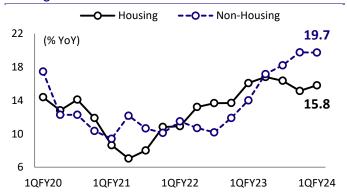


Exhibit 7: ...and non-housing debt surged faster than housing debt



Source: RBI, MoF, CAG, Bloomberg, Company reports, CEIC, MOFSL

Non-housing debt increased at a decade-high rate of 19.7% YoY, while housing debt grew 15.8% YoY in 1QFY24 Importantly, within HH debt, non-housing debt continued to grow much faster than housing debt (*Exhibit 7*). Non-housing debt increased at a decade-high rate of 19.7% YoY, while housing debt grew 15.8% YoY in 1QFY24. Accordingly, non-housing debt accounted for 71% of HH total debt. As highlighted in our <u>recent report</u>, while housing debt is very low in India compared with other economies, the non-mortgage HH debt is the same as in Australia and Japan, and higher than the world's several other major nations.

Sources of borrowings for the NGNF sector

There are six major official sources from where a company or an individual can borrow in the country – scheduled commercial banks (SCBs), non-banking finance companies (NBFCs), housing finance companies (HFCs), corporate bonds (CBs), commercial papers, and foreign borrowings (also known as ECBs). An individual can borrow from the first three sources, while NFCs can raise borrowings through any of these six sources. To estimate the true extent of India's debt, we have adjusted the intra-financial sector lending (SCBs to NBFC/HFCs, etc.). Please refer to *Appendices 1 and 2* at the end of the report for further details.

Bank lending to the NGNF sector rose 10.2% YoY in 1QFY24, same as in 4QFY23, but slower than 13.2% YoY growth in 1QFY23 An analysis of NGNF debt by sources/lenders suggests that the bank lending to the NGNF sector (after adjusting for intra-financial sector loans) rose 10.2% YoY in 1QFY24, which was the same as ~10% YoY in 4QFY23, but slower than 13.2% YoY growth in 1QFY23. Interestingly, the share of banks in India's NGNF debt was 56.9% in 1QFY24, unchanged from 4Q/1QFY23. Corporate bond issuances (after adjusting



for the financial sector), grew 7.5% YoY last quarter, better than 3.7% growth in 4QFY23, but much slower than double-digit growth in the previous six quarters.

NBFCs loan book, on the other hand, grew 18.8% YoY in 1QFY24, marking its highest growth in 18 quarters NBFCs loan book, on the other hand, grew 18.8% YoY in 1QFY24, marking its highest growth in 18 quarters, since the IL&FS defaulted in late 2018. With such strong growth, its share in NGNF debt jumped to 15.5% in 1QFY24, the highest on record.

HFCs loan book also grew at a 16-quarter high of 8.1% YoY in 1QFY24. However, this growth was still less than half the NBFCs loan growth. The combined loan book of NBFCs and HFCs – about 22% of NGNF debt – grew 15.4% YoY in 1QFY24. This implies that NGNF debt, excluding NBFCs/HFCs, rose 8.9% in 1QFY24.

Exhibit 8: Drivers of NGNF debt growth in 1QFY24

	INR t				YoY (%)				
_	FY20	FY21	FY22	FY23	1QFY23	2QFY23	3QFY23	4QFY23	1QFY24
Banks*	94.4	99.8	109.8	120.6	13.2	15.5	14.9	9.9	10.2
NBFCs	24.6	27.0	29.1	33.7	9.2	10.3	10.7	16.0	18.8
HFCs	12.2	12.9	13.4	14.0	3.1	0.7	2.6	4.3	8.1
Corporate bonds#	20.2	21.6	25.7	26.7	15.2	13.7	14.9	3.7	7.5
Commercial paper@	2.3	2.4	2.3	2.1	-1.4	11.1	0.0	-8.0	17.0
ECBs^	14.9	17.2	17.4	19.1	19.6	18.0	15.0	9.8	1.8
NGNF debt	168.6	181.0	197.7	216.3	12.4	13.6	13.2	9.4	10.3
Memo: NBFCs + HFCs	36.8	40.0	42.5	47.7	7.1	7.1	8.1	12.3	15.4
Total excl. NBFCs + HFCs	131.8	141.0	155.2	168.5	13.9	15.4	14.7	8.6	8.9
Non-bank lenders	74.2	81.2	87.9	95.6	11.5	11.2	11.1	8.8	10.4

^{*}Excludes loans to the financial sector @Excludes commercial paper issued by NBFCs Please see *Appendix* at the end for details

Overall, our estimates suggest that corporate debt growth continues to remain sluggish, while household and government debt experienced faster growth in India in 1QFY24. These trends broadly align with those observed in the previous quarter and also correspond with the investment growth observed by these economic participants.

It is also important to note that within household debt, non-housing loans grew faster than housing loans for the fourth successive quarter in 1QFY24.



Appendix: Estimating total debt in the domestic NGNF sector

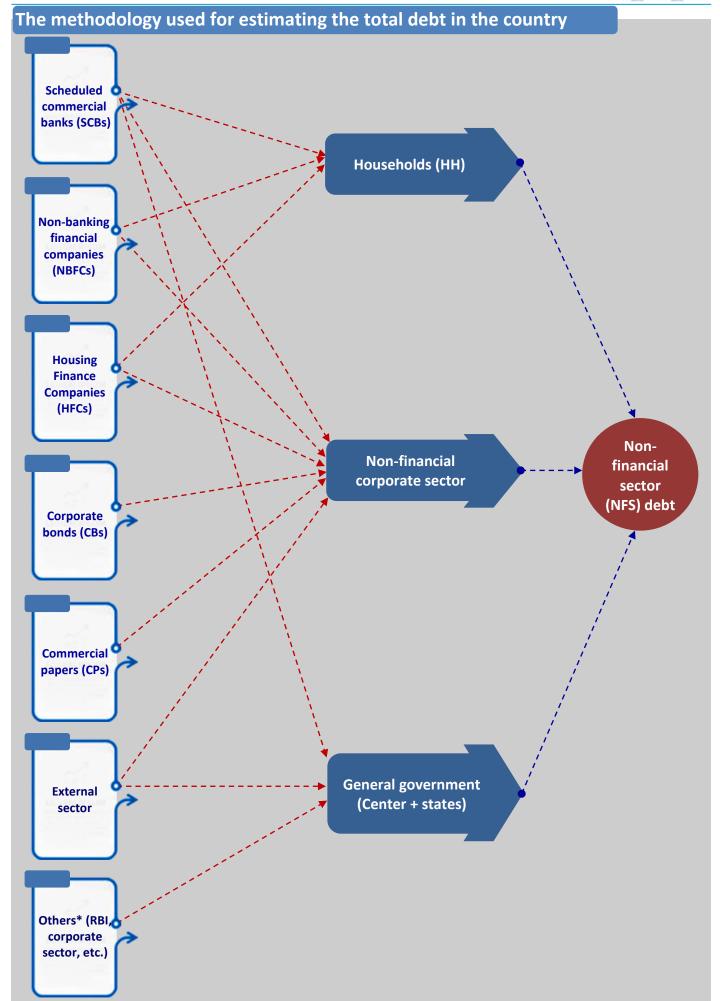
SCBs, NBFCs, and HFCs are the three major institutional sources of lending available to the HH and corporate sectors, which together constitute the NGNF sector. We use loans and advances data from these financial companies to estimate the total debt of the NGNF sector. Apart from these three sources, the NGNF sector borrows through CPs, CBs, and ECBs. We gather data on the following six relevant parameters, making suitable adjustments to avoid double counting:

- SCBs' loans and advances, excluding their lending to the Financial sector
- Loan book data for NBFCs from the RBI's annual/bi-annual publications (titled: 'Report on Trend and Progress of Banking in India', 'Financial Stability Report') available up to 1HFY23. For quarterly data, we have compiled the data of 17 NBFCs, accounting for about three-fifths of the entire industry (list of NBFCs is provided in Exhibit 13).
- The loan book for HFCs that is also available from the RBI's Report on Trend and Progress of Banking in India and National Housing Bank Report, which provides data up to FY22. For quarterly data, we have compiled the data of nine HFCs, accounting for ~80% of the entire industry (list of HFCs is provided in Exhibit 13).
- Outstanding corporate bonds, adjusted for debentures, issued by NBFCs, HFCs, and Tier II capital of SCBs (assumed at 2% of Banks' loan books).
- Outstanding CPs, adjusted for NBFC/HFC issuances.
- Long- and short-term external debt (ECBs + INR debt) raised by the NGNF sector, adjusted for Foreign Institutional Investor (FII) exposure to corporate bonds.

Exhibit 9: List of 17 NBFCs and 9 HFCs used for quarterly analysis

NBFCs (~60% of the industry)	HFCs (~83% of the industry)
1. Bajaj Finance	1. HDFC
2. Cholamandalam Investment and Finance Co	2. HUDCO
3. IIFL Finance	3. LIC Housing
4. JM Financial	4. Indiabulls Housing
5. L&T Financial	5. Sundaram BNP Finance
6. Mahindra & Mahindra Finance	6. PNB Housing Finance
7. Magma Finance	7. Canara Home Finance
8. Manappuram Finance	8. Reliance Home Finance
9. Muthoot Finance	9. Repco Home Finance
10. Reliance Capital	
11. Shriram Finance	
12. Sundaram Finance	
13. Power Finance	
14. REC	
15. PTC India financial services Ltd.	
16. Piramal Finance	
17. Aditya Birla Capital	







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.

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://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, <a href="www.nseindia.co 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 brokerdealer, 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

- 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. MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months 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
- Research Analyst has not served as director/officer/employee in the subject company
- MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months MOFSL has not received compensation for investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months MOFSL has not received any compensation or other benefits from third party in connection with the research report
- MOFSL has not engaged in market making activity for the subject company

19 October 2023



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, not 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.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; 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.:022-40548085. Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; 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.