

Are household finances in India a sign of distress or optimism?

Recent trends are certainly not favorable

- A few months ago, we published a [detailed note](#) discussing the financial position of India's household (HH) sector. Our analysis threw up four key conclusions:
 - Personal disposable income (PDI) has grown at a slower pace than the nation's gross domestic product (GDP) in the last few years.
 - For the first time in the post-independence period, private final consumption expenditure (PFCE) grew at a faster pace than PDI in the 2010s decade, which has continued in the 2020s¹ as well.
 - Household total savings stood at a six-year low in FY23, with net financial savings (NFS) at a four-decade low. It is expected to have picked up in FY24E but still remains at a low level.
 - Household debt has increased sharply in the past many quarters, majorly led by non-housing (or consumption-led) personal loans.
- With these facts, there has been an unsettled debate on whether a combination of weak income growth, lower household savings, faltering consumption growth and rising borrowings represents a distress situation or optimism (high confidence) among consumers. In the light of limited official data available on household finances and even slimmer details, it is not surprising that there are a variety of views and arguments regarding the same. In this note, we share our views and contribute to this debate. We also thought it best to address likely counter-arguments to our views. Overall, we believe that the recent trends in household finances are certainly not favorable and the longer they persist, the more worrisome they will be.
- A look at data reveals that the share of PFCE increased almost every year from its all-time low of 68.5% of PDI² in FY12 to a 27-year high of 77.0% of PDI in FY23 (*Exhibit 1*), which has likely fallen marginally in FY24E. This is so because for the first time in any decade since independence, PFCE growth outpaced that of the PDI growth in the 2010s decade, which continued in the first four years of 2020s decade as well (*Exhibit 2*).
- Further, household total savings stood at 23.3% of PDI (18.4% of GDP) in FY23, very close to the two-decade lowest level of 23% of PDI (18.0% of GDP) in FY16 (*Exhibit 3*). Within savings, net financial savings (NFS) were at a four-decade low of 6.6% of PDI (5.3% of GDP) in FY23 (compared to ~10% of PDI in the pre-Covid years) and physical savings stood at a decade high of 16.6% of PDI (*Exhibit 4*).
- At the same time, HH debt rose from 38% of PDI a decade ago to 48% of GDP in FY23 (*Exhibit 5*). Within HH debt, non-housing borrowings grew faster than housing loans (*Exhibit 6*) in the past few years. The sharp surge in HH debt is reflected in a rise in annual borrowings (i.e., financial liabilities), which were 7.3% of PDI in FY23, the second highest since the 1970s (the peak was 8.5% of PDI in FY07).
- Although the official data on PDI, household savings and debt is not yet available for FY24, it is likely that PDI growth lagged GDP growth once again in FY24, as corporate profits and government receipts grew strongly. If so, since (nominal) PFCE growth was modest at 8.5% YoY in FY24, it suggests pick-up in household total savings to 24% of PDI, led by NFS (estimated at 7.2% of PDI). Household debt is [estimated](#) to have risen to 52% of PDI (40% of GDP) in FY24E.
- With these facts/estimates, we propose a theory to answer the question. The basic tenet of our views is based on a recent development. In the post-pandemic period, the income distribution in India (like many other economies) has very likely become more unequal, with the rich (including the high- and upper-middle income) population witnessing higher income growth since they majorly constitute the regular wage/salaried workers and also own a substantial portion of asset classes such as equity³ and real estate. This recent development/trend plays an extremely important role in highlighting the potential worrying signs in household finances.

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

Tanisha Ladha – Research analyst (Tanisha.Ladha@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 S&P Capital.

Let us say there is a consumer pyramid arranged by income, so that the richest people are at the top and the lowest-income earners make the bottom of the pyramid. One could argue about the steepness and slope of the pyramid and the share of the high-income or poverty-stricken segments, but they are distractions for our discussion here. Now, let's consider the four facts and combine them with our view of rising income inequality (*Exhibit 7*).

Fact#1: Nominal PDI in India has grown at an average of 9.4% in the past five years (FY20-FY24E), compared to an average growth of 10.7% during FY15-FY19 period (and 12% during the 2010s decade).

Our belief of higher income inequality in the recent past comes from our analysis that suggests that income growth for the top of the consumer pyramid has been much higher. Since average growth in PDI has moderated over a period of time, it suggests that the rest of the consumer pyramid (including middle- and low-middle income and low-income sections) must have witnessed a slower-than-national growth in their income in the post-pandemic years.

Fact#2: Nominal/real PFCE in India has grown at an average of 9.9%/4.5% in the past five years (FY20-FY24E), compared to an average growth of 11.6%/7.2% during FY15-FY19 period (and 13.7%/7.4% during the 2010s decade).

It is safe to assume that the consumption growth or pattern of the rich consumers would not have undergone a substantial change in the past few years. If anything, their consumption would have grown at a slightly faster pace than earlier. If so, then the slowdown in consumption growth in the post-pandemic period (which has been more prominent in the past 6-7 quarters) in nominal/real PFCE must have come from the lower middle-to-lowest income consumer class, whose income growth, as we discussed above, has also likely slowed down.

Fact#3: Household total savings stood at a six-year low of 23.3% of PDI (18.4% of GDP) in FY23, which was close to the 20-year low of 23.0% of PDI (18.0% in FY16). It is expected to have picked up to 24% of PDI (19.0%) in FY24E.

It is well established that the saving propensity of the rich people is more than that of the middle- or low-income consumers. With higher income growth, it is then conceivable that total savings of the rich consumers – be it in financial and/or physical assets – would have increased in the post-pandemic years. However, since aggregate savings of the household sector were close to a 25-year low, it means that savings of the middle- to low-income consumers have fallen to such low levels that it entirely offset rising savings of the rich consumers (top of the pyramid).

Fact#4: Household debt stood at 48% of PDI (38% of GDP) in FY23, up from 38% (30%) a decade ago. It is likely to have risen further to 52% of PDI (41%) in FY24E. Details suggest that consumption-led (non-housing) consumer borrowings have risen at the fastest pace.

Household debt has risen in the past few years, with much sharper growth in the last 8-10 quarters. Our estimates suggest that it has risen to ~52% of PDI (41% of GDP) in FY24E, compared to 38% (30%) a decade ago. Details suggest that non-housing personal loans, i.e., consumption-led borrowings, have grown at a faster pace (~20%) than housing loans (~15%). Consequently, the share of non-housing personal loans has increased the most in the past few years. Once again, it is widely acknowledged that the bulk of consumption-led loans are owed to the lower middle- to low-income consumer classes, since the high-income individuals (including upper middle-income) do not borrow for consumption purposes.

Now, let's combine these arguments. Income growth of the middle- to low-income consumer class has been lower than national growth; their consumption weakness is likely to have been the primary cause of faltering national PFCE growth in the past few quarters; the fall in their savings have presumably offset higher savings of the rich-to-upper middle income class pulling down household total savings for the country; and their consumption-led borrowings have surged massively in recent years. Lower income growth, slower consumption growth, falling savings and rising consumption-led debt – these facts do not auger well for any section of society, let alone a very large and widespread middle- to low-income consumer section. This is where the feeling of uneasiness starts creeping into India's growth story and this is where the potential for destabilization lies.

Why is it important?

In his recent monetary policy statement, RBI Governor Mr. Shaktikanta Das answered this question for us. He said, "...Even in such stable financial sector conditions, the emphasis cannot shift away from proactive identification of potential risks and challenges, if any..." We have always been very careful to highlight that the recent trends in household finances in India may not imply immediate concerns. However, they certainly hold the potential for destabilizing the nation's financial stability, if they

continue for long. The combination of weak income growth and lower household savings has continued for about a decade now, while weak consumption growth and a sharp surge in household debt have occurred in the past 8-10 quarters. It is very likely that these trends will continue in the current year as well. Despite such facts, some participants argue that with non-performing loans (NPAs) at such low levels, there is nothing to worry about. Nevertheless, we are of the firm view that the longer these unfavorable trends in household finances continue, the closer we will be to the potential instability and more worrisome we will become. Unfortunately, it is very difficult to ascertain the timing of such events.

What could be the possible counter arguments to our cautious view?

- **What if new-to-credit (NTC) borrowers lead higher loan growth?** If so, this could lead to a higher debt service ratio but need not be concerning. In fact, RBI data confirms that strong growth in recent years is largely driven by the number of loan accounts rather than the amount of loans per account (*Exhibit 8*). However, one must not confuse the number of accounts with the number of borrowers, as many borrowers would have multiple loans (and thus, loan accounts).
- Instead, we would like to highlight some insights about consumer credit from the RBI data that it shared in its bi-annual Financial Stability Report (FSR). In its [Jun'24 FSR](#) (Page 50, para 1.101), the RBI stated “...*little more than a half of the borrowers in this segment have three live loans at the time of origination and more than one-third of the borrowers have availed more than three loans in the last six months...*”. These ratios have increased in the past six months, as the corresponding numbers were 42.7% and 30.4% as per the [Dec'23 FSR](#) (page 59, para 1.137).
- **What if higher loan growth is led by middle of the pyramid, who would be more credit worthy than the population at the bottom?** While this counter-argument would give some comfort, it would also suggest that the income growth at this section is not enough to meet their consumption growth, leading to higher growth in consumption-led borrowings. If so, it would not be very strange to assume that income growth at the bottom of the pyramid would be even weaker, supporting their prominent role in driving weak consumption growth and lower savings.
- **What if income inequality has not risen and our assumption, to start with, is wrong?** This, to our mind, is the least likely counter-argument. It seems really far-fetched, especially considering the consumption patterns of high-ticket items such as cars or housing, wherein the premium segment has witnessed higher sales than the affordable segment. But since there is no official data on the same, one cannot be sure about any one scenario. Further, one could argue that aggressive redistribution policies of the government could have led to better income growth at the bottom of the pyramid and not-so-good income growth at the top. If so, then since rich people do not adjust their consumption habits easily, slower income growth would have led to lower savings by this class, driving lower household savings in the economy. Even then, this scenario fails to explain the rising growth in consumption-led loans and the weakening in overall consumption growth in recent quarters. These two trends must be driven by activities of the consumers closer to the broad base of the pyramid. Even if one assumes that higher borrowings are concentrated in the middle of the consumer pyramid (as explained in the counter-argument #2 above), it would suggest that the weakness in consumption growth at the bottom of the pyramid is very severe.

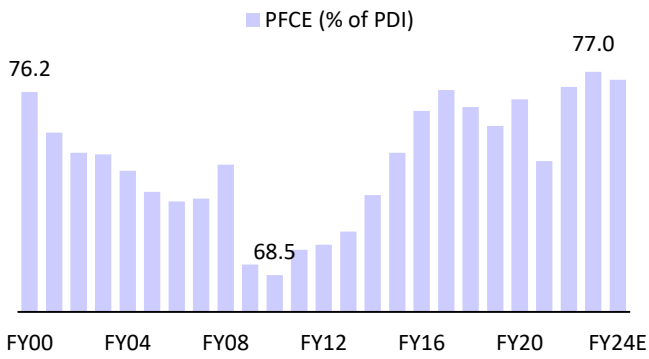
Overall, recent trends in household finances are certainly unfavorable and the longer they continue, the more dangerous they would be for the financial stability of the country. To our mind, they hold the potential to break the current calmness, and thus, extreme caution must be exercised on this front by the policy makers.

¹ 2020s in this note refers to the first four years of the decade – FY21-FY24E. Official data on PDI, household savings and household debt is not yet available for FY24, and thus, we have used our estimates of all these variables.

² Normally, all ratios are derived using GDP as the denominator. However, when we speak of household finances, it is always better to analyze the ratios with PDI as the denominator, wherever possible.

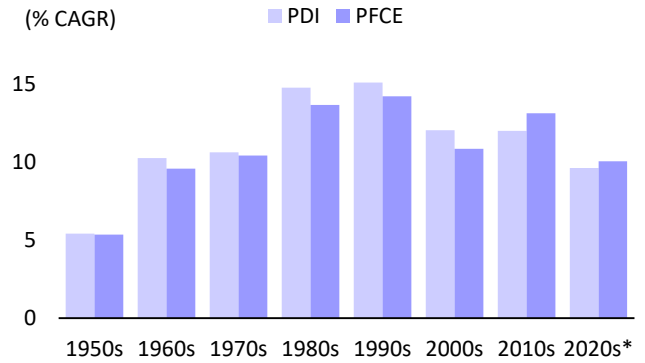
³ In the US, official data confirm that 87% of corporate equities and mutual fund shares are held by top 10% of wealthiest people in the country or the 20% highest income-earners. In a recent post-Budget interview, India's Finance Secretary, Dr. T V Somanathan, stated that “...88% of the value of capital gains earned in India, according to our study, comes from people whose returned income is more than 15 lakh rupees and 62% comes from those who are above 1 crore of returned income...”.

Exhibit 1: The share of PFCE in PDI has increased rapidly in the past many years...



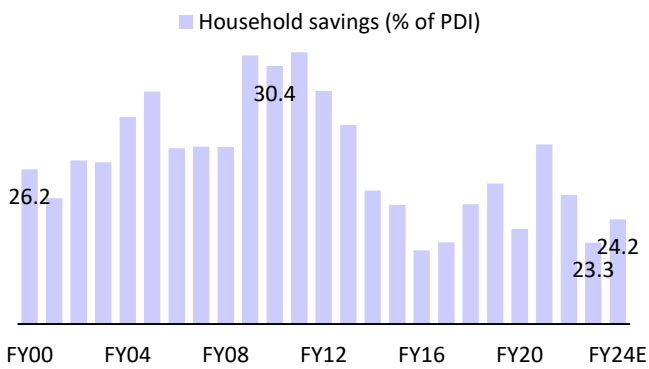
Data on 2004-05 base till 2010-11; on 2011-12 base since then

Exhibit 2: ...as the average PFCE growth outpaced that of PDI for the first time in the 2010s/2020s* decade



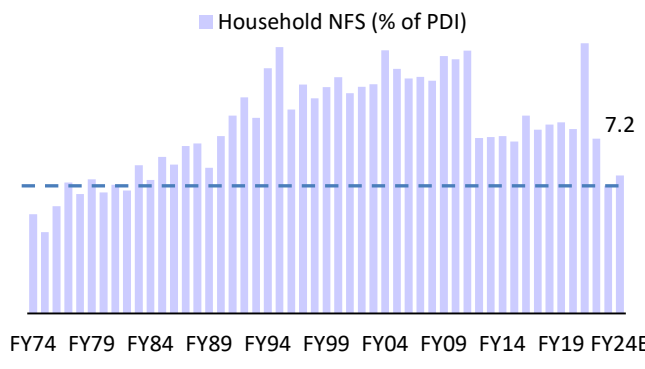
*FY21-FY24E (Official data on PDI is not available for FY24)
Source: Central Statistics Office (CSO), RBI, MOFSL

Exhibit 3: Household savings have declined sharply in recent years, with some recovery in FY24E...



Data on 2004-05 base till 2010-11; on 2011-12 base since then

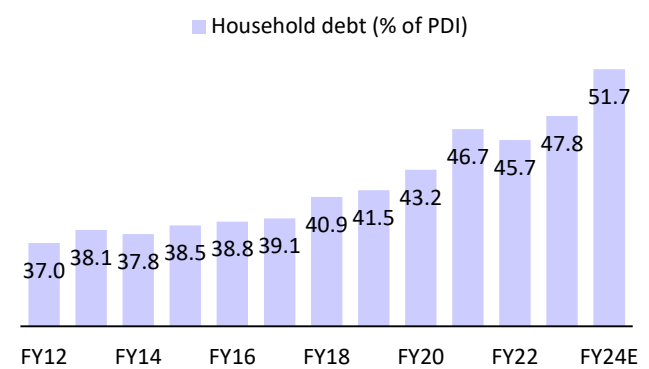
Exhibit 4: ...primarily led by four-decade low NFS amid decade high physical savings



* FY24E is our estimate

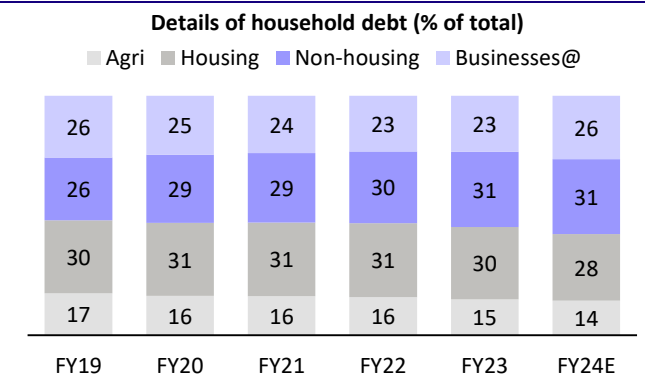
Source: CSO, RBI, MOFSL

Exhibit 5: Household debt rose to 48% of PDI in FY23, from 38% a decade ago...



Official data is available up to FY23; FY24E is our estimate

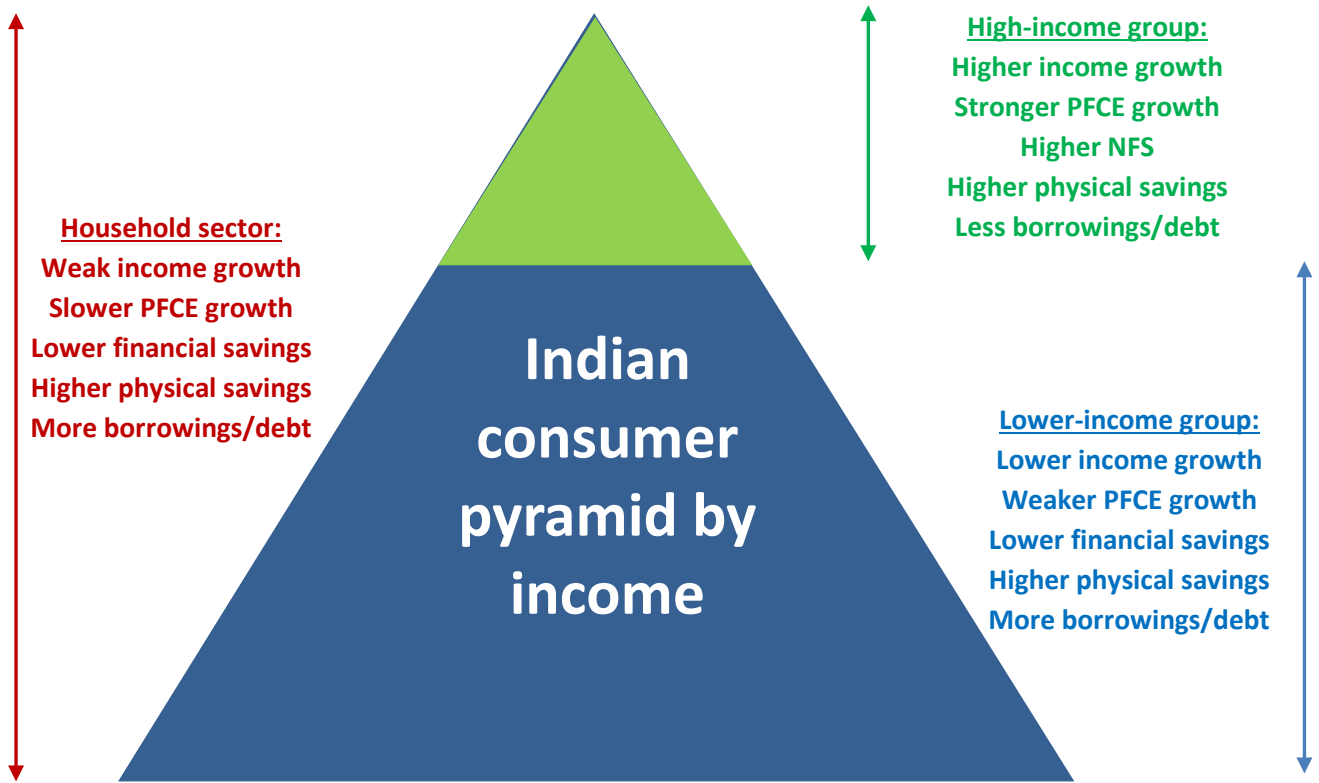
Exhibit 6: ...majorly driven by non-housing (consumption-led) personal loans



FY24E is our estimate

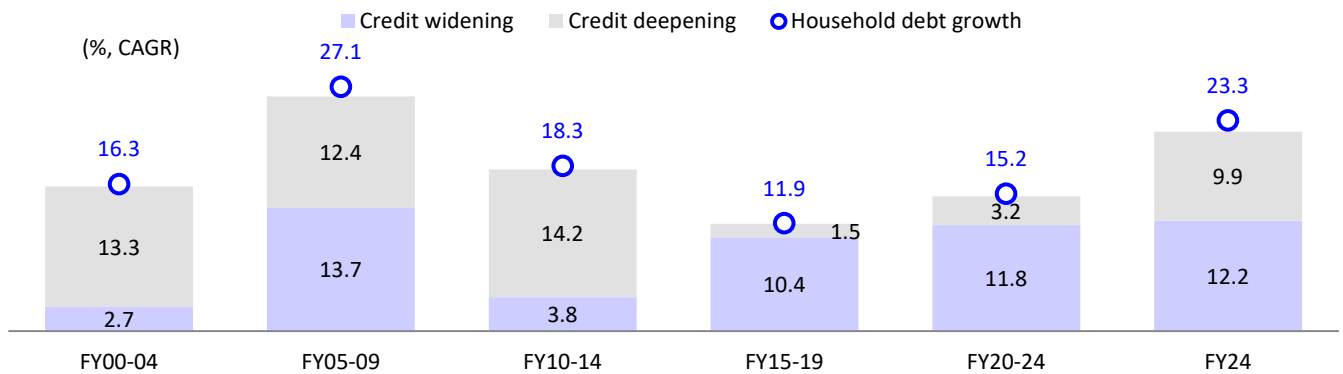
Source: RBI, MOFSL

Exhibit 7: Are the recent trends in household finances a sign of distress or optimism? Answered through a theory using the consumer pyramid by income



Source: MOFSL

Exhibit 8: Break-up of the growth in household debt by number of loan accounts and loan per account



Credit widening = Number of loan accounts; Credit deepening = Amount of Loan per loan account

Source: RBI, MOFSL

NOTES

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://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") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani

Email: nainesh.rajani@motilaloswal.com

Contact: (+65) 8328 0276

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, 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.

This report is meant for the clients of Motilal Oswal only.

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. Hernanqi 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/NCDX); 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.