

India's debt growth remains subdued in 2QFY21

Growth in non-government debt close to a record low in the last two decades

- India's non-financial sector (NFS¹) debt grew 10.5% YoY in 2QFY21, marking the highest growth in five quarters and higher than the record low of 8.2% in 4QFY20. Outstanding NFS debt stood at INR332t, or a fresh high of 174.4% of GDP in 2QFY21 (or 3QCY20), as annualized nominal GDP² declined 3% YoY.
- Within the NFS, general government (center + states) debt grew at a decade high of 16.5% YoY, while non-government non-financial (NGNF⁴) debt grew 5.2% YoY in 2QFY21, similar to record low growth of 5% in 1QFY21. Within the NGNF sector, household debt grew at a decent 9.6% YoY in 2QFY21 (v/s 7.8% in the previous quarter) and non-financial corporate (NFC) debt grew 2.4% YoY, similar to the record low growth of 2.3% YoY posted in 4QFY20 and lower than 3.3% growth in 1QFY21.
- An analysis of NGNF debt by lenders suggests that the loan book of NBFCs and HFCs grew faster (compared to that in 4QFY20 and 1QFY21), while it expanded slowly for other lenders, including scheduled commercial banks (SCBs). Lending by SCBs to the NGNF sector grew only 6% YoY last quarter, a record low. While lending by NBFCs and HFCs picked-up in 2QFY21, it was still way lower than the pre-2020 growth levels.
- Due to COVID-19 and related collapse in economic activity, a jump in the debt-to-GDP ratio across nations was inevitable. However, the increase in India's debt growth in 2020 – to 174.4% in 3QCY20 from 154% at the end of 2019 – was the lowest compared to other major nations such as the US, UK, Japan and China. NFS debt growth in 3QCY20 was close to the highest in 15 years in the US (at 11.5%), the highest in 24 years in Japan (at 5.4%) and the highest in three years in China (at 13.1%).
- We have [earlier](#) argued that COVID-19 may have an adverse impact on India's household income. Combine that with subdued debt growth, a strong revival looks highly ambitious.

India's NFS debt grew 10.5% YoY in 2QFY21 – the highest in the past five quarters and higher than the record low growth of 8.2% YoY in 4QFY20

India's NFS debt grew 10.5% YoY to touch 174.4% of GDP in 2QFY21: Our estimates suggest India's NFS debt stood at INR332t in 2QFY21, up from INR314t in 4QFY20 and INR322t in 1QFY21. Around 92% increase in NFS debt in 1HFY21 was attributable to the government sector, as the corporate sector witnessed a marginal decline and households saw a small growth in their outstanding debt (*Exhibit 1*). India's NFS debt grew 10.5% YoY in 2QFY21 – the highest in the past five quarters and higher than the record low growth of 8.2% YoY in 4QFY20 (*Exhibit 2 on the following page*). Due to a decline in annualized GDP, NFS debt rose from 154% of GDP at the end of 2019 to a record high of 174.4% in 2QFY21 (*Exhibit 3*).

Exhibit 1: Estimates of India's non-financial sector (NFS) debt

	INR b				% of (annualized ²) GDP				% YoY
	FY18	FY19	FY20	2QFY21	FY18	FY19	FY20	2QFY21	
Households*	51,869	59,430	65,428	67,070	30.3	31.3	32.2	35.2	9.6
Non-financial corporate (NFC*)	87,981	98,469	100,777	100,590	51.5	51.9	49.5	52.9	2.4
General government (GG)	120,913	132,549	147,925	164,324	70.7	69.9	72.7	86.3	16.5
Central government	77,988	84,681	94,623	107,043	45.6	44.6	46.5	56.2	17.6
State governments³	42,925	47,868	53,302	57,281	25.1	25.2	26.2	30.1	14.4
Non-financial sector (NFS¹)	260,763	290,447	314,130	331,984	152.5	153.1	154.4	174.4	10.5
Non-government non-financial (NGNF)	139,850	157,899	166,205	167,661	81.8	83.2	81.7	88.1	5.2

*Please see Appendix at end of the report for methodology

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

¹ Non-financial sector = Non-financial corporate sector + household sector + general government (Center + states)

² Annualized nominal GDP = sum/average of last four quarters to smoothen the sharp changes in nominal GDP on quarterly basis

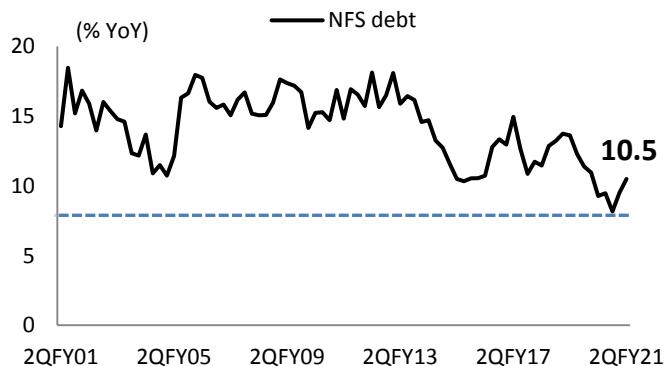
³ Debt of state governments in 1QFY21 is our estimates based on fiscal deficit of 16 states (21 states in FY19 and 19 states in FY20)

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

Yaswi Agarwal – Research Analyst (Yaswi.Agarwal@motilaloswal.com)

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

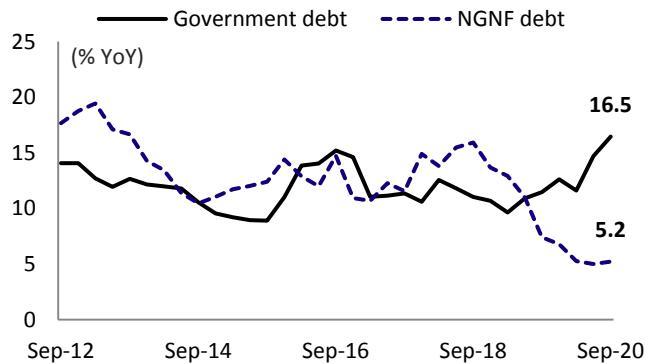
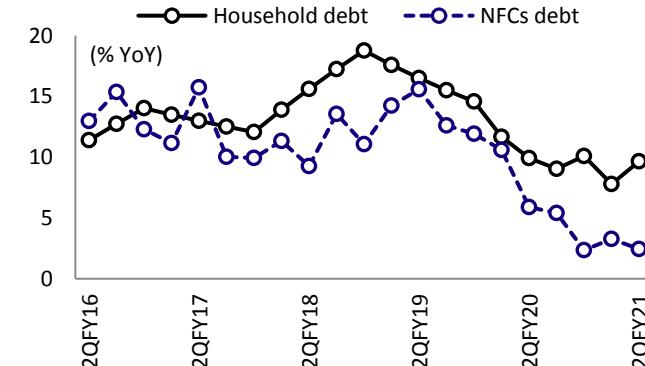
Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Exhibit 2: India's NFS debt grew 10.5% YoY in 2QFY21...

Please see Appendix at the end of the report for methodology

Government debt grew 16.5% YoY in 2QFY21, marking the fastest growth in the past decade and the second highest growth in the past two decades

Government debt grew at decade high in 2QFY21: As explained in the last quarter's [report](#), we have improved on our India debt database by including the quarterly debt of the general government (center + states) along with NGNF debt while estimating NFS debt. Within NFS debt, government debt grew 16.5% YoY in 2QFY21, marking the fastest growth in the past decade and the second highest growth in the past two decades (*Exhibit 4*). While central government debt grew 17.6% YoY in the quarter to a 15-year high of 56.6% of GDP, states' debt (based on actual deficit data for 17 states) is estimated to have increased 14.4% YoY to touch 30% of GDP for the first time in 13 years. Government debt is estimated to have risen to a 14-year high of 86.3% of GDP in 2QFY21 from 72.7% in FY20.

Exhibit 4: Government debt grew at the second-highest level of 16.5% YoY in two decades**Exhibit 5: However, growth in NGNF debt remains subdued at 5.2% YoY in 2QFY21**

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

However, NGNF debt growth was stagnant near record low growth: In contrast, NGNF debt increased by just 5.2% YoY in 2QFY21, marginally better than the record low growth levels of 5% YoY posted in the previous quarter. Within the NGNF sector, while household debt⁴ grew 9.6% YoY (better than 7.8% in the previous quarter), outstanding debt of the NFC sector grew only 2.4% YoY – similar to record low growth of 2.3% YoY posted in 4QFY20 and lower than 3.3% growth in 1QFY21 (*Exhibit 5*).

⁴ As mentioned in our earlier [report](#), we have revised our estimates of India's household debt in line with the recently published data by the [Reserve Bank of India \(RBI\)](#), which released [quarterly outstanding debt](#) of Indian household for the period 1Q FY18 to 4Q FY20. According to the RBI, only about 56% of the HFCs loan book and ~23% of the NBFCs loan book accounted for household debt in FY20.

Household/NFCs debt has risen to a new high of 35.2%/52.9% of GDP in 2QFY21

Due to the sharp decline in nominal GDP (3% on an annualized basis in 2QFY21), NGNF debt rose to a record high of 88.1% of GDP (higher than 86.1% in the previous quarter and 81.7% in FY20). Within the NGNF sector, household and NFCs debt have risen to a new high of 35.2% of GDP (up from 33.6%/32.2% in 1QFY21/4QFY20) and 52.9% of GDP in 2QFY21 (up from 52.4%/49.5% in 1QFY21/4QFY20).

NGNF debt, excluding NBFCs and HFCs, which together accounts for 22% of total debt, grew 3.9% YoY in 2QFY21, better than the record low growth of 1.4% each in the previous two quarters

Sources of borrowings for the NGNF sector

A detailed lender-wise analysis of the NGNF sector suggests credit growth by NBFCs (non-banking financial companies), HFCs (housing finance companies), and foreigners (external commercial borrowings, or ECBs) accelerated, but decelerated for banks, corporate bonds (CBs) and commercial papers (CPs) (*Exhibit 6*).

After growing at record low of 1.3% YoY in 1QFY21 – based on our estimate of 17 individual companies, accounting for ~60% of the NBFC industry (*see Appendix for details*) – NBFCs loan book grew 4.6% YoY in the last quarter, marking the highest growth in three quarters. Loan book for HFCs – based on our estimate of 10 individual companies, accounting for ~8% of the HFC industry (*see Appendix for details*) – grew at 2.3% YoY in 2QFY21, following the record low growth of 0.5% YoY in 4QFY20 (*Exhibit 6*). NGNF debt, excluding NBFCs and HFCs, which together account for 22% of total debt, grew 3.9% YoY in 2QFY21, better than the record low growth of 1.4% each in the previous two quarters.

Bank lending (after adjusting for inter-financial sector) grew by just 6% YoY last quarter, marking the slowest growth in the past two decades. Outstanding CB issued by NFCs grew 7.4% YoY in 2QFY21, better than record low growth of 5.8% YoY in 4QFY20, but weaker than 8.4% growth in the previous quarter.

Exhibit 6: Lending by NBFCs, HFCs and foreigners pick up in 2QFY21

	INR b				% YoY				
	FY18	FY19	FY20	2QFY21	2QFY20	3QFY20	4QFY20	1QFY21	2QFY21
Banks*	79,537	88,807	94,306	94,161	8.0	6.8	6.2	6.6	6.0
NBFCs	19,625	23,157	23,605	24,633	10.2	6.3	1.9	1.3	4.6
HFCs	10,386	11,917	11,971	12,281	6.7	6.8	0.5	1.6	2.3
Corporate bonds#	16,359	18,347	19,411	19,604	8.2	6.9	5.8	8.4	7.4
Commercial paper@	1,265	2,433	2,026	1,714	(15.0)	(4.5)	(16.7)	(21.6)	(35.6)
ECBs^	12,678	13,238	14,886	15,268	4.0	9.3	12.4	5.0	8.6
Total	139,850	157,899	166,205	167,661	7.4	6.8	5.3	5.0	5.2
Memo: NBFCs + HFCs	30,011	35,074	35,576	36,914	9.0	6.5	1.4	1.4	3.9
Total excl. NBFCs + HFCs	109,839	122,825	130,629	130,746	7.0	6.9	6.4	6.0	5.6
Non-bank lenders	60,313	69,092	71,899	73,499	6.6	6.7	4.1	3.0	4.2

*Excludes loans to the financial sector

#Excludes corporate bonds issued by SCBs, NBFCs and banks

@Excludes commercial paper issued by NBFCs

^Excluding FII investments in corporate bonds

Please see Appendix at the end for details

Source: RBI, company reports, Bloomberg, CEIC, MOFSL

Sources of borrowings for the general government (GG)

The borrowers in the government debt market are different from that in the non-government sector. Commercial banks, insurance companies, pension funds and RBI are the primary holders of government securities in India. Together, these four lenders account for 80-85% of all market borrowings by central (including T-bills) and state governments.

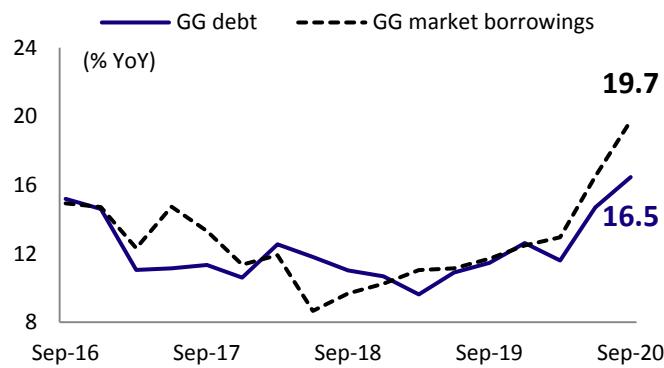
Government bond issuances have grown faster than the rise in its debt

Notwithstanding higher government debt, RBI's share was almost unchanged at 9.6% of the outstanding securities in 2QFY21 vis-à-vis FY20

A detailed lender-wise analysis to the sovereign bond market suggests that government bond issuances have grown faster than the rise in government debt. The latter grew 16.5% YoY in 2QFY21, while the former grew 19.7% (*Exhibit 7*). This suggests that the government has relied more on the market borrowings to finance its rising deficit and debt rather than non-market borrowings (such as national small saving funds, etc.)

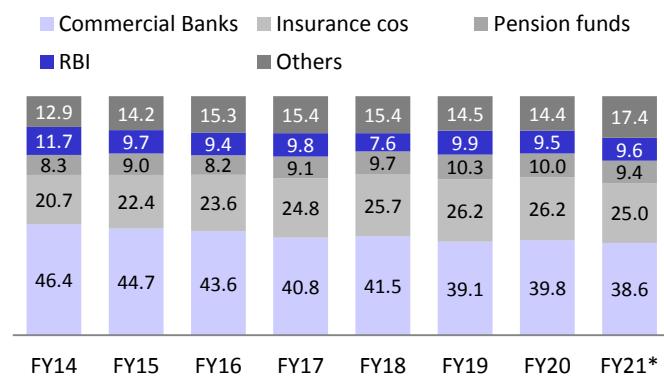
While total market debt of the general government increased to INR117t in 2QFY21 from INR103t in FY20, the share of RBI was almost unchanged at 9.6% of outstanding securities (*Exhibit 8*). This is in sharp contrast to the monetary policy adopted by most major economies in the world during COVID-19, where central banks have been the primary buyer and financier of higher government deficit. In fact, the share of the three largest buyers of government securities – commercial banks, insurance companies and pension funds – has actually declined in 1HFY21, which was offset by smaller buyers such as mutual funds (whose share rose to 3.7% in 2QFY21 from 2% in FY20) and all-India financial institutions (to 1.6% from 0.4%).

Exhibit 7: Market borrowings of the general government (GG) have grown faster than debt...



The growth in India's debt in 2020 was the lowest compared to other major nations such as the US, UK, Japan and China

Exhibit 8: ...which was absorbed by small buyers such as MFs and FIs



Growth in India's NFS debt was weaker compared to other major nations

Owing to the COVID-19 pandemic and related collapse in economic activity, a jump in the debt-to-GDP ratio across nations was inevitable. A comparison between India and other major nations suggests that not only was the NFS debt-to-GDP ratio in India lower relative to other economies, but debt growth was slightly better than in previous quarters. India's NFS debt increased to 174.4% of GDP in 2QFY21 from 154% at the end of 2019, a jump of 20 percentage points (pp). In contrast, it rose by as much as 33pp of GDP in the US, 32pp in the UK, 36pp in Japan, and 25pp in China (*Exhibit 9*). The contribution of NFS debt growth to the surge in NFS debt-to-GDP ratio in India was the lowest in 3QCY20 (*Exhibit 10*).

Exhibit 9: NFS debt-to-GDP ratio rose by the lowest (21pp) in India in CY20*...

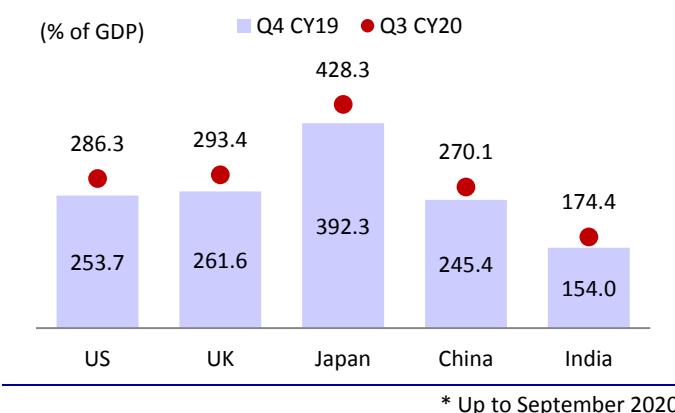
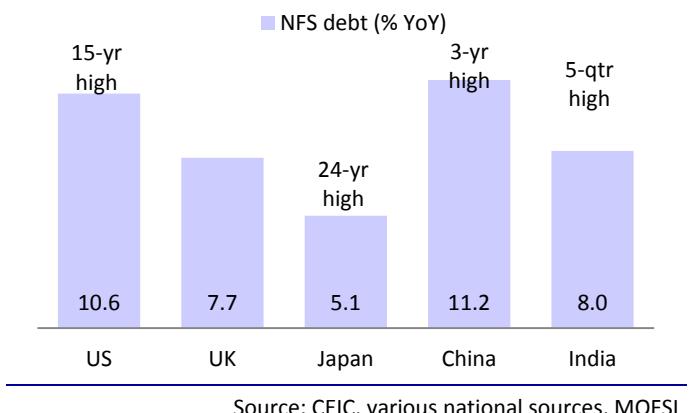


Exhibit 10: ...and debt growth was also slower than most other major economies



Source: CEIC, various national sources, MOFSL

Comparing debt growth in India with that in other nations would be highly misleading, considering the differential GDP growth rates in various economies. It is therefore better to compare the uptick in NFS debt growth in 2QFY21 (or 3QCY20) vis-à-vis historical trends in the economy. Even then, India's performance is weaker than the performances of other nations.

Comparison of NFS debt in a country with its history suggest that while it is at multi-year high in most countries, it was only at five-quarter high in India in 3QCY20

India's NFS debt growth of 10.5% YoY in 3QCY20 was the highest in five quarters and marginally better than the record low growth of 8.2% in 4QFY20 (*Exhibit 11*). Growth of 11.5% YoY in US' NFS debt was close to the highest in 15 years and more than double the average growth of ~5% in the past few years. In Japan, while NFS debt grew only 5.4% YoY in 3QCY20, it marked the highest growth seen in 24 years (v/s average growth of 2-3% in the past few years). In China, it stood at 13.1% in 3QCY20, a three-year high.

When we had updated our database with 1QFY21 debt last quarter, we concluded that the marginal uptick in India's NFS debt, vis-à-vis other major nations, may be because of the delayed response by the government since the credit guarantee scheme was announced by the Government of India (GoI) in mid-May'20, while it was implemented much earlier (Mar-Apr'20) in other nations (included in our report). However, the tepid NGNF growth in 2QFY21 confirms that the scheme has failed to yield desired results in terms of boosting credit growth in the country.

We have [earlier](#) argued that COVID-19 may have an adverse impact on household income in India. Combine that with subdued debt growth, a strong revival looks highly ambitious.

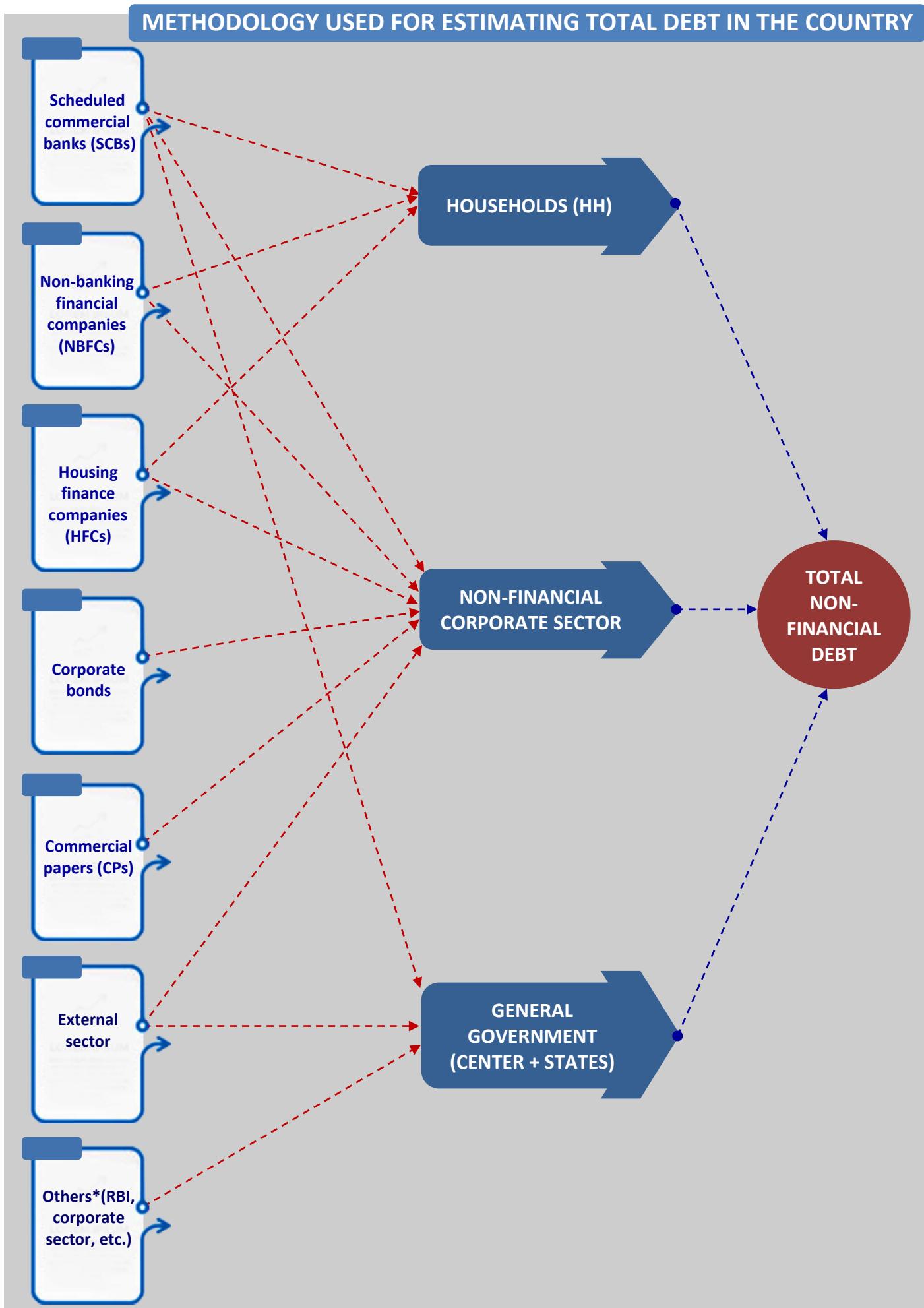
Appendix: Estimation of total debt of India's NGNF sector

SCBs, NBFCs, and HFCs are the three major institutional sources of lending available to households and the corporate sector, 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 RBI's annual publication, titled '*Report on Trend and Progress of Banking in India*' and the bi-annual '*Financial Stability Report*', is available up to 1HFY21. 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 below*).
- Loan book for HFCs is also available from RBI's *Report on Trend and Progress of Banking in India*, which provides data up to FY20. For quarterly data, we have compiled the data of 10 HFCs, accounting for ~84% of the entire industry (*list of HFCs in the table below*).
- Outstanding corporate bonds adjusted for debentures issued by NBFCs, HFCs, and Tier II capital of SCBs (assumed at 2% of banks' loan book).
- Outstanding CPs, adjusted for NBFC/HFC issuances.
- Long-term and short-term external debt (ECBs + INR debt) raised by the NGNF sector, adjusted for foreign institutional investor (FII) exposure to corporate bonds.

Exhibit 11: List of 17 NBFCs and 10 HFCs used for quarterly analysis

NBFCs (~60% of the industry)	HFCs (~84% 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. Dewan Housing
6. Mahindra & Mahindra Finance	6. Sundaram BNP Finance
7. Magma Finance	7. PNB Housing Finance
8. Mannapuram Finance	8. Canara Home Finance
9. Muthoot Finance	9. Reliance Home Finance
10. Reliance Capital	10. Repco Home Finance
11. Shriram City Union	
12. Shriram Transport Finance	
13. Sundaram Finance	
14. Power Finance	
15. REC	
16. Piramal Finance	
17. Aditya Birla Capital	



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 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 - MOFSL) 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/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. 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. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months , MOFSL or any of its associates may have:

1. managed or co-managed public offering of securities from subject company of this research report,
2. received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
3. received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
4. Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the 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. 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. 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.

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.

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.

Disclosure of Interest Statement	Companies where there is interest
Analyst ownership of the stock	No

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 Financial Services Limited(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.

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, 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.

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.: INP000004409) 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.