

Prioritizing profitable growth; retail segment to be key growth driver

Multiple earnings levers to help BoB sustain RoA/RoE

We organized a boardroom event with the management of Bank of Baroda, represented by Mr. Sanjiv Chadha (MD and CEO), Mr. Debadatta Chand (ED), and Mr. Joydeep Dutta Roy (ED), to discuss the macro-economic environment and the bank's growth and profitability outlook. Key insights from the discussion are highlighted below:

Underwriting, margins and growth in focus; retail segment to drive growth ahead

Management noted that underwriting, margins and growth are the key focus areas and the bank will not pursue opportunities that are not profitable or do not meet its underwriting standards. However, the bank will ensure that it does not lose market share. The retail segment is witnessing healthy traction and the bank expects retail loans to account for 35% of total loans in the medium term (v/s 25% now). The corporate segment is expected to form 35% of total loans in the medium term (v/s 43-44% now). Although overall credit growth is likely to moderate in FY24, the bank aims to grow slightly higher than the industry.

Huge opportunity in unsecured segment; BoB World witnessing faster growth

Among the business segments, unsecured personal loans have seen robust 170%+ YoY growth in Dec'22 and the segment has potential to grow ~3-4x in the next 3-4 years, which should significantly boost growth and profitability for BoB. SBIN has an unsecured personal loan book of >INR3t v/s BoB's ~INR170b. Ideally, BoB should be about one-fourth of SBIN, thus providing significant room for growth. Growth in education loans is ~1.5x of the market, while demand in the vehicle segment is moderating. The BoB World app is making a significant contribution to growth and account openings, with a registered customer base of 29m v/s 50m for SBIN. Within the agri portfolio, the share of gold loans is increasing, which helps BoB mitigate credit quality challenges and de-risk the book.

BoB well placed to capture growth opportunities; overseas loan growth to be comparable to domestic growth

Growth in corporate advances is a function of market growth. After Covid, the private investment cycle is yet to start on a broader scale. BoB is well positioned to capitalize on the opportunity; however, it will not be chasing growth by diluting its underwriting standards. The bank has hired a senior professional as the head of corporate relationship to ensure continuity. On the overseas book, in the past few years when growth in India was subdued, BoB witnessed strong growth in overseas markets. However, going ahead, the domestic and international books should grow at a comparable rate.

Margins to remain buoyant on improving asset mix and continued re-pricing benefits in corporate portfolio

Since BoB is not focusing much on branch additions, deposit mobilization will be largely driven by existing capacity utilization and digital channels/BCs/fintech partnerships. About 70% of transactions happening outside the branches are handled by BCs. Around 25% of deposits are held by 0.2% of depositors, which provides huge opportunity to tap this depositor base and cross sell various financial products. Margins have largely peaked out in terms of the lag effect of deposit cost re-pricing and pass-through of lending rates. However, structural factors such as the rise in the mix of personal loans and improved pricing in corporate will continue to drive margins. International growth will also moderate, which will support margins, though spreads in the international book have improved to 1.8% from 1.25% earlier. The repricing of corporate debt is continuing, while the migration to AA/A from AAA-rated papers will happen at a calibrated rate, which is likely to support margins.

Bank of Baroda



Mr. Sanjiv Chadha
MD & CEO, BoB

Mr. Chadha joined BoB as the MD & CEO in 2020. He has over 35 years of experience in banking and financial services, having started his career with SBI in 1987. He is an alumnus of St. Stephen's College, Delhi

Asset quality remains under control; credit cost to moderate further

The asset quality remains under control, while a strong PCR provides comfort. The bank has hired talent from outside and formed a collection vertical, which has kept the collection levels healthy. Within the corporate book, NPAs are fully provided for, while the SMA book has come off sharply to 0.4% from 2.5% earlier. Further, the retail book was also stress-tested during Covid and is now normalizing (most of the unsecured loans are to ETB customers). The bank believes that there remains a scope for slippages/credit costs to moderate further, while recoveries could also moderate, which are now coming from some small-ticket accounts. The bank does not expect much impact of ECL migration; it has not worked on the provisioning requirement internally and is in touch with the RBI to seek clarification on this. Interest rates in India are at the level they were 3-4 years back, unlike other countries where rates are at multi-decade highs. Thus, BoB does not expect it to trigger higher delinquencies.

Capitalization level remains healthy; aiming to deliver sustainable RoA of 1%+ and RoE of 16%

Despite strong growth in FY23, the capitalization levels remain higher than the FY22 level, and thus the bank will not need to raise capital to fund growth in the near term. BoB aims to increase the fee-to-asset ratio to ~1% from 0.7% currently. It is one of the top 5 mobilisers of life insurance in the country, while the card business is gaining traction and can create shareholder value. The MF business is the third in priority as it has limited potential to create value. Bancassurance fee income grew by 40% in FY22, which should remain flat in FY23. Corporate fees will also gain traction and support the fee income growth. For the wealth management business, RMs have been hired to drive this business and the bank will add 300 wealth managers in FY23. Around 200 corporate RMs will be added to drive the corporate fee income. Overall, BoB aims to deliver a sustainable RoA of 1%+ and RoE of 16%+.

Other highlights

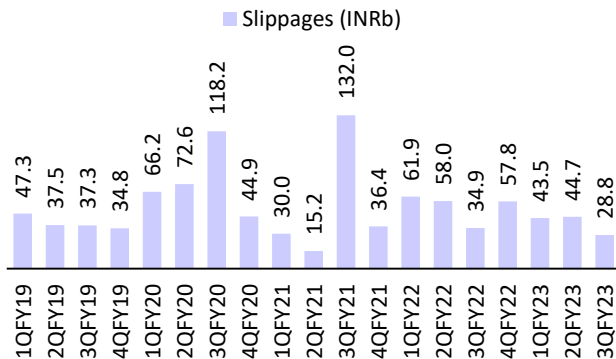
- **Attrition rate among GM+ level staff is just 0.1%.** While the compensation is low, work satisfaction and freedom are the compensating factors. BoB is open to hiring talent from outside by paying market salaries and building a performance-oriented culture. It has people who were recruited from the market and have stuck around for 6-7 years.
- **BoB has been able to achieve PSLC requirements** across segments and could have sold some PSLCs but refrained because of inadequate pricing.
- **Co-lending partnerships:** The book is pretty small right now, but it has enormous potential. SME lending is likely see a boost from this.
- **Tenure of CEO will be five years instead of three years** and subject to an extension of another five years. This will largely bring PSU banks at par with private banks, and thus improve the operating performance.
- BoB is building new capabilities to drive growth. Days of plain vanilla MSME financing are over. For instance, BoB is trying to develop the LCV segment, besides aggressively focusing on the personal loan segment.
- Banks in south India are seeing higher growth in gold loans. Canara Bank's merger with South-focused Syndicate Bank has given it an edge in gold loans. BoB has a slightly lower market share in south India.

Valuation and view

BoB is well capitalized to capture incremental growth opportunities, mainly led by retail loans. Meanwhile, the corporate book has been witnessing a healthy recovery, resulting in a gradual pickup in loan growth. Healthy NII growth and a pickup in other income should boost earnings, while margins should remain buoyant after a strong expansion to 3.4% in 3QFY23. The CASA mix has moderated after higher growth in term deposits (mainly bulk deposits). Asset quality continues to improve with NNPA at less than 1%. A lower SMA book and controlled restructuring provide further comfort on asset quality. **We estimate FY25 RoA/RoE of 1.1%/15.3% and value the stock at INR240 (1.1x Sep'24E ABV). We have a Buy rating on the stock.**

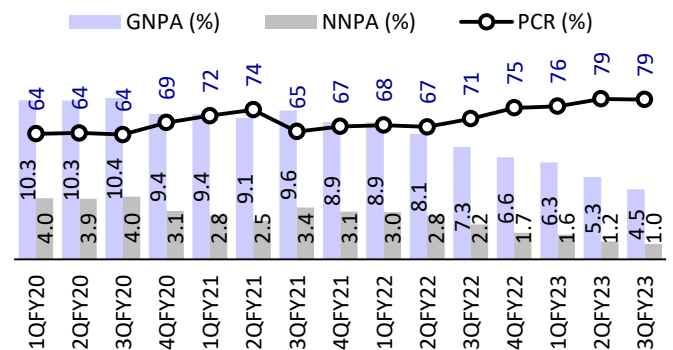
Story in charts

Exhibit 1: Slippages moderated to INR29b during 3QFY23



*Including pro forma slippages in 3QFY21 Source: MOFSL, Company

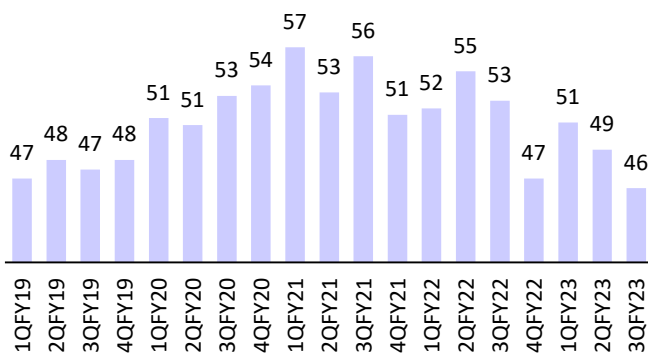
Exhibit 2: Asset quality continues to improve; calculated PCR stable at ~79%



*Pro forma as of 3QFY21

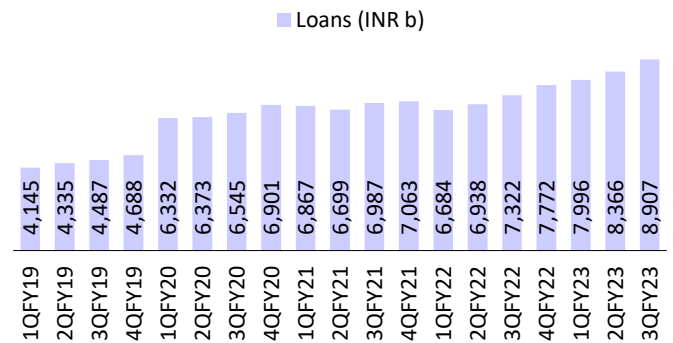
Source: MOFSL, Company

Exhibit 3: Cost-to-core income moderated to ~46%



Source: MOFSL, Company

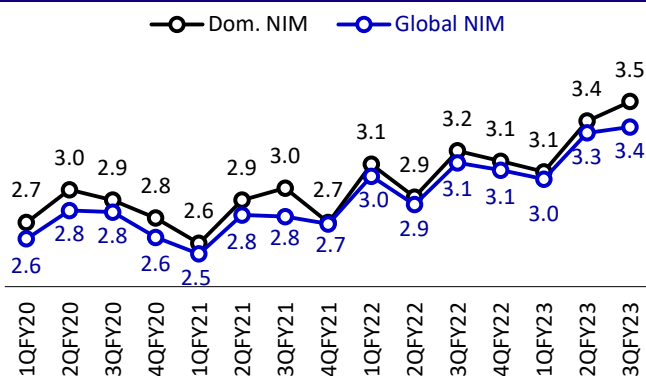
Exhibit 4: Loan book grew ~22% YoY (+6.5% QoQ)



*FY19 is for standalone entity

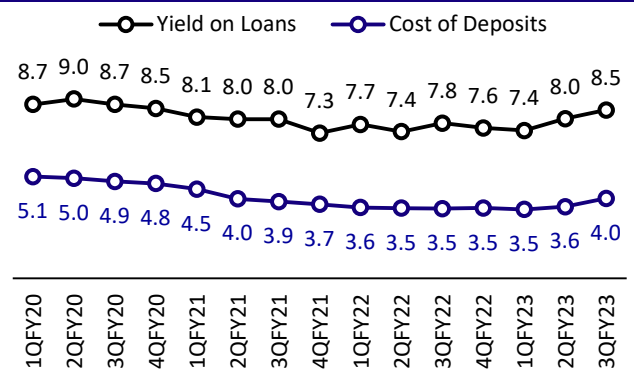
Source: MOFSL, Company

Exhibit 5: Domestic/Global NIMs expanded 4bp/13bp QoQ



Source: MOFSL, Company

Exhibit 6: Loan yield expanded 44bp QoQ to 8.45%; CoD increased to 4.01% (+42bp QoQ)



Source: MOFSL, Company

Financials and valuations

Income Statement						(INR b)		
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
Interest Income	436.5	497.7	759.8	705.0	698.8	880.7	1,046.5	1,181.2
Interest Expense	281.3	312.9	485.3	416.9	372.6	466.3	581.5	664.8
Net Interest Income	155.2	184.8	274.5	288.1	326.2	414.5	465.0	516.4
Growth (%)	14.9	19.1	48.5	4.9	13.2	27.1	12.2	11.1
Non-Interest Income	66.6	62.9	103.2	129.3	114.8	95.3	109.6	123.9
Total Income	221.8	247.7	377.7	417.4	441.1	509.8	574.6	640.3
Growth (%)	9.4	11.7	52.4	10.5	5.7	15.6	12.7	11.4
Operating Expenses	101.7	112.9	188.7	205.4	217.2	239.2	267.4	291.9
Pre Provision Profits	120.1	134.9	189.0	212.0	223.9	270.5	307.2	348.4
Growth (%)	9.4	12.3	40.1	12.2	5.6	20.8	13.6	13.4
Core PPP	101.3	125.0	161.5	178.2	196.6	247.3	287.5	331.6
Growth (%)	21.2	23.4	29.2	10.4	10.3	25.8	16.2	15.3
Provisions (excl. tax)	148.0	127.9	207.0	156.4	130.0	81.5	92.2	99.5
PBT	-27.9	7.0	-18.0	55.6	93.9	189.0	215.0	248.9
Tax	-3.6	2.6	-23.5	47.3	21.1	51.4	53.7	62.2
Tax Rate (%)	12.9	37.9	130.3	85.1	22.5	27.2	25.0	25.0
PAT	-24.3	4.3	5.5	8.3	72.7	137.6	161.2	186.7
Growth (%)	NM	NM	26.0	51.8	NM	89.2	17.2	15.8

Balance Sheet

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
Equity Share Capital	5.3	5.3	9.3	10.4	10.4	10.4	10.4	10.4
Reserves & Surplus	428.6	504.5	709.3	760.1	848.7	976.7	1,126.0	1,298.2
Net Worth	433.9	509.8	718.6	770.5	859.1	987.1	1,136.3	1,308.6
Deposits	5,913.1	6,386.9	9,459.8	9,670.0	10,459.4	11,766.8	13,002.3	14,562.6
Growth (%)	-1.7	8.0	48.1	2.2	8.2	12.5	10.5	12.0
of which CASA Deposits	2,117.8	2,237.9	3,338.2	3,882.8	4,336.1	4,824.4	5,200.9	5,781.4
Growth (%)	9.4	5.7	49.2	16.3	11.7	11.3	7.8	11.2
Borrowings	625.7	672.0	930.7	668.5	1,039.0	1,039.3	1,136.6	1,262.1
Other Liabilities & Prov.	227.2	241.1	470.1	444.7	422.5	464.8	511.3	562.4
Total Liabilities	7,200.0	7,809.9	11,579.2	11,553.6	12,780.0	14,258.0	15,786.5	17,695.7
Current Assets	929.0	892.3	1,219.0	1,204.1	1,226.5	986.1	1,201.8	1,266.0
Investments	1,631.8	1,823.0	2,746.1	2,612.2	3,158.0	3,536.9	4,014.4	4,496.1
Growth (%)	25.9	11.7	50.6	-4.9	20.9	12.0	13.5	12.0
Loans	4,274.3	4,688.2	6,901.2	7,063.0	7,771.6	9,123.8	10,401.1	11,753.3
Growth (%)	11.5	9.7	47.2	2.3	10.0	17.4	14.0	13.0
Fixed Assets	53.7	69.9	88.9	80.2	99.2	96.2	102.0	107.1
Other Assets	311.2	336.5	623.9	594.1	524.7	515.0	67.2	73.2
Total Assets	7,200.0	7,809.9	11,579.2	11,553.6	12,780.0	14,258.0	15,786.5	17,695.7

Asset Quality

GNPA	564.8	482.3	693.8	666.7	540.6	406.1	386.9	385.1
NNPA	234.8	156.1	215.8	218.0	133.6	85.1	81.1	77.8
GNPA Ratio	12.3	9.6	9.4	8.9	6.6	4.3	3.6	3.2
NNPA Ratio	5.5	3.3	3.1	3.1	1.7	0.9	0.8	0.7
Slippage Ratio	6.0	3.0	3.4	2.8	1.8	1.8	1.8	1.8
Credit Cost	3.5	2.7	2.9	1.7	2.0	0.9	0.9	0.9
PCR (Excl. Tech. write off)	58.4	67.6	68.9	67.3	75.3	79.0	79.0	79.8

Financials and valuations

Ratios

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
Yield and Cost Ratios (%)								
Avg. Yield-Earning Assets	6.5	7.0	7.0	6.5	5.7	6.8	7.2	7.1
Avg. Yield on loans	7.2	7.7	7.8	7.1	6.3	7.5	7.8	7.7
Avg. Yield on Investments	7.3	7.5	6.6	6.6	5.6	6.6	6.9	7.2
Avg. Cost-Int. Bear. Liab.	4.4	4.6	4.7	4.0	3.2	3.8	4.3	4.4
Avg. Cost of Deposits	4.4	4.5	4.6	3.9	3.2	3.8	4.3	4.4
Interest Spread	2.1	2.4	2.3	2.4	2.5	3.0	2.8	2.7
Net Interest Margin	2.3	2.6	2.5	2.7	2.7	3.2	3.2	3.1

Capitalisation Ratios (%)

CAR	12.9	13.4	13.9	15.7	16.3	15.1	14.5	14.1
Tier I	11.3	11.6	11.3	13.5	13.9	13.0	12.5	12.3
Tier II	1.6	1.9	2.6	2.3	2.4	2.2	2.0	1.8

Business and Efficiency Ratios (%)

Loans/Deposit Ratio	72.3	73.4	73.0	73.0	74.3	77.5	80.0	80.7
CASA Ratio	35.8	35.0	35.3	40.2	41.5	41.0	40.0	39.7
Cost/Assets	1.4	1.4	1.6	1.8	1.7	1.7	1.7	1.6
Cost/Total Income	45.9	45.6	50.0	49.2	49.2	46.9	46.5	45.6
Cost/Core Income	50.1	47.5	53.9	53.5	52.5	49.2	48.2	46.8
Int. Expense/Int. Income	64.4	62.9	63.9	59.1	53.3	52.9	55.6	56.3
Fee Income/Total Income	21.5	21.4	20.0	22.9	19.9	14.1	15.6	16.7
Non Int. Inc./Total Income	30.0	25.4	27.3	31.0	26.0	18.7	19.1	19.3
Emp. Cost/Total Expense	45.3	44.6	50.7	55.7	55.2	55.6	56.2	56.6
Investment/Deposit Ratio	27.6	28.5	29.0	27.0	30.2	30.1	30.9	30.9

Profitability Ratios and Valuation

RoE	-5.8	0.9	0.8	1.1	8.5	14.9	15.2	15.3
RoA	-0.3	0.1	0.0	0.1	0.6	1.0	1.1	1.1
RoRWA	-0.6	0.1	0.1	0.1	1.1	1.9	2.0	2.0
Book Value (INR)	157	183	148	143	158	183	212	245
Growth (%)	-5.3	16.4	-19.0	-3.2	10.5	15.6	15.7	15.7
Price-BV (x)	1.1	0.9	1.2	1.2	1.1	0.9	0.8	0.7
Adjusted BV (INR)	91	136	112	111	136	167	195	228
Price-ABV (x)	1.9	1.3	1.5	1.6	1.3	1.0	0.9	0.8
EPS (INR)	-9.8	1.6	1.2	1.6	14.0	26.6	31.1	36.1
Growth (%)	NM	NM	-27.8	35.6	NM	89.2	17.2	15.8
Price-Earnings (x)	NM	NM	NM	NM	12.3	6.5	5.6	4.8

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 the distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at

<http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

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

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

Regional Disclosures (outside India)

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

For Hong Kong:

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

For U.S.

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

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

For Singapore

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

Specific Disclosures

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

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company 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 alterations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085.

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