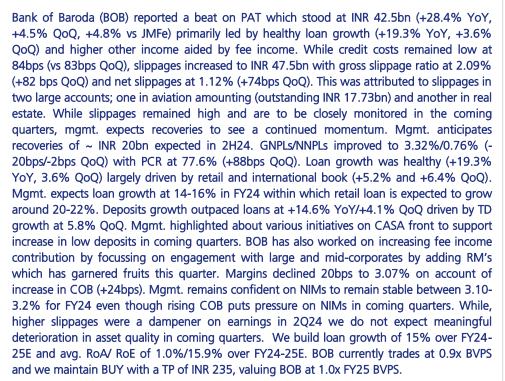
Bank of Baroda | BUY

Higher slippages overshadow earnings beat



- Healthy loan growth; margins decline 20bps QoQ: BOB reported a healthy loan growth of +3.6% QoQ, +19.3% YoY aided by robust growth in retail and international book (+5.2% and +6.4% QoQ). Within retail loans, growth was led by higher growth in personal loans (+16.2% QoQ), non-agri gold (+14.6% QoQ), education loan (+7.8% QoQ) and auto loan growth (+6.5% QoQ). Mgmt. expects retail to drive credit growth with some moderation expected in personal loans. Mgmt. maintains its estimates for loan growth at 14-16% led by retail loans with it expected to grow at 20-22%. Mgmt. remains confident of BoB's overall loan growth to be 1-2% higher than industry; we build loan growth of 15% over FY24-25E. Deposits growth outpaced loans at +14.6% YoY/+4.1% QoQ with domestic CASA at 39.9% (-45bps QoQ). Operating profit stood at INR 80.1bn (+2.5% YoY, +33% QoQ, +5.4% JMFe) driven by healthy loan growth, NIMs at 3.07% (-20bps QoQ), robust other income and higher opex at INR 69.8bn (+7.5% QoQ).
- Elevated slippages due to two large accounts: Slippages increased to INR 47.5bn with gross slippage ratio at 2.09% (+82 bps QoQ) and net slippages at 1.12% (+74bps QoQ). This was attributed to slippages in two large accounts; one in aviation amounting (outstanding INR 17.73bn) and another in real estate. BOB executed an ARC sale

JM	FINANCIAL

Sameer Bhise sameer.bhise@jmfl.com | Tel: (91 22) 66303489

Apurva Deshmukh

apurva.deshmukh@jmfl.com | Tel: (91 22) 66303263

Mayank Mistry

mayank.mistry@jmfl.com | Tel: (91 22) 62241877

Gayathri Shivaram

gayathri.shivaram@jmfl.com | Tel: (91 22) 66301889

Shreyas Pimple

shreyas.pimple@jmfl.com | Tel: (91 22) 66301881

Recommendation and Price Target	
Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	235
Upside/(Downside)	15.3%
Previous Price Target	235
Change	0.0%

Key Data – BOB IN	
Current Market Price	INR204
Market cap (bn)	INR1,034.3/US\$12.4
Free Float	32%
Shares in issue (mn)	5,177.7
Diluted share (mn)	
3-mon avg daily val (mn)	INR3,981.7/US\$47.8
52-week range	220/147
Sensex/Nifty	64,364/19,231
INR/US\$	83.3

Price Performance			
%	1M	6M	12M
Absolute	-5.9	9.1	38.4
Relative*	-3.5	3.4	31.0

* To the BSE Sensex

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Profit	8,290	72,723	141,096	160,591	174,950
Net Profit (YoY) (%)	51.8%	777.3%	94.0%	13.8%	8.9%
Assets (YoY) (%)	-0.1%	10.5%	14.3%	14.3%	14.6%
ROA (%)	0.1%	0.6%	1.0%	1.0%	1.0%
ROE (%)	1.2%	9.7%	16.5%	16.3%	15.5%
EPS	1.6	14.0	27.3	31.0	33.8
EPS (YoY) (%)	35.6%	777.3%	94.0%	13.8%	8.9%
PE (x)	124.9	14.2	7.3	6.4	5.9
BV	139	152	178	203	234
BV (YoY) (%)	-2.4%	9.7%	17.2%	13.9%	15.0%
P/BV (x)	1.44	1.31	1.12	0.98	0.86

JM Financial Research is also available on: Bloomberg - JMFR <GO>, Thomson Publisher & Reuters, S&P Capital IQ, FactSet and Visible Alpha

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Source: Company data, JM Financial. Note: Valuations as of 04/Nov/2023

amounting to INR 1.59bn (against an outstanding book of INR 4.15bn). Despite credit cost were lower at 84bps (vs 83bps QoQ). Additionally BOB also made additional provisions of INR 8.12bn against stressed standard. Mgmt. anticipates continued momentum in recoveries of ~INR 20bn expected in 2H24. GNPLs/NNPLs improved to 3.32%/0.76% (-20bps/-2bps QoQ) with PCR at 77.6% (+88bps QoQ). We build in avg. credit costs of 1% over FY24-25E.

Valuation and view: We maintain our earnings estimate driven by continued loan growth momentum, healthy operational performance and low credit costs. While, higher slippages were a dampener on earnings in 2Q24 we do not expect meaningful deterioration in asset quality in coming quarters. We build loan growth of 15% over FY24-25E and avg. RoA/RoE of 1.0%/15.9% over FY24-25E. BOB currently trades at 0.9x BVPS and we maintain BUY with a TP of INR 235, valuing BOB at 1.0x FY25 BVPS.

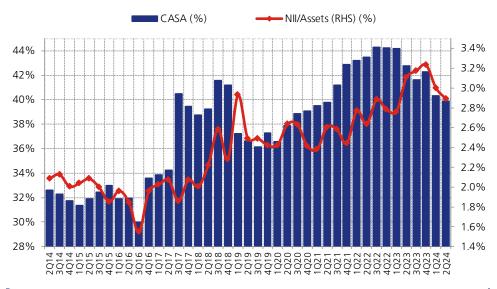
BOB – 2QFY24 trends

Exhibit 1. BOB 2QFY24 : Result Earnings Table (Rs mn)	2Q'23	1Q'24	2Q'24	YoY (%)	QoQ-2 (%)
NII	1,01,745	1,09,967	1,08,307	6.4	-1.5
Trading Profits	-2,390	9,560	4,780	-300.0	-50.0
FX Revenues	1,680	, 5,230	6,470	285.1	23.7
Recoveries	6,030	6,630	12,310	104.1	85.7
Fee & Other Income	12,938	11,803	18,152	40.3	53.8
Non-Interest income	18,258	33,223	41,712	128.5	25.6
Total Income	1,20,003	1,43,189	1,50,019	25.0	4.8
Employee Cost	31,834	37,544	37,064	16.4	-1.3
Other Operating Expenses	27,859	27,402	32,758	17.6	19.5
Total Operating Expenses	59,693	64,946	69,821	17.0	7.5
Operating Profit	60,310	78,243	80,197	33.0	2.5
Loan Loss Provisions	16,540	16,930	22,850	38.1	35.0
Standard Asset Provisions	1,040	1,440	-3,600	-446.2	-350.0
Provisions on Investments	-1,260	-110	920	-173.0	-936.4
Other Provisions	-45	1,208	1,436	-3262.3	18.9
Total Provisions	16,275	19,468	21,606	32.8	11.0
PBT	44,035	58,775	58,592	33.1	-0.3
Tax	10,901	18,075	16,063	47.4	-11.1
Reported Profit	33,134	40,701	42,529	28.4	4.5
Balance sheet (Rs. bn.)					
Deposits	10,902	11,999	12,496	14.6	4.1
Net Advances	8,366	9,635	9,980	19.3	3.6
Total Assets	13,364	14,734	15,235	14.0	3.4
Low-cost Deposits (%)	42.8	40.3	39.9	-2.9	-0.5
Loan-Deposit ratio (%)	76.7	80.3	79.9	3.1	-0.4
Key Ratios	2Q'23	1Q'24	2Q'24	YoY (%)	QoQ (%)
Credit Quality	20 23	1927	20 27	101 (70)	Q0Q (70)
Gross NPAs (Rs. mn.)	463.7	348.3	339.7	-26.8	-2.5
Net NPAs (Rs. mn.)	96.7	74.8	76.0	-21.5	1.5
Gross NPA (%)	5.31	3.52	3.32	-2.0	-0.2
Net NPA (%)	1.16	0.78	0.76	-0.4	0.0
Loan Loss Provisions (%)	0.92	0.83	0.84	-0.08	0.01
Coverage Ratio (%)	79.1	78.5	77.6	-1.5	-0.9
Cost / Income ratio (%)	49.7	45.4	46.5	-3.2	1.2
Capital Adequacy					
CET 1 (%)	11.0	11.9	11.6	0.6	-0.4
Tier I (%)	12.8	13.6	13.2	0.4	-0.5
CAR (%)	15.3	15.8	15.3	0.0	-0.5
Du-pont Analysis					
NII / Assets (%)	3.1	3.0	2.9	-0.2	-0.1
Non-Interest Inc. / Assets (%)	0.6	0.9	1.1	0.6	0.2
Operating Cost / Assets (9/)	1.8	1.8	1.9	0.0	0.1
Operating Cost / Assets (%)			2.4	0.3	0.0
Operating Cost / Assets (%) Operating Profits / Assets (%)	1.8	2.1	2.1	0.3	0.0
· -	1.8 0.5	2.1 0.5	0.6	0.3	0.0

Exhibit 2. BOB 2QFY24: Deposits mix								
Deposits Composition (INR bn)	2Q'23	1Q'24	2Q'24	YoY (%)	QoQ (%)			
Saving Deposits - Domestic	3,453	3,606	3639	5.4	0.9			
Current Deposits - Domestic	649	630	644	-0.7	2.3			
CASA Deposits - Domestic	4,102	4,236	4,283	4.4	1.1			
Time Deposits - Domestic	5,488	6,267	6,458	17.7	3.0			
Total Domestic Deposits	9,590	10,503	10,741	12.0	2.3			
Total Deposits	10,902	11,999	12,496	14.6	4.1			
Mix (%)								
Saving Deposits - Domestic	36.0	34.3	33.9	(2.1)	(0.5)			
Current Deposits - Domestic	6.8	6.0	6.0	(0.8)	-			
CASA (% domestic)	42.8	40.3	39.9	(2.9)	(0.5)			
Time Deposits - Domestic	57.2	59.7	60.1	2.9	0.5			
Domestic Deposits (% of total)	88.0	87.5	86.0	(2.0)	(1.6)			
Overseas Deposits (% of total)	12.0	12.5	14.0	2.0	1.6			

Source: Company, JM Financial

Exhibit 3. BOB 2QFY24: Trends in CASA and NII (%)

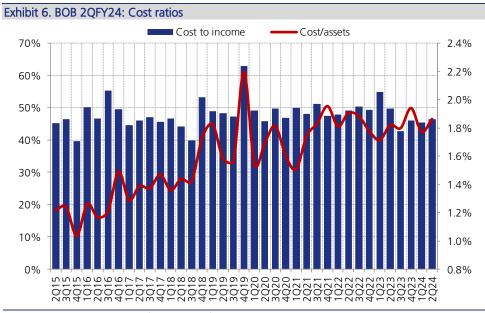


Source: Company, JM Financial; numbers from 1QFY19 are for the merged entity (merged with Dena + Vijaya)

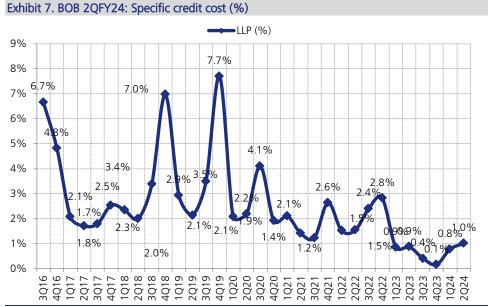
Exhibit 4. BOB 2QFY24: Loan mix					
Loan Book Composition (INR bn)	2Q'23	1Q'24	2Q'24	YoY (%)	QoQ (%)
Retail credit	1,585	1,841	1,937	22.2	5.2
SME credit	1,013	1,092	1,135	12.1	3.9
Agriculture credit	1,150	1,276	1,307	13.7	2.4
Wholesale credit & Others	3,420	3,917	3,968	16.0	1.3
Domestic Advances	7,167	8,126	8,347	16.5	2.7
Overseas Advances	1,568	1,784	1,898	21.1	6.4
Total Advances	8,735	9,910	10,245	17.3	3.4
Mix (%)					
Retail credit	22.1	22.7	23.2	1.1	0.5
SME credit	14.1	13.4	13.6	-0.5	0.2
Agriculture credit	16.0	15.7	15.7	-0.4	0.0
Wholesale credit	47.7	48.2	47.5	-0.2	-0.7
Total Domestic Advances	100.0	100.0	100.0		
Domestic Advances	82.1	82.0	81.5	-0.6	-0.5
Overseas Advances	17.9	18.0	18.5	0.6	0.5

Exhibit 5. BOB 2QFY24: Fee income split								
Fee Income Composition (INR mn)	2Q'23	1Q'24	2Q'24	YoY (%)	QoQ (%)			
Fees and commissions	11,510	11,800	8,920	-22.5%	-24.4%			
Forex and derivatives	1,680	5,230	6,470	285.1%	23.7%			
Trading gains/losses	-2,390	9,560	4,780	-300.0%	-50.0%			
Miscellaneous income	6,038	6,633	19,352	220.5%	191.8%			
Total	16,838	33,223	39,522	134.7%	19.0%			
Fee Income Mix (%)								
Fees and commissions	68.4	35.5	22.6	(45.8)	(12.9)			
Forex and derivatives	10.0	15.7	16.4	6.4	0.6			
Trading gains/losses	-14.2	28.8	12.1	26.3	(16.7)			
Miscellaneous income	35.9	20.0	49.0	13.1	29.0			
Total	100.0	100.0	100.0	-	-			

Source: Company, JM Financial

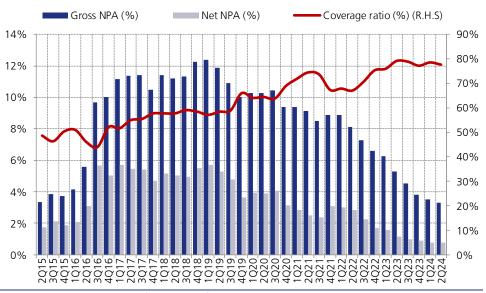


Source: Company, JM Financial; numbers from 1QFY19 are for the merged entity (merged with Dena + Vijaya)



Source: Company, JM Financial; numbers from 1QFY19 are for the merged entity (merged with Dena + Vijaya)

Exhibit 8. BOB 2QFY24: Asset quality indicators



Source: Company, JM Financial; numbers from 1QFY19 are for the merged entity (merged with Dena + Vijaya)

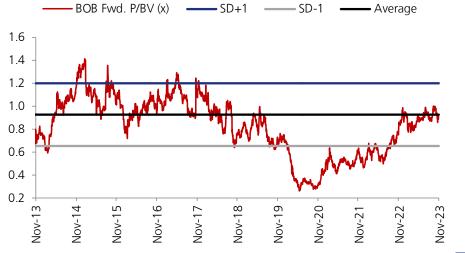
Valuation and 12M TP

We value the Bank of Baroda using two-stage Gordon growth model. Our calculations are as follows:

Exhibit 9. BOB: Valuation summary	
Initial no of years	10
Growth rate for the first 10 years (%)	13%
Pay out ratio for the first 10 years (%)	10%
Perpetual growth rate (%)	6%
Perpetual payout ratio (%)	60%
K1	0.93
K2	6.47
Fully adjusted FY25E BVPS (Rs)	227
Target P/BV (x)	1.03x
Fair value (rounded off)	235

Source: Company, JM Financial

Exhibit 10. BOB: One-year forward P/BV (x)



Financial Tables (Standalone)

Profit & Loss					(INR bn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Interest Income	288	326	414	484	557
Profit on Investments	39	18	1	5	3
Exchange Income	10	12	6	8	9
Fee & Other Income	79	86	93	86	96
Non-Interest Income	129	115	100	99	108
Total Income	417	441	514	583	664
Operating Expenses	205	217	245	270	306
Pre-provisioning Profits	212	224	269	313	358
Loan-Loss Provisions	143	121	50	96	122
Provisions on Investments	9	6	17	1	1
Others Provisions	5	3	5	1	1
Total Provisions	156	130	71	97	123
PBT	56	94	197	216	235
Tax	47	21	56	55	60
PAT (Pre-Extraordinaries)	8	73	141	161	175
Extra ordinaries (Net of Tax)	0	0	0	0	0
Reported Profits	8	73	141	161	175
Dividend paid	0	15	28	32	17
Retained Profits	8	58	113	128	157

Balance Sheet					(INR bn)
Y/E March	FY21	FY22	FY23	FY24E	FY25E
Equity Capital	10	10	10	10	10
Reserves & Surplus	708	778	913	1,042	1,199
Deposits	9,670	10,459	12,037	13,842	15,919
Borrowings	668	1,039	1,019	997	976
Other Liabilities	445	423	547	709	919
Total Liabilities	11,502	12,709	14,527	16,601	19,023
Investments	2,612	3,158	3,625	3,724	4,261
Net Advances	7,063	7,772	9,410	10,821	12,391
Cash & Equivalents	1,204	1,227	957	1,952	2,191
Fixed Assets	28	28	28	31	33
Other Assets	594	525	507	73	147
Total Assets	11,502	12,709	14,527	16,601	19,023

Source: Company, JM Financial

Source: Co	npany, JM	Finar	ıcial
------------	-----------	-------	-------

Key Ratios					
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Growth (YoY) (%)					
Deposits	2.2	8.2	15.1	15.0	15.0
Advances	2.3	10.0	21.1	15.0	14.5
Total Assets	-0.1	10.5	14.3	14.3	14.6
NII	4.9	13.2	26.8	17.1	15.0
Non-Interest Income	25.4	-11.2	-12.7	-1.7	9.4
Operating Expenses	8.9	5.7	12.9	10.1	13.6
Operating Profits	12.2	5.6	20.0	16.4	14.4
Core Operating Profits	6.9	19.5	30.0	14.9	15.3
Provisions	-24.4	-16.9	-45.1	36.3	26.7
Reported PAT	51.8	777.3	94.0	13.8	8.9
Yields / Margins (%)					
Interest Spread (%)	2.5	2.7	2.9	2.8	2.7
NIM (%)	2.6	2.8	3.2	3.2	3.2
Profitability (%)					
Non-IR to Income (%)	31.0	26.0	19.5	16.9	16.2
Cost to Income (%)	49.2	49.2	47.7	46.3	46.1
ROA (%)	0.1	0.6	1.0	1.0	1.0
ROE (%)	1.2	9.7	16.5	16.3	15.5
Assets Quality (%)	0.0	0.0	0.0	0.0	0.0
Slippages (%)	3.0	2.1	1.5	1.9	1.9
Gross NPAs (%)	8.9	6.6	3.8	3.4	3.2
Net NPAs (%)	3.1	1.7	0.9	0.9	8.0
Provision Coverage (%)	67.3	75.3	77.2	75.0	77.0
Specific LLP (%)	1.7	2.0	0.5	0.8	0.9
Net NPAs / Networth (%)	30.3	17.0	9.1	9.1	7.7
Capital Adequacy (%)					
CET1 (%)	11.2	12.1	12.9	12.7	0.0
Tier I (%)	12.7	13.2	14.0	13.6	13.4
CAR (%)	15.0	15.7	16.2	15.5	15.0

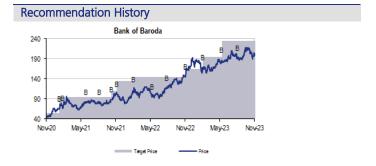
Dupont Analysis					
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
NII / Assets	2.5	2.7	3.0	3.1	3.1
Other Income / Assets	1.1	0.9	0.7	0.6	0.6
Total Income / Assets	3.6	3.6	3.8	3.7	3.7
Cost / Assets	1.8	1.8	1.8	1.7	1.7
PBP / Assets	1.8	1.8	2.0	2.0	2.0
Provisions / Assets	1.4	1.1	0.5	0.6	0.7
PBT / Assets	0.5	0.8	1.4	1.4	1.3
Tax rate	85.1	22.5	28.5	25.5	25.5
ROA	0.1	0.6	1.0	1.0	1.0
RoRWAs	0.1	1.2	2.1	2.1	2.0
Leverage	16.7	16.1	15.9	15.8	15.8
ROE	1.2	9.7	16.5	16.3	15.5

Source: Company, JM Financial

Valuations					
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Shares in Issue	5.2	5.2	5.2	5.2	5.2
EPS (INR)	1.6	14.0	27.3	31.0	33.8
EPS (YoY) (%)	35.6%	777.3%	94.0%	13.8%	8.9%
PER (x)	124.9	14.2	7.3	6.4	5.9
BV (INR)	139	152	178	203	234
BV (YoY) (%)	-2.4%	9.7%	17.2%	13.9%	15.0%
ABV (INR)	135	153	167	195	227
ABV (YoY) (%)	-1.7%	12.7%	9.5%	16.8%	16.4%
P/BV (x)	1.44	1.31	1.12	0.98	0.86
P/ABV (x)	1.48	1.31	1.20	1.02	0.88
DPS (INR)	0.0	2.8	5.5	6.2	3.4
Div. yield (%)	0.0%	1.4%	2.7%	3.1%	1.7%

Source: Company, JM Financial

listory of Recommendation and Target Price			
Date	Recommendation	Target Price	% Chg.
9-Jan-20	Hold	100	
27-Jan-20	Hold	95	-5.0
11-Mar-20	Hold	85	-10.5
13-Apr-20	Hold	50	-41.2
24-Jun-20	Hold	55	10.0
11-Aug-20	Hold	55	0.0
29-Oct-20	Hold	55	0.0
11-Jan-21	Buy	95	72.7
28-Jan-21	Buy	95	0.0
31-May-21	Buy	95	0.0
9-Aug-21	Buy	95	0.0
11-Oct-21	Buy	110	15.8
10-Nov-21	Buy	135	22.7
7-Feb-22	Buy	145	7.4
15-May-22	Buy	145	0.0
1-Aug-22	Buy	145	0.0
6-Nov-22	Buy	165	13.8
6-Feb-23	Buy	195	18.2
16-May-23	Buy	235	20.5
6-Aug-23	Buy	235	0.0



APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

Member of BSE Ltd. and National Stock Exchange of India Ltd.

SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst - INH000000610

Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.

Board: +91 22 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.com Compliance Officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1073 | Email: sahil.salastekar@jmfl.com Grievance officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1073 | Email: instcompliance@jmfl.com

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

Definition of	Definition of ratings				
Rating	Meaning				
Buy	Total expected returns of more than 10% for stocks with market capitalisation in excess of INR 200 billion and REITs* and more than 15% for all other stocks, over the next twelve months. Total expected return includes dividend yields.				
Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs* and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.				
Sell	Price expected to move downwards by more than 10% from the current market price over the next twelve months.				

^{*} REITs refers to Real Estate Investment Trusts.

Research Analyst(s) Certification

The Research Analyst(s), with respect to each issuer and its securities covered by them in this research report, certify that:

All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and

No part of his or her or their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research
report.

Important Disclosures

This research report has been prepared by JM Financial Institutional Securities Limited (JM Financial Institutional Securities) to provide information about the company(ies) and sector(s), if any, covered in the report and may be distributed by it and/or its associates solely for the purpose of information of the select recipient of this report. This report and/or any part thereof, may not be duplicated in any form and/or reproduced or redistributed without the prior written consent of JM Financial Institutional Securities. This report has been prepared independent of the companies covered herein.

JM Financial Institutional Securities is registered with the Securities and Exchange Board of India (SEBI) as a Research Analyst and a Stock Broker having trading memberships of the BSE Ltd. (BSE) and National Stock Exchange of India Ltd. (NSE). No material disciplinary action has been taken by SEBI against JM Financial Institutional Securities in the past two financial years which may impact the investment decision making of the investor. Registration granted by SEBI and certification from the National Institute of Securities Market (NISM) in no way guarantee performance of JM Financial Institutional Securities or provide any assurance of returns to investors.

JM Financial Institutional Securities renders stock broking services primarily to institutional investors and provides the research services to its institutional clients/investors. JM Financial Institutional Securities and its associates are part of a multi-service, integrated investment banking, investment management, brokerage and financing group. JM Financial Institutional Securities and/or its associates might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, broking, financing or any other advisory services to the company(ies) covered herein. JM Financial Institutional Securities and/or its associates might have received during the past twelve months or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services.

JM Financial Institutional Securities and/or its associates, their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (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) covered under this report or (c) act as an advisor or lender/borrower to, or may have any financial interest in, such company(ies) or (d) considering the nature of business/activities that JM Financial Institutional Securities is engaged in, it may have potential conflict of interest at the time of publication of this report on the subject company(ies).

Neither JM Financial Institutional Securities nor its associates or the Research Analyst(s) named in this report or his/her relatives individually own one per cent or more securities of the company(ies) covered under this report, at the relevant date as specified in the SEBI (Research Analysts) Regulations, 2014.

The Research Analyst(s) principally responsible for the preparation of this research report and their immediate relatives are prohibited from buying or selling debt or equity securities, including but not limited to any option, right, warrant, future, long or short position issued by company(ies) covered under this report. The Research Analyst(s) principally responsible for the preparation of this research report or their immediate relatives (as defined under SEBI (Research Analysts) Regulations, 2014); (a) do not have any financial interest in the company(ies) covered under this report or (b) did not receive any compensation from the company(ies) covered under this report, or from any third party, in connection with this report or (c) do not have any other material conflict of interest at the time of publication of this report. Research Analyst(s) are not serving as an officer, director or employee of the company(ies) covered under this report.

While reasonable care has been taken in the preparation of this report, it does not purport to be a complete description of the securities, markets or developments referred to herein, and JM Financial Institutional Securities does not warrant its accuracy or completeness. JM Financial Institutional Securities may not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This report is provided for information only and is not an investment advice and must not alone be taken as the basis for an investment decision.

This research report is based on the fundamental research/analysis conducted by the Research Analyst(s) named herein. Accordingly, this report has been prepared by studying/focusing on the fundamentals of the company(ies) covered in this report and other macro-economic factors. JM Financial Institutional Securities may have also issued or may issue, research reports and/or recommendations based on the technical/quantitative analysis of the company(ies) covered in this report by studying and using charts of the stock's price movement, trading volume and/or other volatility parameters. As a result, the views/recommendations expressed in such technical research reports could be inconsistent or even contrary to the views contained in this report.

The investment discussed or views expressed or recommendations/opinions given herein may not be suitable for all investors. The user assumes the entire risk of any use made of this information. The information contained herein may be changed without notice and JM Financial Institutional Securities reserves the right to make modifications and alterations to this statement as they may deem fit from time to time.

This report is neither an offer nor solicitation of an offer to buy and/or sell any securities mentioned herein and/or not an official confirmation of any transaction.

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 JM Financial Institutional Securities and/or its affiliated company(ies) 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 a certain category of investors. Persons in whose possession this report may come, are required to inform themselves of and to observe such restrictions.

Additional disclosure only for U.S. persons: JM Financial Institutional Securities has entered into an agreement with JM Financial Securities, Inc. ("JM Financial Securities"), a U.S. registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") in order to conduct certain business in the United States in reliance on the exemption from U.S. broker-dealer registration provided by Rule 15a-6, promulgated under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and as interpreted by the staff of the U.S. Securities and Exchange Commission ("SEC") (together "Rule 15a-6").

This research report is distributed in the United States by JM Financial Securities in compliance with Rule 15a-6, and as a "third party research report" for purposes of FINRA Rule 2241. In compliance with Rule 15a-6(a)(3) this research report is distributed only to "major U.S. institutional investors" as defined in Rule 15a-6 and is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research report and are not a major U.S. institutional investor, you are instructed not to read, rely on, or reproduce the contents hereof, and to destroy this research or return it to JM Financial Institutional Securities or to JM Financial Securities.

This research report is a product of JM Financial Institutional Securities, which is the employer of the research analyst(s) solely responsible for its content. The research analyst(s) preparing this research report is/are resident outside the United States and are not associated persons or employees of any U.S. registered broker-dealer. Therefore, the analyst(s) are not subject to supervision by a U.S. broker-dealer, or otherwise required to satisfy the regulatory licensing requirements of FINRA and may not be subject to the Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Any U.S. person who is recipient of this report that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, must contact, and deal directly through a U.S. registered representative affiliated with a broker-dealer registered with the SEC and a member of FINRA. In the U.S., JM Financial Institutional Securities has an affiliate, JM Financial Securities, Inc. located at 1325 Avenue of the Americas, 28th Floor, Office No. 2821, New York, New York 10019. Telephone +1 (332) 900 4958 which is registered with the SEC and is a member of FINRA and SIPC.

Additional disclosure only for U.K. persons: Neither JM Financial Institutional Securities nor any of its affiliates is authorised in the United Kingdom (U.K.) by the Financial Conduct Authority. As a result, this report is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the matters to which this report relates may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This report is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons.

Additional disclosure only for Canadian persons: This report is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This report is not, and under no circumstances is it to be construed as, a prospectus or an offering memorandum. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this report has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that JM Financial Securities, Inc., JM Financial Institutional Securities Limited, their affiliates and authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential lo