# PNB Housing Finance | BUY

### 3QFY24 - Soft quarter

In 3QFY24, PNB Housing Finance (PNBHF) missed our expectations as lower than expected NII (INR 5.9bn, -17% YoY, -8% QoQ, -10% JMFe) and elevated opex (INR 1.7bn, flat QoQ) resulted in less than anticipated PPOP (-20% YoY, -2% QoQ, -10% JMFe) and PAT (INR 3.4bn, +26% YoY, -12%QoQ, -11% JMFe). Lower adj. yields (-19bps QoQ) and stagnant adi, cost of borrowings (-1bp QoQ) resulted in seguential NIM contraction (3.65%, -19 bps QoQ). Elevated competition and recent RBI circular potentially mandating HFCs to keep higher liquidity buffer on deposits might result in continued pressure on margin in the near term. However, expansion of product suite in higher yielding affordable segment and incremental growth in emerging geographies (beyond prime) will provide levers to manage NIM aided by latest rating upgrade. Moderate growth in overall loan assets (INR 623bn, +7.4% YoY, +2.4% QoQ) was led by retail loans (INR 601bn, +13.2% YoY, +2.8% QoQ) while corporate book (INR 22.1bn, -7.3% QoQ) rundown continued, which now contributed only 3.5% of total loan assets. Asset quality remained stable for the quarter with GNPA/NNPA at 1.73%/1.14% (-5bps/-5bps QoQ) and mgmt. expects recoveries of up to INR 22bn (INR 17bn from corporates and INR 5bn from retail) starting 4Q24. The stock has outperformed NIFTY 50 over 3m/6m/12m by 6.4%/ 22.4%/72% as it clocked ROAs of around 2% over the last three quarters. We believe further upside will be contingent to i) strong loan asset growth led by retail book ii) continued expansion of the higher yielding affordable segment and iii) meaningfully lower credit cost compared to past cycle trends. We value PNBHF at 1.3x FY26E BV to arrive at a TP of INR 920. Maintain BUY.

- Moderate loan growth was supported by retail segment; scaling up affordable housing: In 3QFY24, moderate growth in overall loan assets (INR 623bn, +7.4% YoY, +2.4% QoQ) was led by retail loans (INR 601bn, +13.2% YoY, +2.8% QoQ) while corporate book (INR 22.1bn, -7.3% QoQ) rundown continued, which now contributed only 3.5% of total loan assets. Retail disbursements were stagnant sequentially at INR 41.1bn (+22% YoY, -1.3% QoQ) while the disbursements in affordable housing segment grew to INR 4.1bn (+9% QoQ). PNBHF plans to expand its affordable housing product range, projecting a yield enhancement of around 100bps from 1QFY25 in this segment. However, mgmt. slashed its loan growth guidance from 17% to 15% for FY24, while maintaining 17% expected growth rate for FY25. We revise our avg. loan growth down to 16% over FY24E-FY26E.
- Lower NII leads to a less than anticipated PAT; NIM contracts: Lower than expected NII (INR 5.9bn, -17% YoY, -8% QoQ) and elevated opex (INR 1.7bn, flat QoQ) resulted in a less than anticipated PPOP (-20% YoY, -2% QoQ) and PAT (INR 3.4bn, +26% YoY, -12%QoQ, -11% JMFe). Lower yields (due to reducing corporate mix, one time impact of mclr change on securitised book and higher competition) and stagnant cost of borrowings (adj. for one time ECB hedging cost) resulted in sequential NIM contraction (3.65%, -19 bps QoQ). Mgmt. aims to bring down CoB (owing to latest rating upgrade and NHB borrowings) and plans to introduce higher yielding "Emerging segment" in Q1FY25 (30-40 bps higher yields than prime) to combat NIM compression. Elevated competition and recent RBI circular potentially mandating HFCs to keep higher liquidity buffer on deposits might result in continued pressure on margin.

Financial Summary					(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Net Profit	8,365	10,460	14,342	17,568	22,089
Net Profit (YoY) (%)	-10.1%	25.0%	37.1%	22.5%	25.7%
Assets (YoY) (%)	-7.9%	1.7%	17.0%	13.3%	14.5%
ROA (%)	1.2%	1.6%	2.0%	2.1%	2.3%
ROE (%)	8.9%	10.0%	11.1%	11.3%	12.7%
EPS	49.6	62.0	55.3	67.7	85.1
EPS (YoY) (%)	-10.3%	24.9%	-10.8%	22.5%	25.7%
P/E (x)	17.3	13.9	15.6	12.7	10.1
BV	586	652	570	631	708
BV (YoY) (%)	10.4%	11.4%	-12.6%	10.7%	12.1%
P/BV (x)	1.47	1.32	1.51	1.36	1.21

Source: Company data, JM Financial. Note: Valuations as of 24/Jan/2024



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

Mayank Mistry

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

Apurva Deshmukh

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

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

: (91 22) 66301889

Shreyas Pimple Shreyas Pimple@jmfl.com | Tel: (91 22) 66301881

Recommendation and Price Target					
BUY					
BUY					
920					
0%					
935					
6%					

Key Data – PNBHOUSI IN						
Current Market Price	INR860					
Market cap (bn)	INR223.3/US\$2.7					
Free Float	39%					
Shares in issue (mn)	165.6					
Diluted share (mn)						
3-mon avg daily val (mn)	INR441.1/US\$5.3					
52-week range	907/383					
Sensex/Nifty	71,060/21,454					
INR/US\$	83.1					

Price Performar	nce		
%	1M	6M	12M
Absolute	10.9	24.7	86.6
Relative*	11.0	16.5	60.1

\* To the BSE Sensex

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 See Clapital I Qmiaot Sentan Dkidibsler Asphand

Please see Appendix I at the end of this report for Important Disclosures and

Asset quality stable; expect recoveries: Asset quality remained stable for the quarter with GNPA/NNPA at 1.73%/1.14% (-5bps/-5bps QoQ). PCR stands at 34.1% (vs 33.3% QoQ) of GS3 assets. Credit cost for 9MFY24 stood at 32bps. As the company continues to run down its corporate book and focuses on granular retail assets, mgmt. expects recoveries of up to INR 22bn (INR 17bn from corporates and INR 5bn from retail) starting 4Q24. We build in avg. credit costs of 34bps over FY24E-26E.

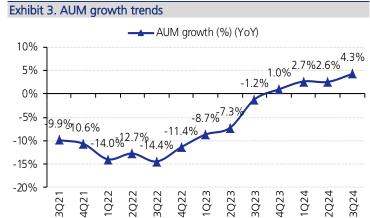
■ Valuation and view: PNBHF has outperformed NIFTY 50 over 3m/6m/12m by 6.4%/22.4%/72% as it clocked ROAs of around 2% over the last three quarters. RoE uptick will follow up as it raises leverage from current levels. We believe further upside will be contingent to i) Strong loan asset growth led by retail book ii) Continued expansion of the higher yielding affordable segment and iii) Meaningfully lower credit cost compared to past cycle trends. We value PNBHF at 1.3x FY26E BV to arrive at a TP of INR 920. Maintain BUY.

## PNB Housing Finance: 3QFY24 highlights

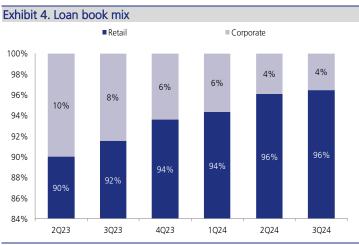
Exhibit 1. 3QFY24 – key highlights					
Earnings Table (INR mn)	Q3FY23	Q2FY24	Q3FY24	YoY (%)	QoQ (%)
Net Interest Income	7,173	6,456	5,929	-17.3%	-8.2%
Total Non-Interest income	829	765	765	-7.7%	-0.1%
Total Income	8,002	7,221	6,694	-16.3%	-7.3%
Employee Cost	582	855	806	38.4%	-5.7%
Depreciation and Amortisation	126	113	131	3.6%	15.2%
Other expenses	1,052	709	720	-31.6%	1.5%
Total Operating Expenses	1,785	1,702	1,700	-4.8%	-0.1%
Operating Profit (PPP)	6,217	5,519	4,994	-19.7%	-9.5%
Total Provisions	2,548	448	591	-76.8%	31.9%
PBT	3,669	5,071	4,403	20.0%	-13.2%
Tax	978	1,241	1,019	4.2%	-17.9%
Reported Profit	2,691	3,830	3,384	25.8%	-11.6%
Loan Book (INR bn)					
Disbursements	34.3	41.8	41.4	21.0%	-0.9%
Loans	580.3	608.5	623.4	7.4%	2.4%
Ratios Analysis (%)					
Cost to Income (%)	22.3%	23.6%	25.4%	3.09%	1.83%
Effective Tax Rate (%)	26.6%	24.5%	23.1%	-3.51%	-1.34%
Credit Quality					
Gross NPAs (INR mn)	28,240	10,860	10,790	-61.8%	-0.6%
Net NPAs (INR mn)	18,687	7,241	7,106	-62.0%	-1.9%
Gross NPA (%)	4.87%	1.78%	1.73%	-3.14%	-0.05%
Net NPA (%)	3.22%	1.19%	1.14%	-2.08%	-0.05%
Coverage Ratio (%)	33.8%	33.3%	34.1%	0.3%	0.8%

#### Exhibit 2. Disbursement trends Disbursements growth (%) (YoY) 180% 153% 140% 96% 100% 45 60% 7% <sup>16%21%</sup> %21%22% 20% -20% 3Q24 2022 Q23 2023 3Q23 4Q23 Q24 2024 1Q22

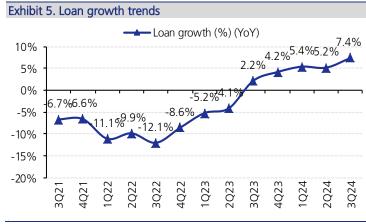
Source: Company, JM Financial



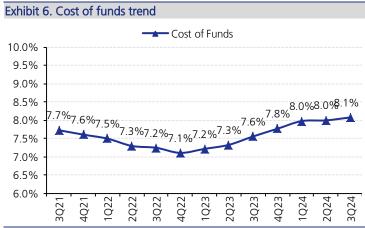
Source: Company, JM Financial



Source: Company, JM Financial; Stopped disclosure of LAP from 2Q24; NRPL, LAP & IH constitute retail



Source: Company, JM Financial

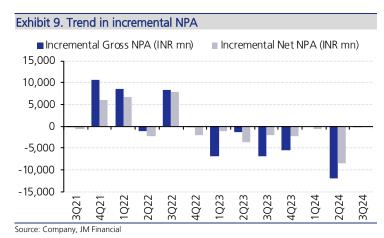


Source: Company, JM Financial



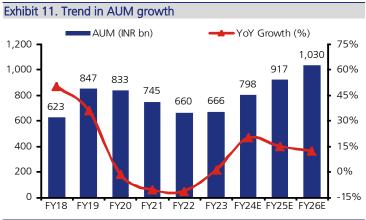
Exhibit 8. Trend in Spread							
Spread Reported (%)	Q1FY23	Q2FY23	Q3FY23	Q4FY23	Q1FY24	Q2FY24	Q3FY24
Yield on Advances (Q) (%) (Given by Co)	8.63%	10.70%	11.38%	10.41%	10.59%	10.58%	10.19%
Cost of Funds (Q) (%) (Given by Co)	7.21%	7.32%	7.55%	7.76%	7.97%	7.99%	8.07%
Spread (%)	1.42%	3.38%	3.83%	2.65%	2.62%	2.59%	2.12%

Source: Company, JM Financial

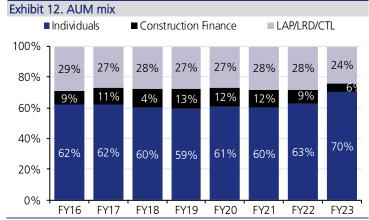




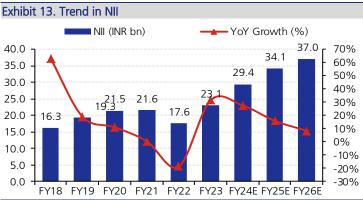
### PNB Housing Finance – Annual trends



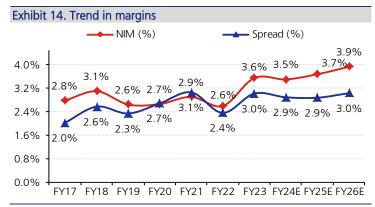
Source: Company, JM Financial



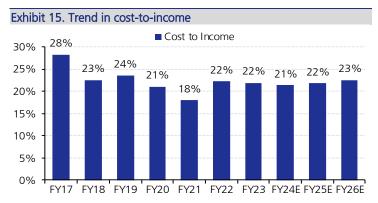
Source: Company, JM Financial



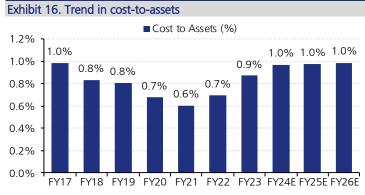
Source: Company, JM Financial



Source: Company, JM Financial

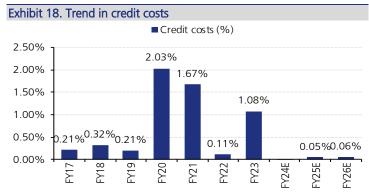


Source: Company, JM Financial









Source: Company, JM Financial



Source: Company, JM Financial



Source: Company, JM Financial

## Financial Tables (Consolidated)

Income Statement				(1	NR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Net Interest Income (NII)	17,571	23,100	24,724	30,043	37,017
Non Interest Income	3,787	3,197	3,020	3,711	4,541
Total Income	21,359	26,297	27,744	33,754	41,557
Operating Expenses	4,756	5,775	7,257	8,736	9,736
Pre-provisioning Profits	16,603	20,522	20,487	25,018	31,822
Loan-Loss Provisions	143	-11,255	-3,013	-232	874
Others Provisions	5,620	18,168	4,994	2,582	2,261
Total Provisions	5,764	6,913	1,981	2,350	3,135
PBT	10,840	13,609	18,506	22,668	28,687
Tax	2,475	3,149	4,164	5,100	6,598
PAT (Pre-Extra ordinaries)	8,365	10,460	14,342	17,568	22,089
Extra ordinaries (Net of Tax)	0	0	0	0	0
Reported Profits	8,365	10,460	14,342	17,568	22,089
Dividend	0	0	1,434	1,757	2,209
Retained Profits	8,365	10,460	12,908	15,811	19,880

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Equity Capital	1,686	1,688	2,595	2,595	2,595
Reserves & Surplus	97,030	1,08,450	1,45,389	1,61,199	1,81,079
Stock option outstanding	0	0	0	0	0
Borrowed Funds	5,30,050	5,36,513	6,06,260	6,91,136	7,94,807
Deferred tax liabilities	0	0	0	0	0
Preference Shares	0	0	0	0	0
Current Liabilities & Provisions	28,530	22,086	28,167	31,927	36,541
Total Liabilities	6,57,296	6,68,737	7,82,410	8,86,857	10,15,021
Net Advances	5,53,359	5,78,398	6,69,185	7,82,193	8,97,831
Investments	34,827	31,963	33,459	46,932	53,870
Cash & Bank Balances	50,656	36,778	46,843	39,110	44,892
Loans and Advances	7,167	7,675	6,692	7,822	8,978
Other Current Assets	5,938	11,112	22,981	7,161	5,336
Fixed Assets	1,359	1,355	1,546	1,708	1,904
Miscellaneous Expenditure	0	0	0	0	0
Deferred Tax Assets	3,989	1,457	1,704	1,932	2,211
Total Assets	6,57,296	6,68,737	7,82,410	8,86,857	10,15,021

Source: Company, JM Financial

Key Ratios					
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Growth (YoY) (%)					
Borrowed funds	-10.8%	1.2%	13.0%	14.0%	15.0%
Advances	-8.8%	4.5%	15.7%	16.9%	14.8%
Total Assets	-7.9%	1.7%	17.0%	13.3%	14.5%
NII	-18.6%	31.5%	7.0%	21.5%	23.2%
Non-interest Income	3.8%	-15.6%	-5.5%	22.9%	22.4%
Operating Expenses	4.7%	21.4%	25.7%	20.4%	11.4%
Operating Profits	-19.8%	23.6%	-0.2%	22.1%	27.2%
Core Operating profit	-18.8%	30.3%	-0.5%	22.0%	27.4%
Provisions	-33.1%	19.9%	-71.3%	18.6%	33.4%
Reported PAT	-10.1%	25.0%	37.1%	22.5%	25.7%
Yields / Margins (%)					
Interest Spread	2.36%	3.02%	2.89%	2.88%	3.04%
NIM	2.60%	3.55%	3.50%	3.68%	3.93%
Profitability (%)					
ROA	1.22%	1.58%	1.98%	2.10%	2.32%
ROE	8.9%	10.0%	11.1%	11.3%	12.7%
Cost to Income	22.3%	22.0%	26.2%	25.9%	23.4%
Asset quality (%)					
Gross NPA	8.24%	3.88%	1.74%	1.31%	1.28%
LLP	0.11%	1.08%	-0.48%	-0.03%	0.10%
Capital Adequacy (%)					
Tier I	20.70%	22.40%	26.95%	26.65%	26.44%
CAR	23.40%	24.43%	28.68%	28.91%	29.05%

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
NII / Assets	2.56%	3.48%	3.41%	3.60%	3.89%
Other Income / Assets	0.55%	0.48%	0.42%	0.44%	0.48%
Total Income / Assets	3.12%	3.97%	3.82%	4.04%	4.37%
Cost / Assets	0.69%	0.87%	1.00%	1.05%	1.02%
PPP / Assets	2.42%	3.10%	2.82%	3.00%	3.35%
Provisions / Assets	0.84%	1.04%	0.27%	0.28%	0.33%
PBT / Assets	1.58%	2.05%	2.55%	2.72%	3.02%
Tax rate	22.8%	23.1%	22.5%	22.5%	23.0%
ROA	1.22%	1.58%	1.98%	2.10%	2.32%
Leverage	6.7	6.1	5.3	5.4	5.5
ROE	8.9%	10.0%	11.1%	11.3%	12.7%

Source: Company, JM Financial

Valuations					
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Shares in Issue	168.6	168.8	259.5	259.5	259.5
EPS (INR)	49.6	62.0	55.3	67.7	85.1
EPS (YoY) (%)	-10.3%	24.9%	-10.8%	22.5%	25.7%
P/E (x)	17.3	13.9	15.6	12.7	10.1
BV (INR)	586	652	570	631	708
BV (YoY) (%)	10.4%	11.4%	-12.6%	10.7%	12.1%
P/BV (x)	1.47	1.32	1.51	1.36	1.21
DPS (INR)	0.0	0.0	5.5	6.8	8.5
Div. yield (%)	0.0%	0.0%	0.6%	0.8%	1.0%

History of Recommendation and Target Price								
Date	Recommendation	Target Price	% Chg.					
23-Jan-20	Hold	500						
29-Oct-20	Hold	400	-20.0					
28-Jan-21	Hold	410	2.5					
28-Apr-21	Hold	430	4.9					
31-May-21	Buy	800	86.0					
4-Aug-21	Buy	780	-2.5					
21-Jan-22	Buy	550	-29.5					
31-Jul-22	Buy	550	0.0					
27-Oct-22	Buy	550	0.0					
24-Jan-23	Buy	625	13.6					
19-May-23	Buy	625	0.0					
24-Jul-23	Buy	750	20.0					
25-Oct-23	Buy	825	10.0					



### 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 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.

<sup>\*</sup> 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