India Banks- Sep'25 update

System credit growth inches up; liquidity back in surplus

Ajit Kumar
ajit.k@jmfl.com | Tel: (91 22) 66303489
Raghvesh
raghvesh@jmfl.com | Tel: (91 22) 66303099
Pratik Matkar
pratik.matkar@jmfl.com | Tel: (91 22) 66301881
Mayank Mistry
mayank.mistry@jmfl.com | Tel: (91 22) 62241877
Arun Nalkara
arun.nalkara@jmfl.com | Tel: (91 22) 39533640
Shubham Karvande
shubham.karvande@jmfl.com | Tel: (91 22) 66303696
Sunita Nayak
sunita.nayak@jmfl.com | Tel: (91 22) 66301889

According to the latest fortnightly data as of 18th Oct'25, system credit growth edged higher to 11.4% YoY (from 10.4% YoY on 19th Sep'25), while deposit growth was flat at 9.5% YoY. The system credit-deposit ratio remains elevated at around 80% as of Oct'25. RBI's sectoral credit data for Sep'25 shows a slight uptick in overall system credit growth to 10.2% YoY (from 9.9% YoY in Aug'25), primarily driven by credit expansion in the agriculture and industry sectors. Credit to agriculture grew by 7.3% YoY in Sep'25 (vs. 6.5% YoY in Aug'25), while credit to industry rose by 9% YoY (up from 7.6% YoY in Aug'25). Retail loans growth was steady at ~11.7% YoY (compared to 11.8% YoY in Aug'25), though growth in services credit moderated to 10.2% YoY (vs. 10.6% YoY in Aug'25). Within industry, MSMEs led the growth, expanding by 19.7% YoY (up from 18.5% YoY in Aug'25). Meanwhile, credit to NBFCs, while still muted, edged up to ~3.9% YoY (vs. 3.4% YoY in Aug'25).

Lending rates on fresh loans have been cut by ~24bps MoM to 8.5% in Sep'25 led by a 25bps MoM cut by PSU banks. On an outstanding basis, lending rates have moderated by ~6bps MoM in Sep'25, and by an overall 54bps since Feb'25, outpacing the ~28bps reduction in outstanding term deposit rates, thereby exerting continued pressure on NIMs for banks. On O/s basis, spread between lending rates and deposit rates for both PSU and PVT banks were largely steady MoM (-2bps/+2bps MoM at 172bps/326bps respectively). Since Feb'25, transmission on the liability side has been fairly consistent for both PSU and PVT banks (-25bps/-24bps respectively), whereas on the asset side, the transmission for PSU banks (-47bps) have lagged PBT banks (-63bps). Except for 1Y/5Y NBFC AAA, NBFC yields for all other tenors/ratings were up by ~6-10bps MoM in Oct'25.

We continue to remain positive on banks given inch up in credit growth, NIMs bottoming out and benign/improving asset quality. Our preferred names in banks are: Axis, ICICI, BoB, SBI, HDFC Bank, CUBK, Ujjivan and DCB Bank.

- **Segment-wise loan growth trends:** System retail credit growth was steady at 11.7% YoY in Sep'25 (vs. 11.8% YoY in Aug'25). Within retail, vehicle loan growth declined to 7.3% YoY (vs. 8.7% YoY in Aug'25) and unsecured retail loans to 7.5% YoY (vs. 7.8% YoY in Aug'25). In contrast, the housing segment saw a modest uptick, with growth rising to 10.1% YoY (vs. 9.7% YoY in Aug'25). Within the housing segment, priority HLs grew at ~29.9% YoY (vs. ~26.2% YoY in Aug'25), while non-priority HLs saw a slight moderation to 3% YoY (vs. 3.8% YoY in Aug'25). Despite continued stress concerns in the MSME sector, credit growth increased to 19.7% YoY (vs. 18.5% YoY in Aug'25). Services sector loan growth moderated to 10.2% YoY (vs. 10.6% YoY in Aug'25). Agricultural credit improved to 9.0% YoY (vs. 7.6% YoY in Aug'25), while industrial credit growth improved modestly to 7.3% YoY (vs. 6.5% YoY in Aug'25). Credit extended to NBFCs, though muted, rose to ~3.9% YoY compared to 3.4% YoY in Aug'25.

- **System liquidity bounces back to surplus; forex reserves moderate:** System liquidity rebounded to a surplus of ~INR 1.1trln as of 2nd Nov'25, following a brief deficit of ~INR 0.6trln recorded on 21st Oct'25. Foreign exchange reserves moderated MoM to USD 695bn as of 24th Oct'25, down from USD 700bn on 26th Sep'25. Currency-in-circulation rose slightly to ~INR 37.9trln as of 17th Oct'25, compared to ~INR 37.6 trln as of 19th Sep'25. The benchmark 10-year G-sec yield and the US 10-year Treasury yield both eased by 5bps MoM in Oct'25 to ~6.5% and 4.1%, respectively, maintaining a steady spread of 242bps between the two. Despite the Fed's 25bps rate cut on 29th Oct'25, US Treasury yields across various maturities have remained stable, reflecting on-going inflation concerns.

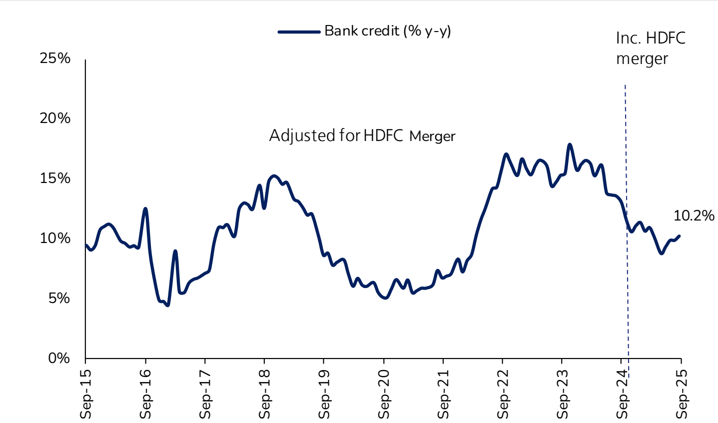
- **Our view:** We continue to remain positive on banks given inch up in credit growth, NIMs bottoming out and benign/improving asset quality. Our preferred names in banks are: Axis, ICICI, BoB, SBI, HDFC Bank, CUBK, Ujjivan and DCB Bank.

Exhibit 1. System credit growth inched up-to 10.2% YoY in Sep'25 largely driven by increase in the agri and industry segments; while retail and services segments showed slight moderation in YoY growth for Sep'25

Credit growth (YoY)	Adjusting for merger			Inc. merger				
Segments	**FY23**	**FY24**	**FY25**	**FY23**	**FY24**	**FY25**	**Aug'25**	**Sep'25**
Overall	**15.4%**	**16.3%**	**12.0%**	**15.4%**	**20.2%**	**11.0%**	**9.9%**	**10.2%**
Agri	**18.2%**	**19.9%**	**10.4%**	**18.2%**	**19.9%**	**10.4%**	**7.6%**	**9.0%**
Industry	**7.1%**	**7.6%**	**8.0%**	**7.1%**	**8.1%**	**7.7%**	**6.5%**	**7.3%**
MSME	20.9%	14.2%	11.7%	20.9%	14.2%	11.7%	18.5%	19.7%
Large Enterprises	2.8%	5.8%	6.2%	2.8%	5.8%	6.2%	1.8%	2.4%
Within Industry								
Textiles	3.6%	10.4%	8.3%	3.6%	10.4%	8.3%	6.4%	7.1%
Metals	19.1%	11.8%	12.8%	19.1%	11.8%	12.8%	8.9%	9.1%
Power	1.5%	3.7%	6.0%	1.5%	3.7%	6.0%	10.8%	12.0%
Telecom	-16.6%	27.1%	-13.9%	-16.6%	27.1%	-13.9%	-16.7%	-14.5%
Roads	5.7%	11.3%	-2.2%	5.7%	11.3%	-2.2%	-3.4%	-2.0%
Retail	**23.4%**	**17.7%**	**14.0%**	**23.4%**	**27.5%**	**11.7%**	**11.8%**	**11.7%**
Housing	18.1%	17.3%	15.3%	18.1%	36.7%	10.7%	9.7%	10.1%
Vehicle	24.8%	14.1%	8.6%	24.8%	14.1%	8.6%	8.7%	7.3%
Unsecured retail	29.4%	20.8%	9.1%	29.4%	22.5%	8.8%	7.8%	7.5%
Services	**24.0%**	**20.2%**	**13.4%**	**24.0%**	**22.9%**	**12.4%**	**10.6%**	**10.2%**
Real Estate	10.8%	24.1%	22.0%	10.8%	45.4%	13.6%	13.3%	15.5%
Trade	25.3%	17.6%	15.7%	25.3%	17.6%	15.7%	12.4%	11.8%
NBFC	31.3%	15.3%	5.7%	31.3%	15.3%	5.7%	3.4%	3.9%

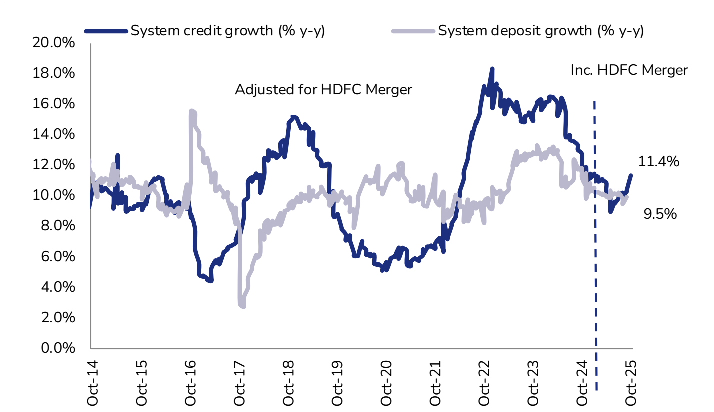
Source: Company, JM Financial
Note: Excluding merger values reporting has been discontinued since Jun-25

Exhibit 2. Monthly trends: Bank credit growth inched up-to 10.2% YoY as of Sep'25



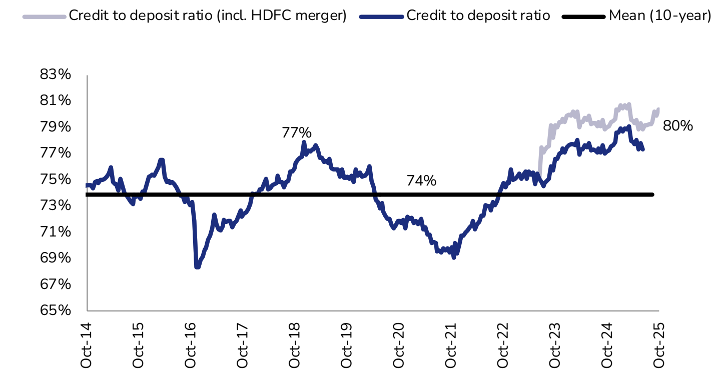
Source: RBI, JM Financial

Exhibit 3. Fortnightly trends: system credit growth increased to 11.4% YoY while system deposit moderated to 9.5% YoY as of 18th Oct'25



Source: RBI, JM Financial

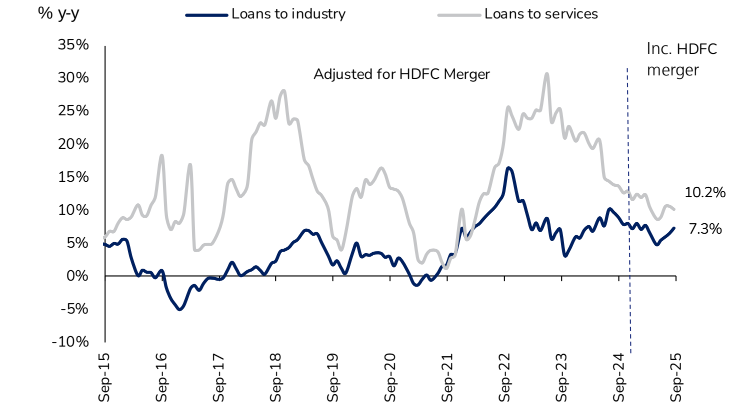
Exhibit 4. CD ratio remains elevated at 80% vs. 10-year average of 74%



Source: RBI, JM Financial

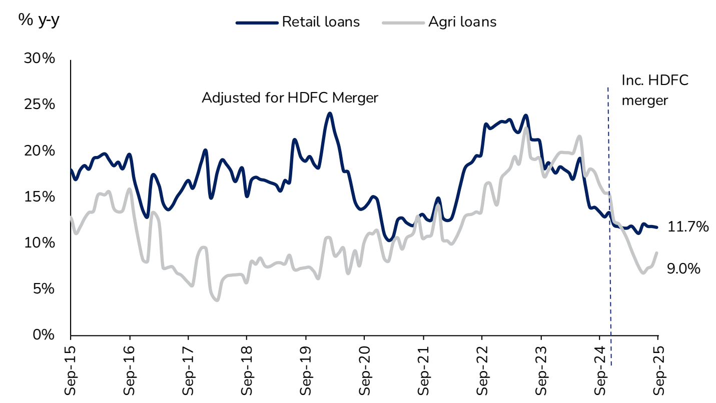
Note: Excluding merger values reporting has been discontinued since Aug-25

Exhibit 5. Industry loan growth increased to 7.3% YoY (vs. 6.5% in Aug-25); services loan growth moderated to 10.2% YoY in Sep'25



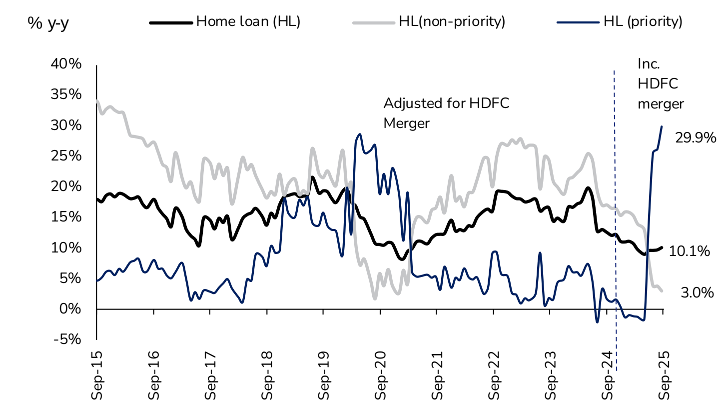
Source: RBI, JM Financial

Exhibit 6. Retail loan growth was steady at 11.7% YoY (vs. 11.8% YoY in Aug '25) while agri loan growth increased to 9.0% YoY (vs. 7.6% YoY in Aug'25)



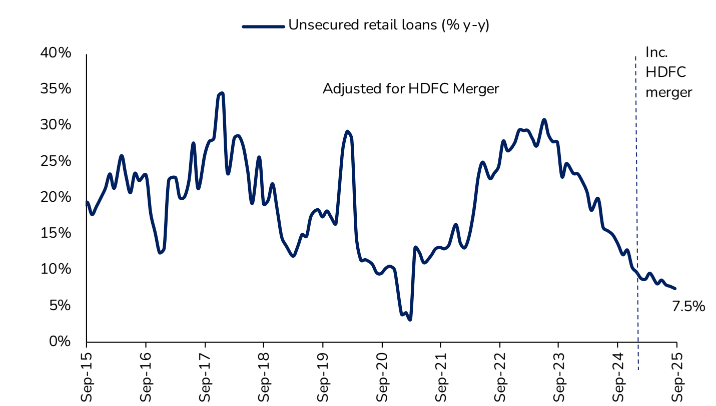
Source: RBI, JM Financial

Exhibit 7. Home loan growth increased to 10.1% YoY in Sep'25. Priority loans growth increased to 29.9% YoY (vs. 26.2% YoY in Aug'25); non-priority growth moderated to 3.0% YoY (vs. 3.8% in Aug'25)



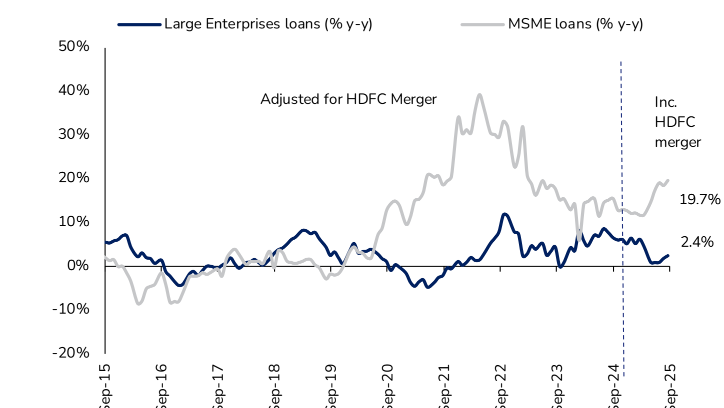
Source: RBI, JM Financial

Exhibit 8. Unsecured retail credit growth moderated to 7.5% YoY in Sep'25 (vs. 7.8% YoY in Aug'25)



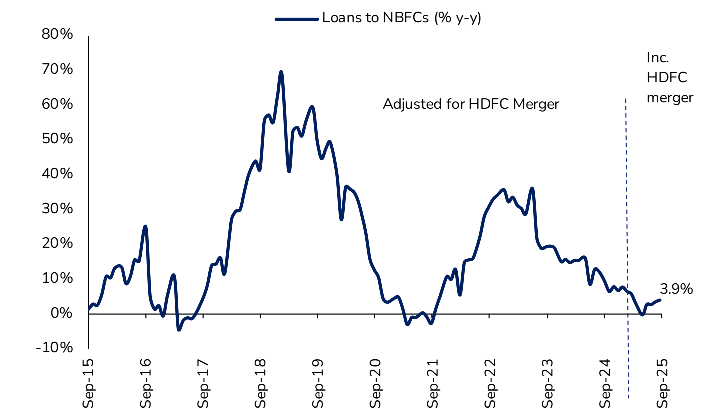
Source: RBI, JM Financial

Exhibit 9. MSME loans grew 19.7% YoY (vs. 18.5% in Aug'25) and large enterprises credit grew 2.4% YoY (vs. 1.8% YoY in Aug'25)



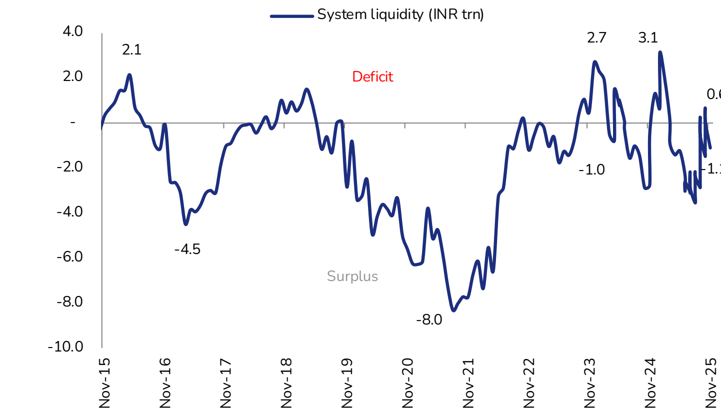
Source: RBI, JM Financial

Exhibit 10. Growth of loans to NBFCs inched up to 3.9% YoY in Sep'25 (vs. 3.4% in Aug'25)



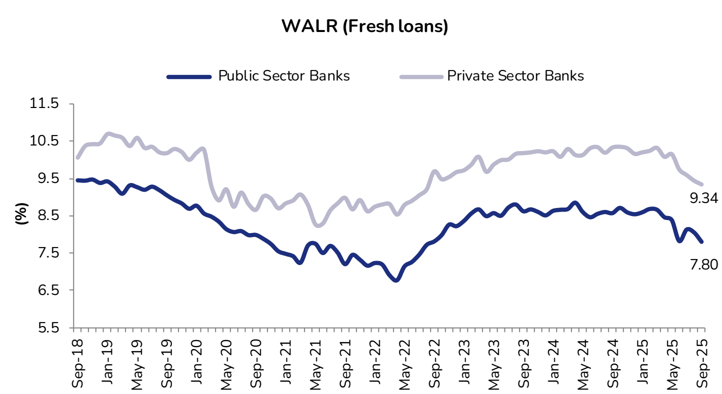
Source: RBI, JM Financial

Exhibit 11. System liquidity moved back into a surplus of INR 1.1trln as of 2nd Nov'25 after briefly moving into deficit on 20th Oct'25



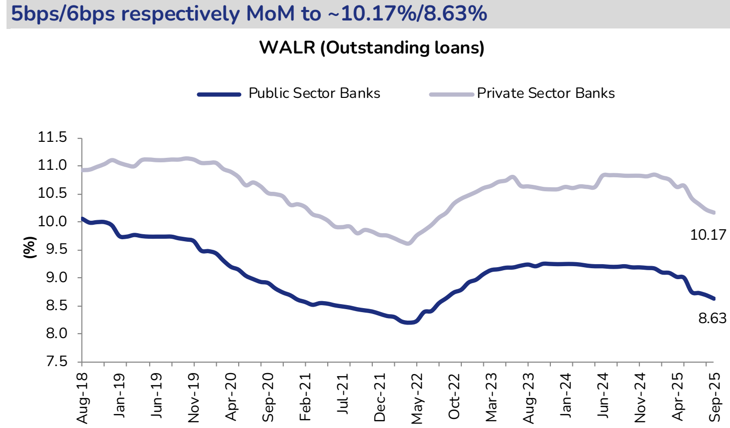
Source: RBI, JM Financial, Latest data as of 2nd Nov, 2025

Exhibit 12. WALR on fresh loans decreased MoM for Pvt Banks by 10bps to ~9.4%, and for PSBs by 25bps to 7.8% in Sep'25



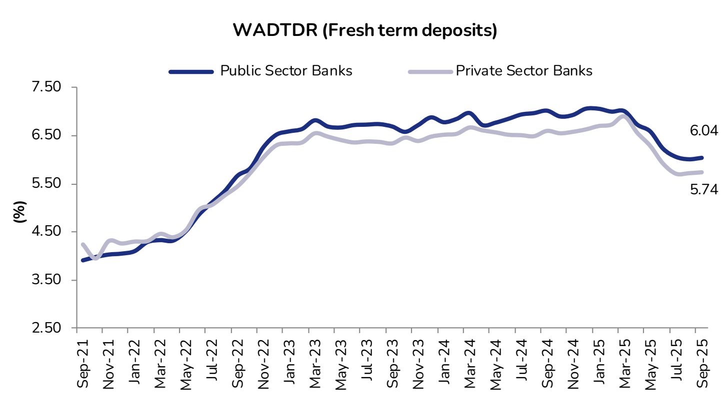
Source: RBI, JM Financial

Exhibit 13. WALR on O/S loans moderated for Pvt Banks/PSBs by 5bps/6bps respectively MoM to ~10.17%/8.63%



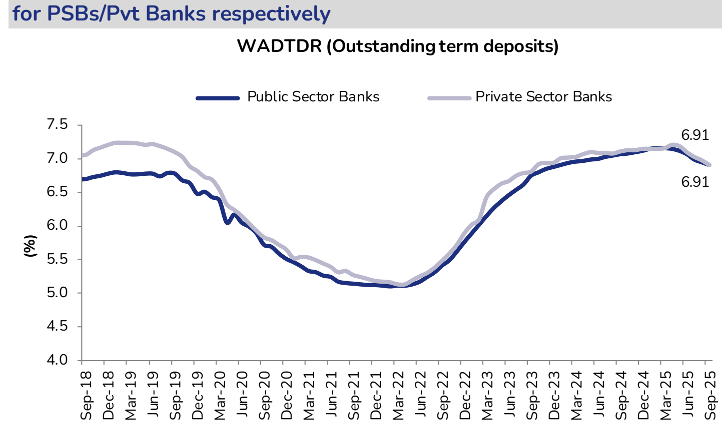
Source: RBI, JM Financial

Exhibit 14. Deposit rate on fresh deposits inched up for Pvt Banks/PSBs by 2bps/3bps MoM to 5.74%/6.04% in Sep'25



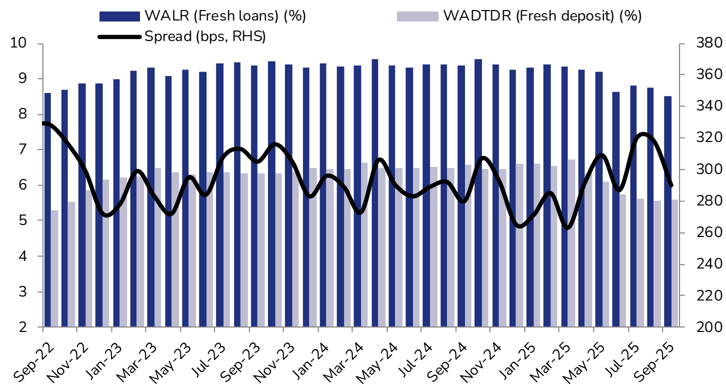
Source: RBI, JM Financial

Exhibit 15. Deposit rate for O/S deposits moderated by 4bps/7bps MoM for PSBs/Pvt Banks respectively



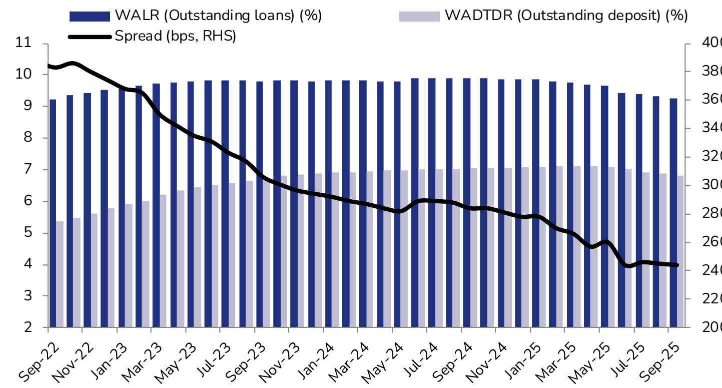
Source: RBI, JM Financial

Exhibit 16. Spread between WALR-WADTDR (fresh loans) for SCBs declined to 290bps in Sep'25 (vs. 318bps in Aug'25)



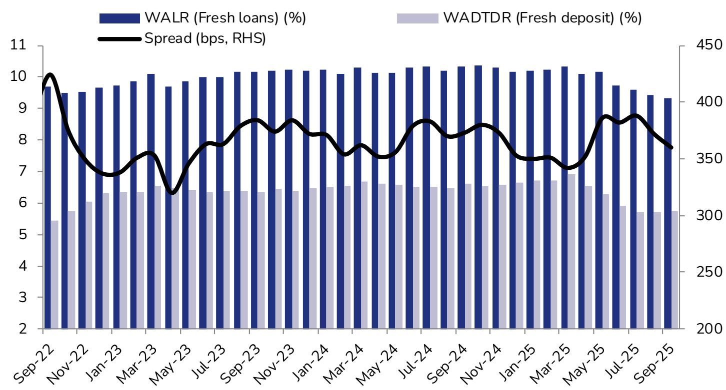
Source: RBI, JM Financial

Exhibit 17. Spread between WALR-WADTR (o/s loans) for SCBs was steady MoM at 244 bps in Sep'25 (vs. 245bps in Aug'25)



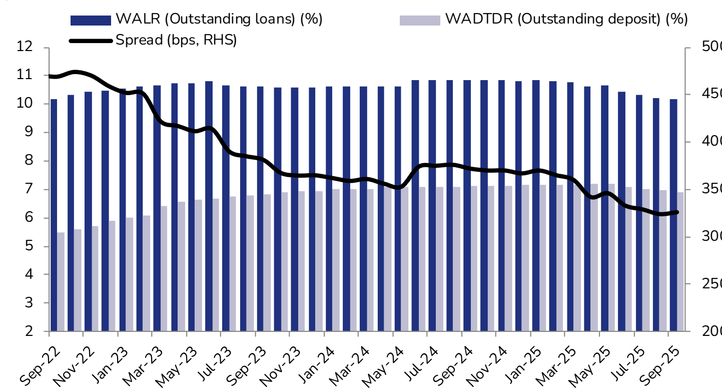
Source: RBI, JM Financial

Exhibit 18. Spreads between WALR-WADTR (fresh loans) for Pvt Banks declined by 12bps in Sep'25 due to 10bps decline in WALR MoM



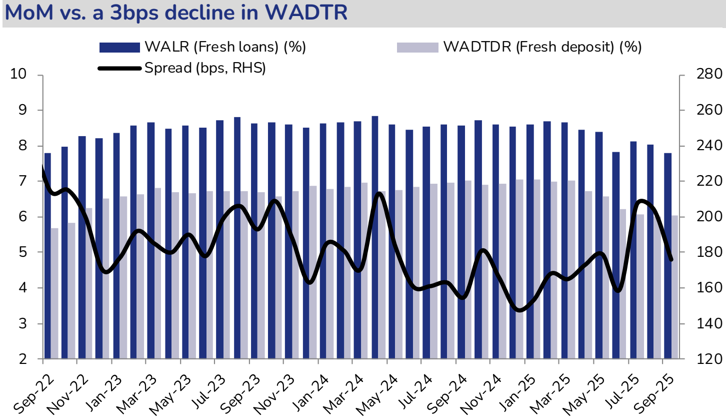
Source: RBI, JM Financial

Exhibit 19. Spread between WALR-WADTR (o/s loans) for Pvt Banks inched up by 2bps MoM in Sep'25 as WADTR moderated by a higher 7bps MoM vs. a 5bps decline in WALR



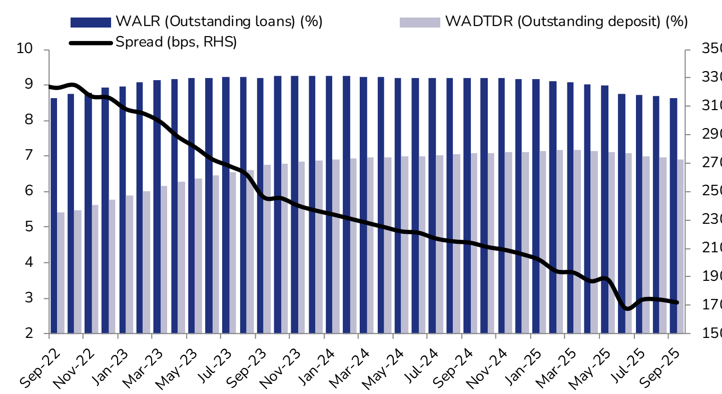
Source: RBI, JM Financial

Exhibit 20. Spreads b/w WALR-WADTR (fresh loans) for PSBs has declined by 28bps to 176bps in Sep'25 as WALR declined by ~25bps MoM vs. a 3bps decline in WADTR



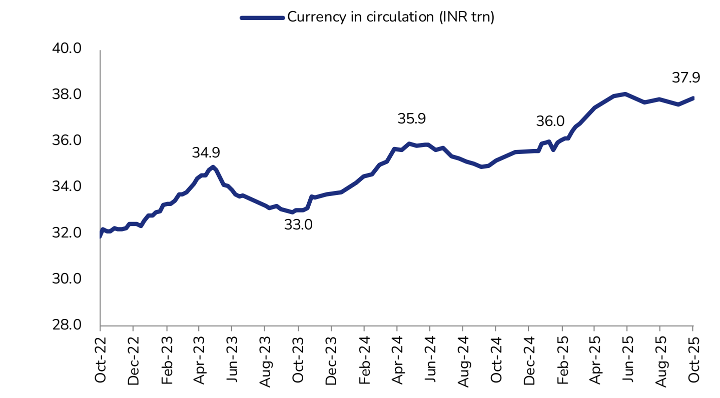
Source: RBI, JM Financial

Exhibit 21. Spread between WALR-WADTR (o/s loans) for PSBs was largely steady at 172bps (vs. 174bps in Aug'25)



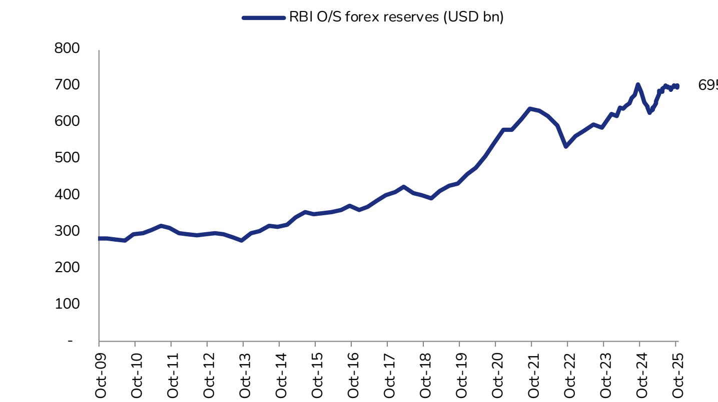
Source: RBI, JM Financial

Exhibit 22. Cash in circulation inched up to INR 37.9trln as on 17th Oct '25 (vs. INR 37.6trln in 19th Sep'25)



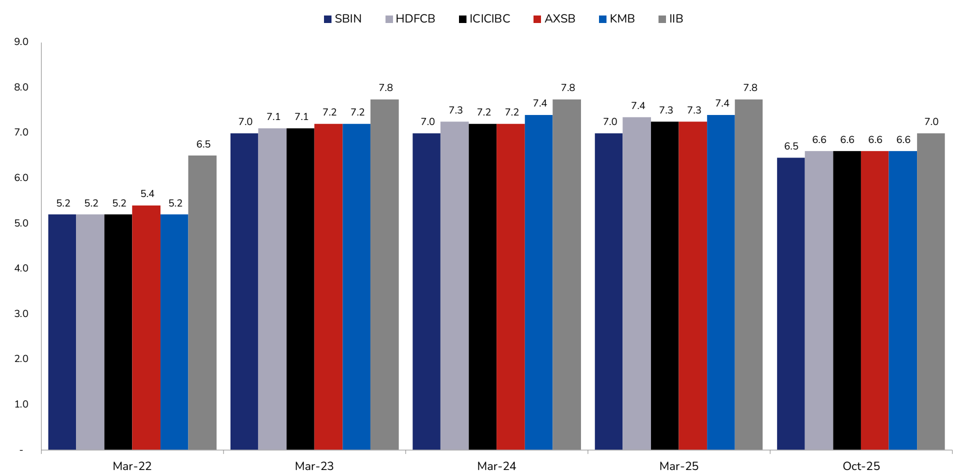
Source: RBI, JM Financial

Exhibit 23. RBI's outstanding forex reserves moderated to USD 695bn for week ended 24th Oct'25 (vs. USD 700bn for week ended 26th Sep'25)



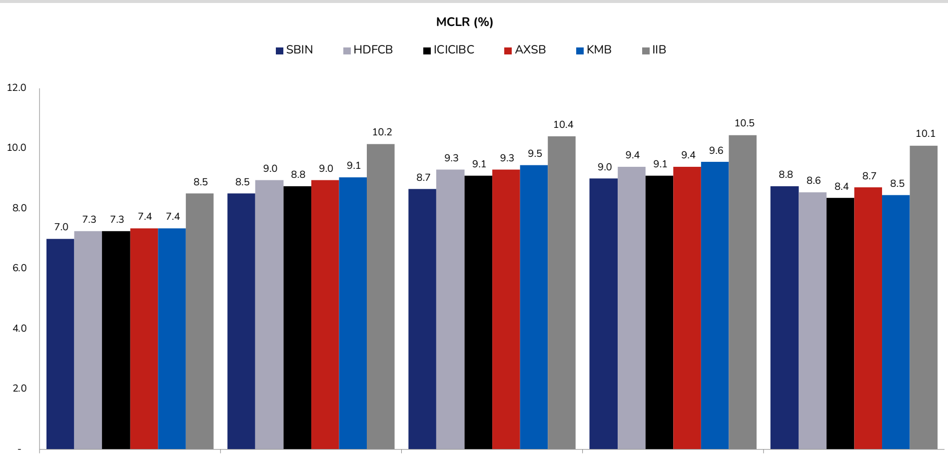
Source: RBI, JM Financial

Exhibit 24. TD Rate (1-3 year bucket) for most large banks has decreased since Mar'25, in line with repo cuts; however, rates have been steady in the current quarter



Source: Company, JM Financial

Exhibit 25. MCLR for most large banks (ex-HDFC/ICICI) have moderated by 5-10bps MoM; HDFC/ICICI have seen steady MCLR MoM



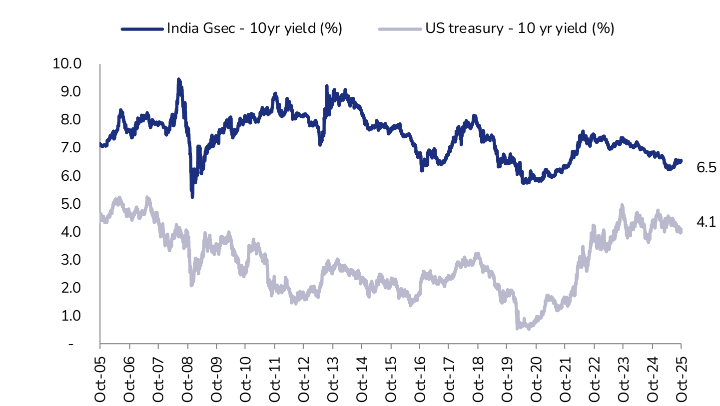
Source: RBI, JM Financial

Exhibit 26. Interest rates of G-Sec, corporate bonds and NBFC bonds (%)

	Interest rates				Change in rates (in bp)		
Rates	**31-Oct-25**	**30-Sep-25**	**31-Oct-24**	**31-Jan-25**	**m-m**	**y-y**	**31-Jan to 31-Oct**
Repo	5.5	5.5	6.5	6.5	-	(100)	(100)
Gsec - 1 year	5.6	5.6	6.5	6.6	2	(96)	(99)
Gsec - 3 year	6.0	5.9	6.7	6.6	8	(73)	(60)
Gsec - 5 year	6.2	6.2	6.8	6.6	(2)	(60)	(45)
Gsec - 10 year	6.5	6.6	6.8	6.7	(4)	(32)	(17)
Corporate Bonds							
AAA - 1 year	6.6	6.7	7.6	7.7	(0)	(98)	(106)
AAA - 3 year	6.9	6.9	7.6	7.5	(1)	(69)	(65)
AAA - 5 year	6.9	6.9	7.5	7.3	2	(58)	(40)
AAA - 10 year	7.3	7.3	7.3	7.2	(3)	(9)	9
AA - 1 year	7.4	7.3	8.2	8.3	4	(88)	(96)
AA - 3 year	7.7	7.7	8.2	8.2	(2)	(51)	(46)
AA - 5 year	7.9	7.9	8.2	8.1	5	(27)	(20)
NBFC Bonds							
AAA - 1 year	6.8	6.8	7.8	7.8	(7)	(109)	(109)
AAA - 3 year	7.1	7.1	7.7	7.8	8	(59)	(66)
AAA - 5 year	7.2	7.2	7.8	7.6	(5)	(66)	(43)
AAA - 10 year	7.5	7.5	7.6	7.4	6	(4)	11
AA - 1 year	7.6	7.5	8.4	8.5	10	(85)	(89)
AA - 3 year	8.1	8.1	8.5	8.5	7	(38)	(41)
AA - 5 year	8.2	8.2	8.5	8.4	7	(31)	(18)

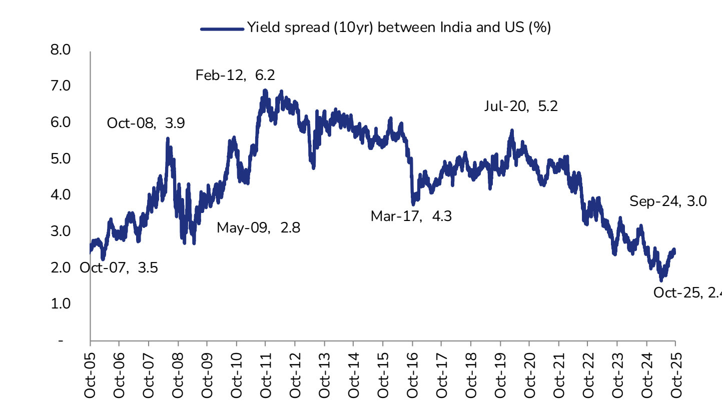
Source: Bloomberg Finance L.P., JM Financial

Exhibit 27. Both 10-year G-sec yield and US 10-year declined 5bps MoM to 6.53%/4.11% respectively



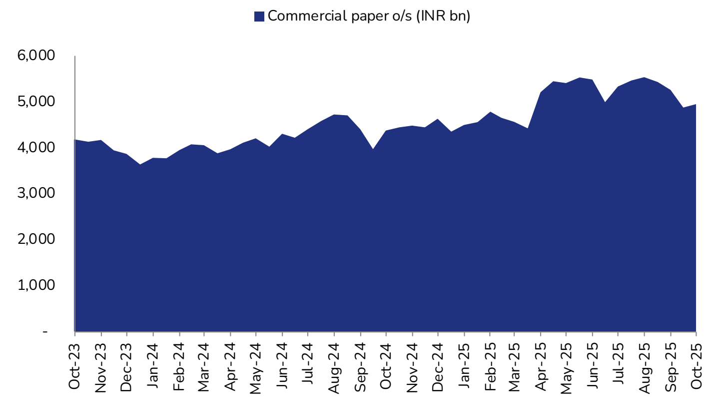
Source: Bloomberg Finance L.P., JM Financial

Exhibit 28. Spreads between 10-year yields of India and the US was steady MoM at 242bps



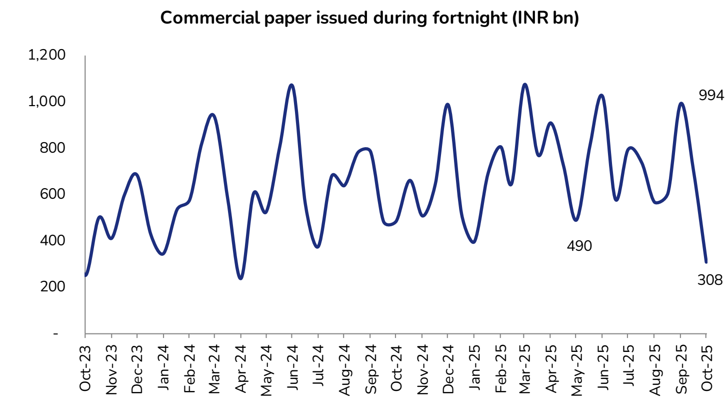
Source: Bloomberg Finance L.P, JM Financial

Exhibit 29. Outstanding CPs declined by ~6% MoM (as of 15th Oct'25)



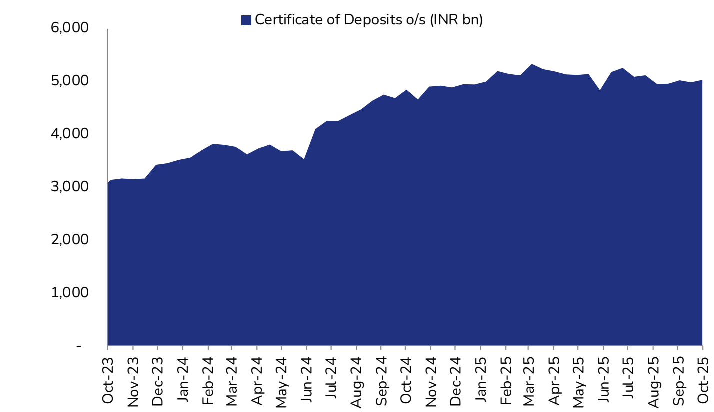
Source: RBI, JM Financial

Exhibit 30. CP issuances increased by ~69% MoM in the fortnight ending 15th Oct'25



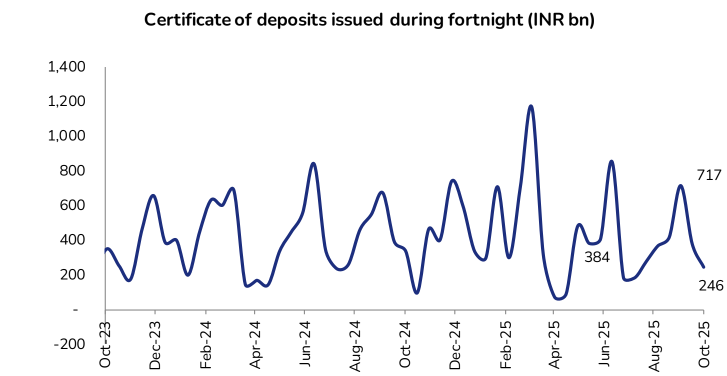
Source: RBI, JM Financial

Exhibit 31. Outstanding CDs were flat MoM for the fortnight ending 17th Oct'25 at ~INR 5trln



Source: RBI, JM Financial

Exhibit 32. CD issuances declined by 65.7% MoM in the fortnight ending 17th Oct'25



Source: RBI, JM Financial

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: Ms. Ashley Johnson | Tel: +91 22 6224 1862 | Email: ashley.johnson@jmfl.com
Grievance Officer: Ms. Ashley Johnson | Tel: +91 22 6224 1862 | Email: instcompliance@jmfl.com

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

New Rating System: Definition of ratings	
Rating	**Meaning**
BUY	Expected return >= 15% over the next twelve months.
ADD	Expected return >= 5% and < 15% over the next twelve months.
REDUCE	Expected return >= -10% and < 5% over the next twelve months.
SELL	Expected return < -10% over the next twelve months.

Note: For REITs (Real Estate Investment Trust) and InvIT (Infrastructure Investment Trust) total expected returns include dividends or DPU (distribution per unit)

Previous Rating System: 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. Please click here to access our detailed Terms and Conditions, including the Most Important Terms and Conditions.

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, 27th Floor, Office No. 2715, 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 loss arising from any use of this research report or the information contained herein.