VARANIUM

GLOBAL FINTECH FEST

Fabric of Fintech

Weaving new threads in a changing environment

Sep 2022

www.varanium.vc

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Foreword

The Fintech sector in India has been growing at an incredible pace over the last few years. The country has cemented its position as one of the leading destinations for fintech investment globally. India has been the recipient of USD 35 Billion of funding, which is over 5.4% of the global investments into the fintech sector. Based on the number of fintech start-ups and unicorns, India ranks as the third largest market globally trailing only the United States and China.

Two threads – finance and technology, interweave the fabric of fintech. The first thread consists of financial subdomains like payments, lending, insurance and wealth management while the second thread consists of enabling technologies like API, Artificial Intelligence and Machine Learning, Distributed Ledger Technologies, Big Data, Internet of Things and AR/VR. The Indian government has provided a major impetus to the fintech sector by creating an enabling ecosystem of interconnected technologies like the India stack and health stack. There are upcoming stacks like Digital sky, national logistics platform – iLog, and Education stack which can become further catalysts for inclusive growth. India is on track to introduce Central Bank Digital Currency (CBDC) in the near future which will be one of the developments that will boost digitization.

These initiatives have helped to increase access to financial services for millions of people in India who were previously excluded from the formal financial system. The growth of fintech in India is also driven by a burgeoning startup ecosystem. With 7,460 fintech companies, India is now ranking third just behind the United States which has 22,290, and China which has 8,870 fintech startups respectively. Out of 100 total unicorns, in India, the fintech ecosystem has 22 unicorns which have reached a scale to establish a strong presence in the global financial services market. With a large, growing population, supportive government policies, improving financial literacy and increasing smartphone penetration, India is well positioned to become a global fintech hub. This report is an update on the report issued by Jefferies® with a contribution from the Varanium Team in Dec 2021 which can be accessed by scanning the QR code given here.

Mumbai
Sept 16, 2022

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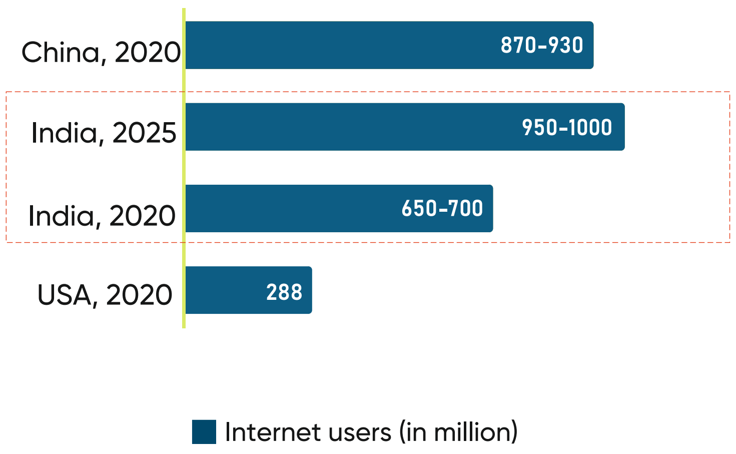
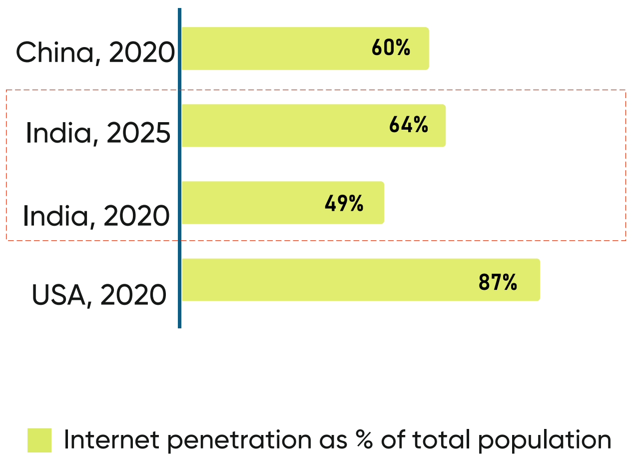
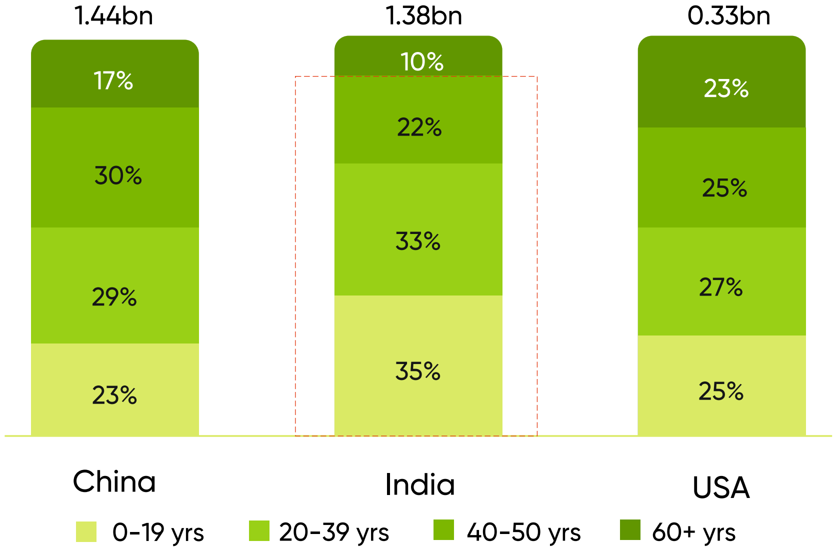
India's internet access is likely to reach China-like levels by 2025



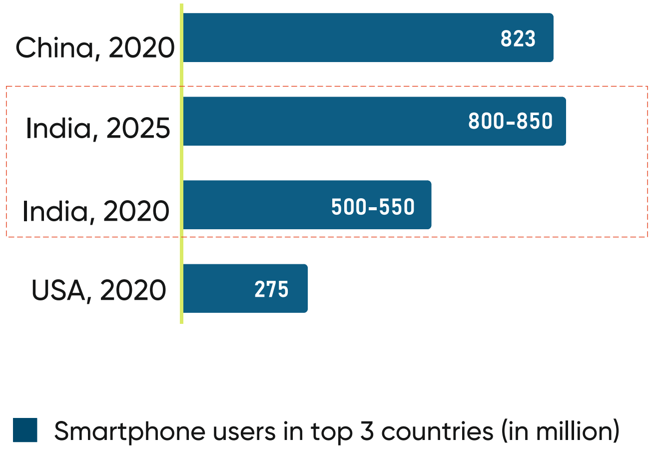
Resulting in comparable internet penetration levels by 2025



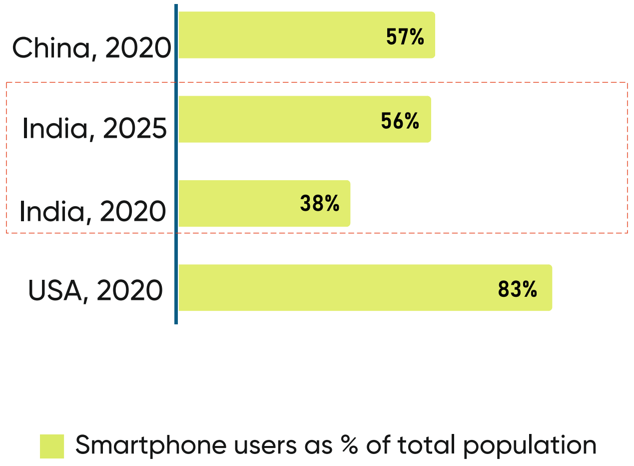
India has a younger population than other large markets



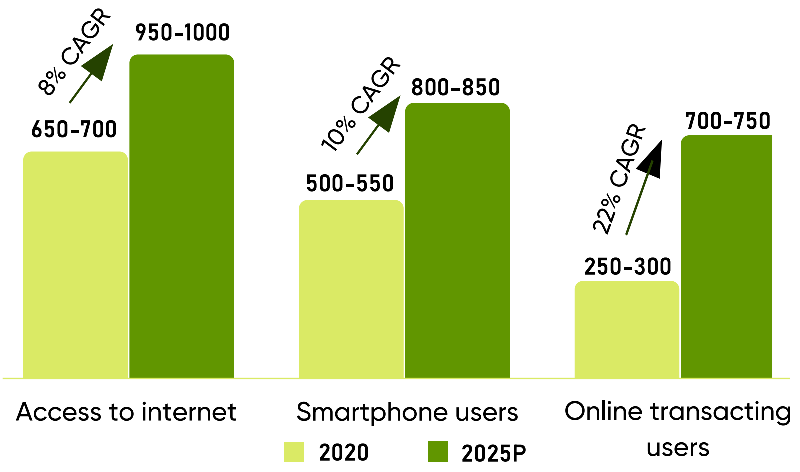
India's Smartphone user likely to reach China like levels by 2025



Resulting in driving up penetration levels further



India is expected to see surge in digitally enabled and transacting population



As per the Finance Minister, a 10 per cent rise in internet penetration results in an increase of 3.9% in GDP per capita.

Source: Jefferies, Varanium Research

India Fintech – Macro Drivers

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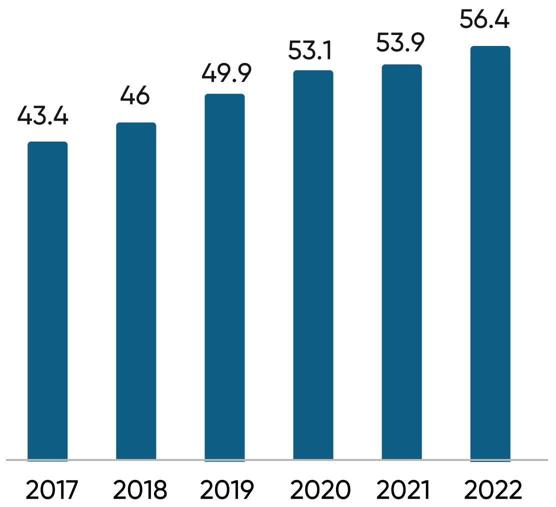
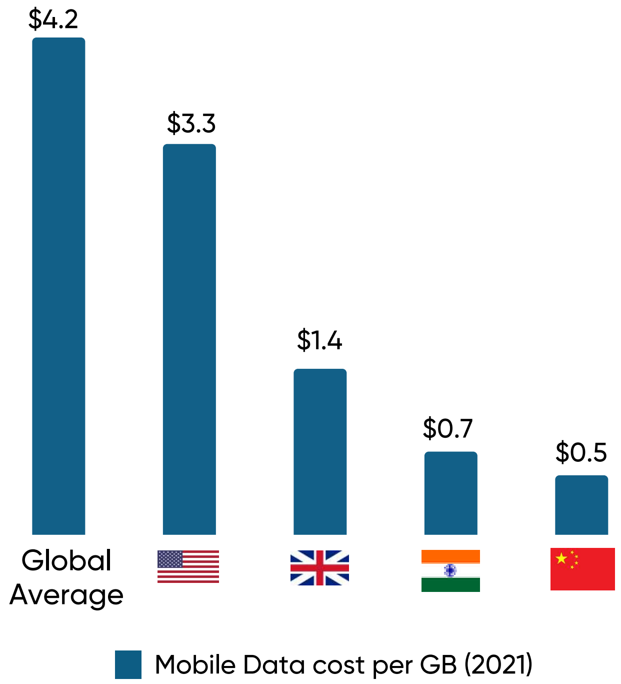
Improvement in FI-Index to drive sustainable development



The index has three parameters: Access (35%), Usage (45%), and Quality (20%) with each of these consisting of various dimensions, which are computed based on a number of indicators.

Mobile data costs are among the lowest in India



National Centre for Financial Education's 5C financial literacy approach to drive inclusive growth and awareness

Capacity
Curriculum in schools, colleges and training establishments

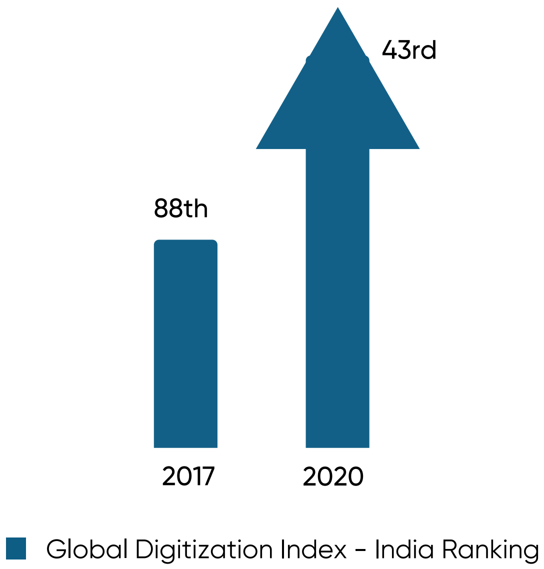
Communication
Creating an appropriate plan

Collaboration
Among the intermediaries involved in providing financial services

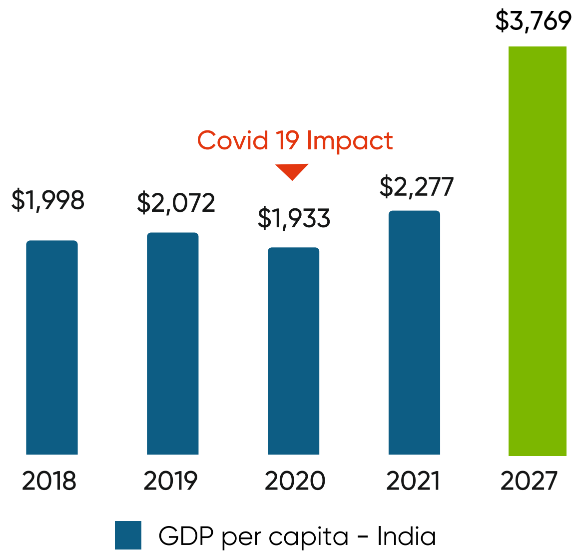
Content
Leveraging on the positive effect for financial literacy

Community
Lastly, enhancing collaboration among various stakeholders

India has improved ranks in the Global Digitization Index



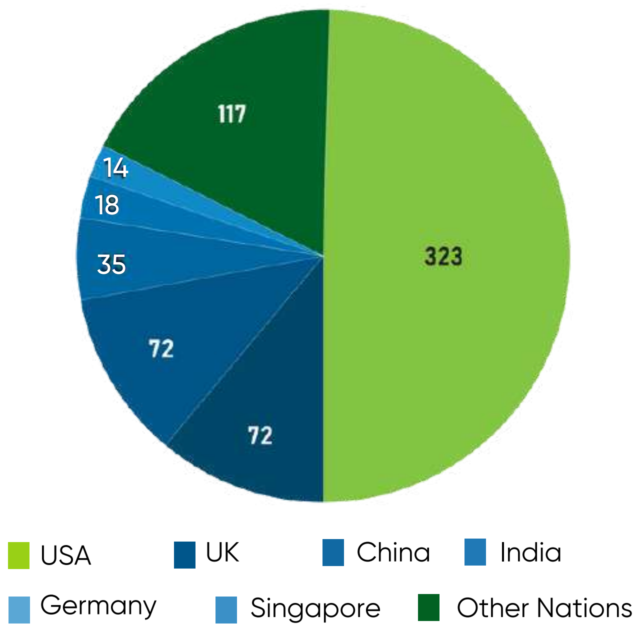
India is showing signs of resilient growth in average income



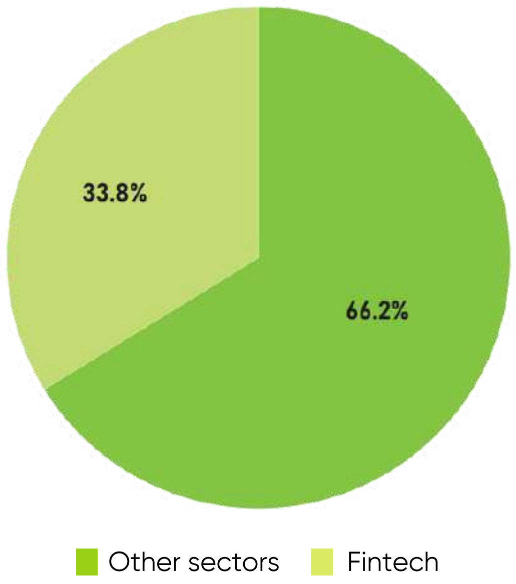
Source: World Bank, Jefferies, RBI, Varanium Research

Fintech Funding Landscape

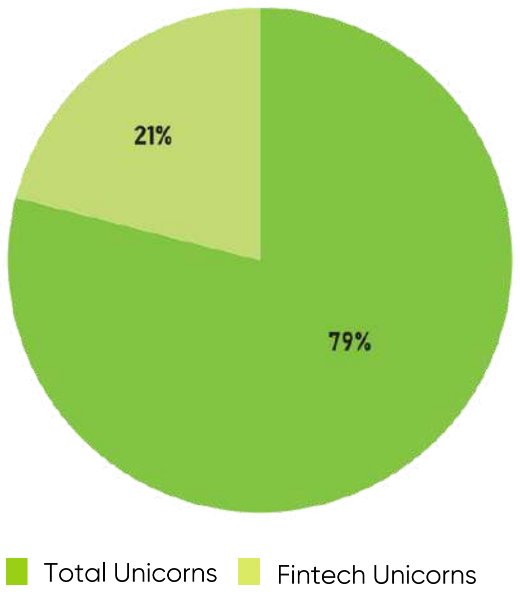
Global Fintech Funding - USD 651 Bn*



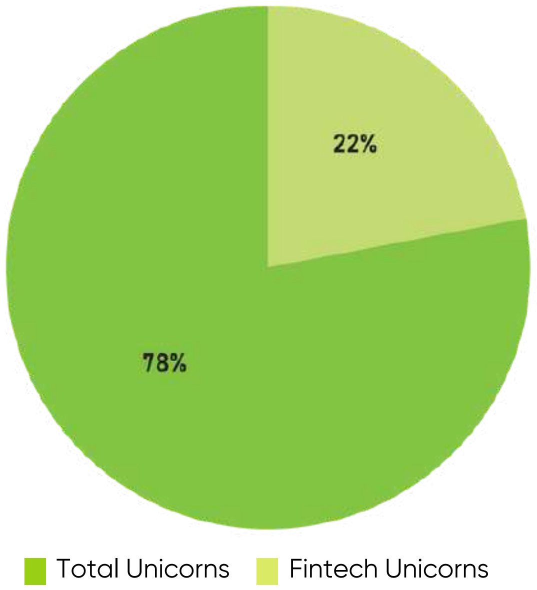
India has received a cumulative VC Funding of USD 87 Bn (2014-2021) **



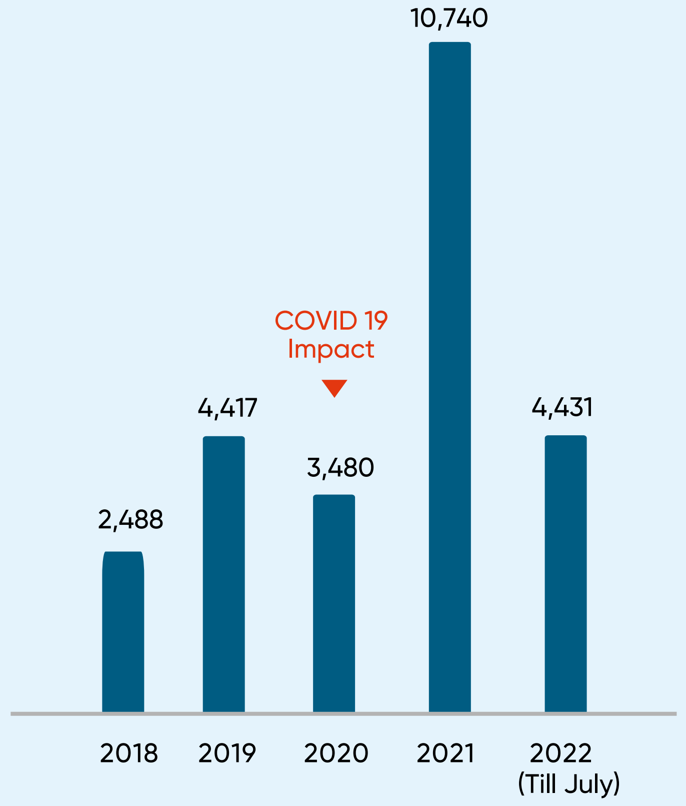
Share of Fintech Unciorns - Global



Share of Fintech Unciorns - India



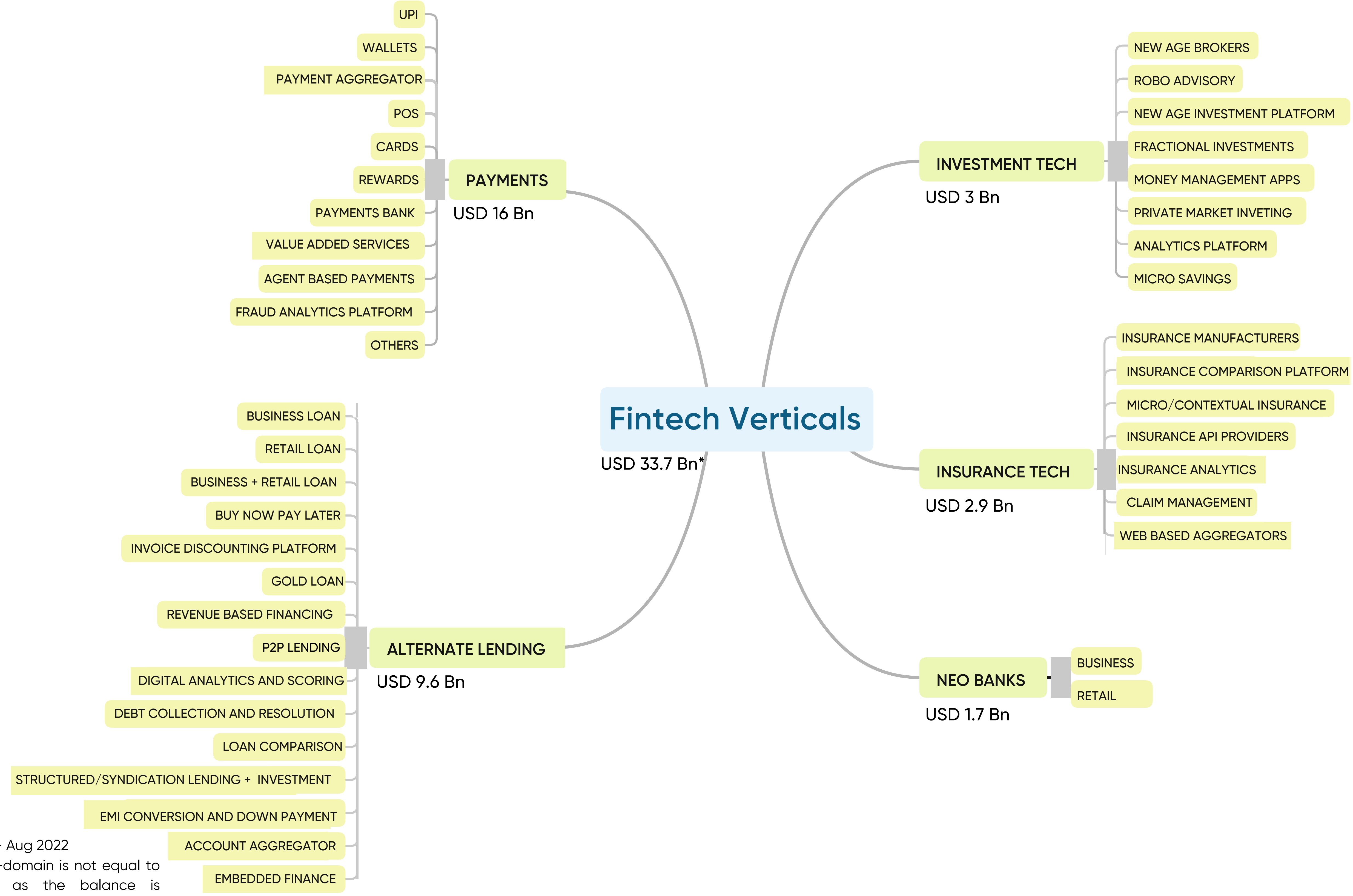
Indian Fintech Funding Y-o-Y
(in USD Mn)



*Period: Till July 2022 **Period: 2014 - July 2022

Note:
In the next slide, period is from 2014- Aug 2022

Source: CB Insights, Bain, Tracxn, Venture Intelligence



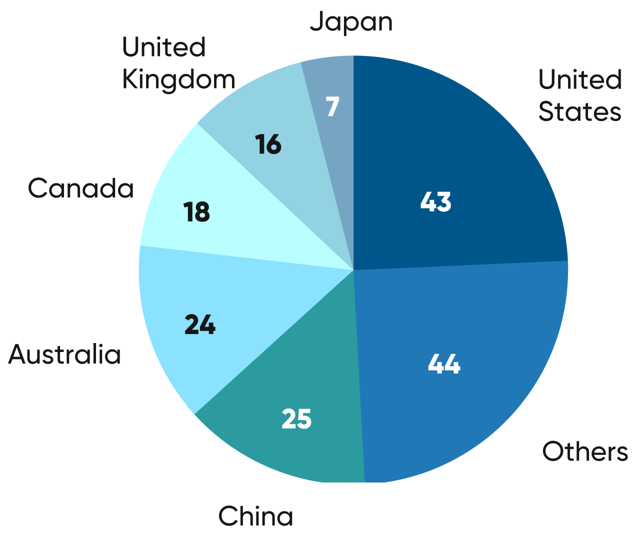
*Period from 2014- Aug 2022
Sum total of sub-domain is not equal to fintech verticals as the balance is towards the regtech and other verticals

Source: Tracxn, Varanium Research

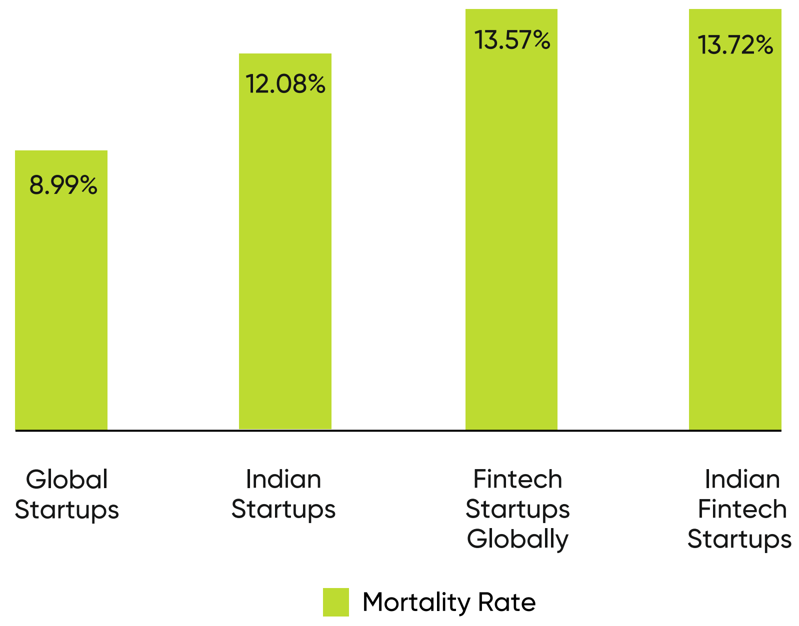
Exits and Mortality in Fintech Space

Fintech IPOs / Public Exits

There are 227 exits in Fintech either by way of acquisition or IPO



Globally fintech sector has relatively high mortality rate



On average globally IPO Market cap to total funding by PE/VC (received prior to IPO) is at 5x multiple.
Acquisitions on average gave around 4.5x returns on the total VC/PE funded amount.

Company	Founding Year	Listing Data	Total Funding before IPO	Issue Price	Listing Day Gain/loss	Valuation at Listing	Current Price	Current Mcap
Paytm	2009	18-Nov-21	USD 4.63bn	Rs. 2150	-27%	USD 19.9bn	Rs. 768 (Low 510)	USD 6.4bn
policybazaar.com	2008	15-Nov-21	USD 1.06bn	Rs. 980	23%	USD 6bn	Rs. 503 (Low 454)	USD 2.9bn
Fino Payments Bank	2022	11-Nov-21	USD 0.18bn	Rs. 577	-5%	USD 0.64bn	Rs. 255 (Low 210)	USD 0.2bn

Note: Godigit has filed DRHP with SEBI

The information is based on the startups founded during the last 15 years as per the Tracxn data.

What's new in Fintech in India?

Faster B2B Global Payments

- Traditional B2B global payments are time-consuming and costly.
- Using distributed ledger technology solutions like Visa B2B connect is changing the status quo.
- With wholesale Central Bank Digital Currency CBDC on the horizon and initiatives like m-CBDC bridge, in the future, both domestic and international payment will be instant and cheaper with CBDC.

Employee Benefits Center

- Employee Benefit Center (EBC) enables organic platforms like Batik and Advantage Club to combine employee engagement and financial wellness together.
- It allows for seamless distribution of lending, wealth, insurance, and tax planning products.

Emerging Fintech Themes

Beyond BNPL

- With the BNPL market getting overcrowded and risky, models like Hold Now Pay Later and Save Now Pay Later have emerged.
- Under Hold Now Pay Later, using UPI 2.0 feature (like ASBA), there is a lien marked on the Bank Account, but the amount is only debited after the credit period is over.
- In the case of SNPL, users plan their purchase in advance by identifing product and merchant.

Interoperable Rewards

- For many of us, various reward points are scattered.
- Across various rewards platforms and they are not interoperable.
- Platforms like Twidpay and Cipay are enabling consumers to consolidate their rewards and make them interoperable through multiple merchant partnerships.

Connected Banking

- Connected banking provides a platform for making payments to your vendors using the Corporate Internet Banking facility of the Bank and automate the reconciliation of your accounting entries which saves time, cost, and enhances your business efficiency.
- Connected banking brings disjoint systems like compliance, reconciliation, invoicing, expense management etc. together seamlessly.
- Majority Private Sector Banks have partnered with SME Neo Banks to grow their throughput.

Revenue Based Financing

- Revenue-based financing uses the power of APIs to integrate with various borrower systems to underwrite the loan effectively.
- There is no fixed amount of EMI as the collection is done as a percentage of revenue, and it can be directly collected through payment gateways.
- Revenue is upfront discounted (in the range of 5-8 percent).

Source: Varanium Research

Regulatory Timeline of Indian Fintech

2008
- Payment & Settlement System Act 2007

2009
- National Payments Corporation of India incorporated
- Unique Identification Entity of India established

2010
- National Financial switch taken over by NPCI

2011
- Aadhar launched
- Immediate Payment Service launched

2012
- Payment systems vision document 2012-2015

2013
- Launch of Direct Benefit Transfer program

2014
- Jan Dhan Yojana, Aadhaar and Mobile number trinity stack launched

2015
- Centralised KYC
- Digital India Campaign
- Small finance Bank
- licenses issued
- Standup India

2016
- Startup India Action Plan
- UPI launched
- Bharat Bill Payment Operating Units authorized

2018
- Payment systems vision

2019
- Regulatory Sandbox Framework

2020
- Payment Aggregator/ Payment Gateway License Card
- Tokenization

2022
- Digital Lending Guidelines
- Digital Banking Units
- Restrictions on loading credit lines on non-bank PPI

Source : Varanium Research

Regulatory Sandbox

RS allows the regulator, the innovators, the financial service providers, and the customers to conduct field tests to collect evidence on the benefits and risks of new financial innovations while carefully monitoring and containing their risks.

RS is, at its core, a formal regulatory program for market participants to test new products, services, or business models with customers in a live environment, subject to certain safeguards and oversight.

RS usually refers to live testing of new products or services in a controlled/test regulatory environment for which regulators may/may not permit certain regulatory relaxations for the limited purpose of the testing.

The RS aims to foster responsible innovation in financial services, promote effciency and bring benefit to consumers.

RBI

RBI has announced 5 cohorts and recently allowed the 'On Tap' application facility for themes of closed cohorts.

Cross Border Payments	(Completed Test Phase)
Onine Retail Payments	(Completed Test Phase)
MSME Lending	(Ongoing Test Phase)
Prevention and Mitigation of Financial Frauds	(Test Phase not yet commenced)
Theme Neutral - Innovative products/ services/ technologies cutting across various functions in RBI's regulatory domain would be eligible to apply	(Ongoing)

IRDA

IRDA has announced 3 cohorts. Under the 1st cohort, 173 applications were filed and under the 2nd cohort, 185 applications were received.

First (Tranche 1)	Health - NonLife - Distribution Development
First (Tranche2)	Health - NonLife
First (Tranche3)	NonLife - Life - Intermediaries/ Distribution Development-Health Department
Second	NonLife - Life - Intermediaries / Distribution Development- Health Department
Third	Not yet commenced

Applications covered concepts such as wellness, wearables, group insurance, usage-based insurance, loyalty/ rewards programmes, electronic platforms, KYC onboarding, distribution, products, etc.

SEBI, IFSCA & PFRDA's Cohort data is not available in Public domain

Source : Varanium Research, RBI, IRDA, SEBI

Global Regulatory Sandbox Benchmarking

		SINGAPORE	UK	HONG KONG	MALAYSIA	UAE	BAHRAIN	INDIA
Eligibility to Participate	Open to 'passporting' - access to foreign players	✓	✓	✓	✓	✗	✓	✗
	Sandbox traditionally focused on both startups & incumbents (vs only startups)	✓	✓	✓	✗	✗	✗	✓
	Need of up-front License before entering the sandbox	✗	✓	✓	✓	✓	✗	✓
Sandbox Process	Different types of Sandbox (Sandbox Express, Scalebox etc.)	✓	✓	✗	✗	✓	✗	✗
	Applications & enrolment throughout the year (rather than slot-based applications)	✓	✓	✓	✓	✗	✓	✗
	Maximum Sandbox journey duration	12m	6m	Variable	12m	6-12m	12m	6m
	Maximum Extension beyond Duration of Sandbox	1m	Variable	Variable	Variable	Upto 12m	Variable	Variable
Evaluation	Fintech Division as a decision-making authority	✗	✓	✗	✗	✗	✗	✓
	Evaluation based on innovation only (vs Innovation + Business case consideration)	✓	✗	✓	✗	✗	✓	✗
	Exit feedback is formal & structured (vs feedback at regular intervals & informal/ unstructured exit feedback)	✗	✗	✗	✓	✓	✓	✗

Best practices which India can adopt

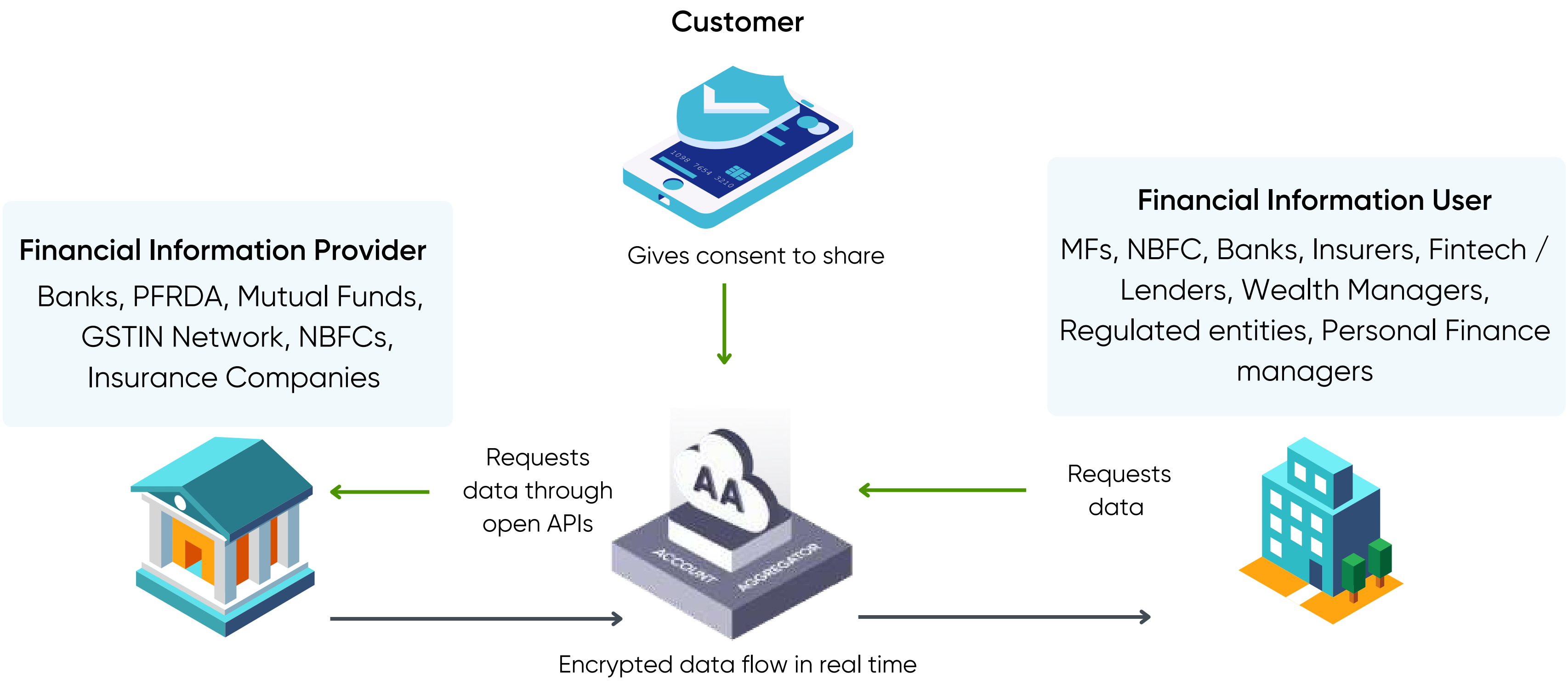
1. Viability" from RBI framework evaluation criteria assumed as Business case criteria
2. Assumed as no mention of exit feedback in RBI framework

Source: Central Banks, Press search, RBI Framework

India Stack 2.0

Account Aggregator

AA Ecosystem	Sep-21	Mar- 22	Jun-22
No. of consents processed	13,000	180,000	12,50,000
No. of handles created	10,000	100,000	700,000
FIPs onboarded	4	9	9
AA operating license	4	5	6



Overview

RBI regulated entity (with an NBFC-AA license) that helps individuals/ corporates securely and digitally access and share financial information (Bank accounts, GST, Insurance, Investment, etc.) from one financial institution to other regulated financial institution in the AA network.

What it will bring

- Temper-proof data ingestion, ease of integration, and aggregation.
- Provides infrastructure for greater financial inclusion.
- Better Data Privacy & Control for user's financial data.

Potential Impact

- Reduction in cost of processing loans.
- It will reduce time and increase accuracy by doing straight-through processing of data.
- Account monitoring access will allow for real-time early warning systems.
- It will allow the creation of more customized Personal and automated Finance Management tools, which can include expense analysis, easy accounting, and investment recommendation.

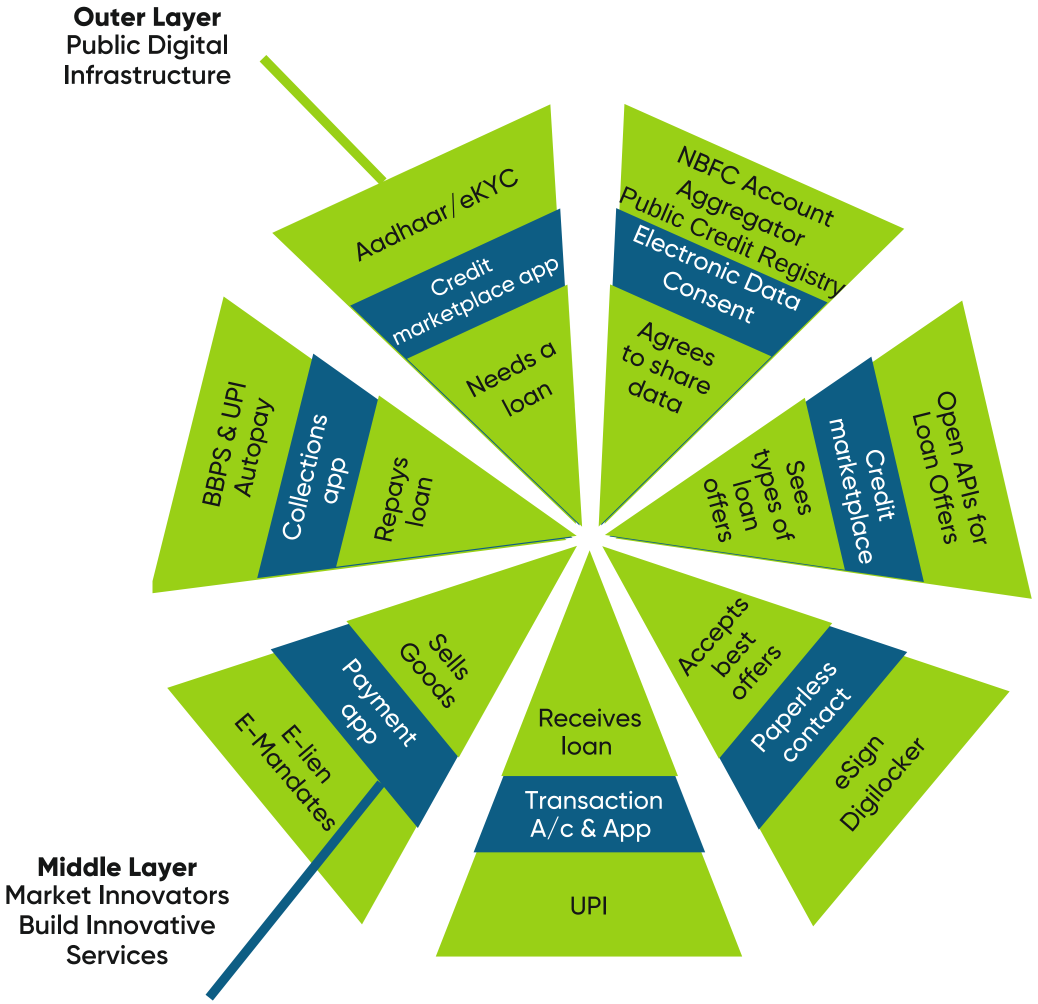
Source: Varanium Research

Comparison of AA and equivalent Global Models

	INDIA	CHINA	AUSTRALIA	SINGAPORE	KOREA
Centralized sharing of customer data	Account Aggregator (AA)	❌	Pursuant of Customer Data Right and Open Banking Regs	Singapore Financial Data Exchange (SEDX)	My Data
Customer consent for data sharing	Mandatory	Routed through Licensed agency	Mandatory	Mandatory	Mandatory
Mandatory sharing of customer data by incumbent lenders to third party	Joining ecosystem is voluntary, but mandatory sharing of data	❌	Joining is voluntary	Joining voluntary, but mandatory sharing of data	Joining voluntary, but mandatory sharing of data
Fintech and other financial institutions partnership to share customer data	Can change under draft Data Protection Bill. Consultation paper favours data retention with regulated entities.	❌ Direct sharing of data with financial institutions banned	On accreditation from regulators	❌ Subject to Personal Data Protection Act	Banks seek to access to customer data from Fintechs

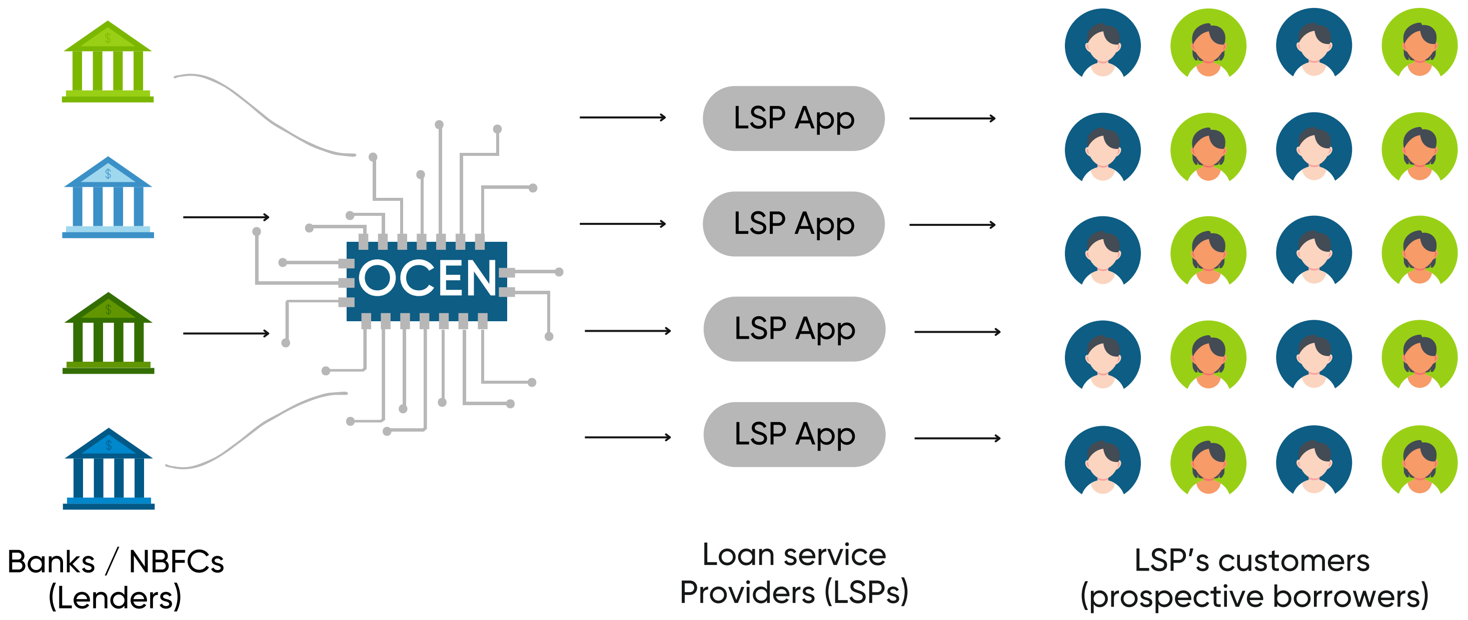
Source: Credit Suisse

OCEN: Accelerating access to affordable formal credit



A common language for lenders and marketplaces to build innovative, financial credit products at scale.

Open standards based network to accelerate access to affordable, formal credit



Overview

A credit protocol infrastructure. It is a strictly defined specs of APIs that act as a standardizing middle layer between lenders and digital platforms.

LSPs will act as an agent for customers (borrowers). LSPs will get best rates for their customers and earn commissions from customers.

What it will bring

- Easier identification of credit-worthy borrowers.
- Reduces borrower cost of acquisition.
- Eliminates costly and time-consuming custom integrations and manual processes.
- Reduces TAT for disbursing loans.
- Will enable complete lending value chain skills under one entity.

Potential Impact

- Faster TAT with reduced loan origination cost and underwriting for small value loans with a fully integrated ecosystem.
- It will promote financial inclusion and bridge the credit gap.
- It will open up new avenues for cashflow-based lending.

Source: Varanium Research

Public Credit Registry:
Trusted repository of traditional and alternative data for underwriting

Core Credit Information
(Mandatory Reporting)

Banks/NBFCs/Regulated FIs (such as domestic borrowings, ECBs and all contingent liabilities)

Secondary Information Base

CERSAI sub system
Securitized Asset details, all equitable mortgages

Legal Database sub system
Litigation against debtors / promoters

Fraud database sub system
RBI Wilful defaulter List, RBI Caution List, CFR, ECGC etc.

GSTN Network sub system
GST Details

IBBI sub system
IBBI Listing Status

MCA sub system
Company ID Details, Financial Details etc.

SEBI sub system
Promoters, Shareholdings, Market borrowings

Tax | Utility:
Payment cycles, Arrears

Information Utilities
Legal evidence holding information of any debt/ claim, as submitted by financial/ operational creditor

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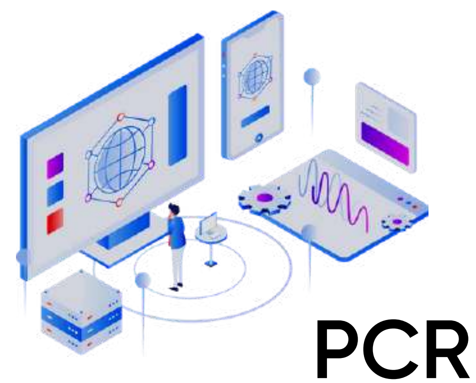


PCR

Data Beneficiaries
RBI
IU(s)
CICs
Creditors
Borrowers
Other Regulators

Public Credit Registry (PCR) is an centralised information repository which unifies holistic information about existing as well as new borrowers from multiple data sources.

Will include both corporate as well as retail borrowers.

PCR will overcome the existing limitations:

01 Lack of Comprehensive Data

02 Fragmented Information

03 Time-lag, Dated Information and Cost

04 Multiple Reporting

Overview

A centralized repository containing information where all information about existing as well as new borrowers is stored. The registry will pull the data from sources such as SEBI, GSTN, IBBI, Ministry of Corporate A airs, CERSAI etc to provide a 360-degree view of the borrower.

What it will bring

- Information symmetry and better credit underwriting
- Better information on borrowers credit history will help lenders avoid the risky borrowers, and thereby manage their asset quality better.

Potential Impact

- Will become trusted repository of alternative data for credit underwriting
- Reduce the cost of loan processing as challenges to both interoperability, data-triangulation and conversion of the data into a standardized format.
- Better interest rates for good borrowers.

Source: RBI, Varanium Research

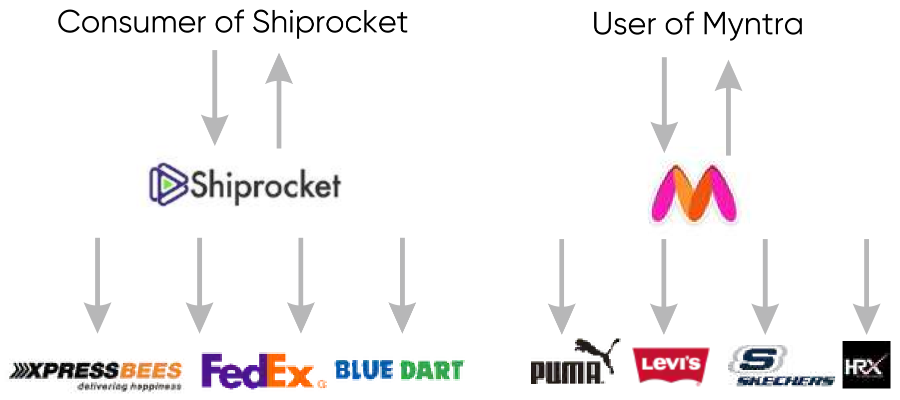
Global Comparison of PCR

	Minimum exposure reported to PCR	Reporting Entities	Notable Exclusions	Covered Entities	Demographic/ Incorporation Data Captured	Details of Credit contract (Individual)	Details of Credit contract (Bank)	Credit Repayment Behavior captured?	Frequency of reporting by Covered Institutions	Allowed to generate gift cards?	Accessible by borrower?
Germany	EUR 1 million	All Financial Institutions	-	Individuals & Commercial Entities	Yes	Yes	Yes	Yes	Quarterly	Unclear	Yes
Brazil	BRL 200	All Financial Institutions and other Select Lenders	-	Individuals & Commercial Entities	Yes	Yes	Yes	Yes	Monthly	No	Yes
Phillippines	All Debts must be recorded	All Financial Institutions	Microfinance Providers	Individuals & Commercial Entities	Yes	Yes	Yes	Yes	Monthly	No	Yes
European Union	EUR 25,000	All Financial Institutions in Eurozone	-	Commercial Entities	Yes	Yes	Yes	Yes	Decided by National Central Banks	Unclear	No
Ireland	EUR 500	All Institutions including Money Lenders	-	Individuals & Commercial Entities	Yes	Yes	Yes	Yes	Monthly	Yes	Yes

Source: Dvara, Varanium Research

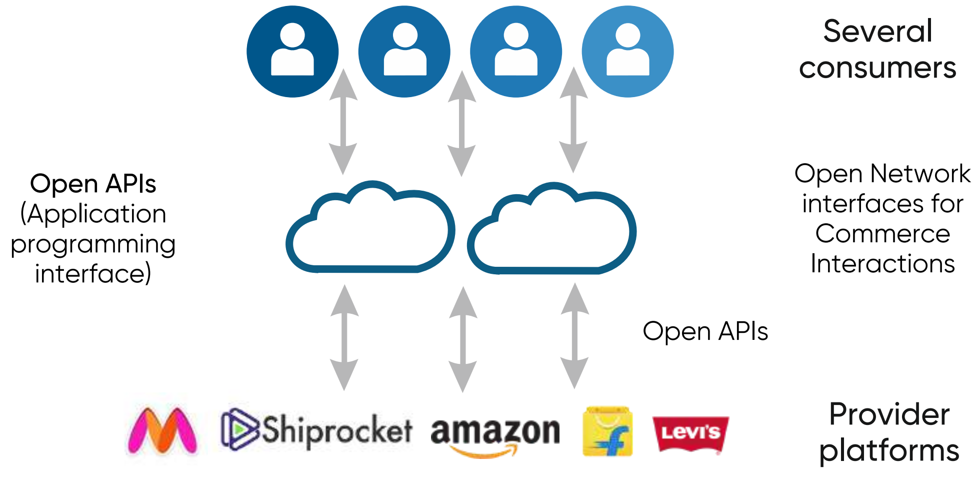
ONDC: Network of Marketplaces

Existing: Platform-Centric Model



In the current platform-centric digital commerce model, buyers and sellers must use the same platform/ application to do a business transaction

Future: Open Network Model



In ONDC's network-centric model, buyers and sellers can transact no matter what platform/ application they use hrough an open network

Overview

ONDC is a freely accessible government-backed platform that aims to democratize e-commerce by moving it from a platform-centric model to an open network for buying and selling of goods and services. It aims to enable consumers to buy products from all participating e-commerce platforms through a single platform. It is an initiative of the Department for Promotion of Industry and Internal Trade (DPIT) under the Ministry of Commerce and Industry.

What it will bring

- Increase e-commerce penetration in India.
- Democratize the country's digital commerce (e-commerce) and provide alternatives to private e-commerce sites.
- Will give the government more control over what is sold and bought.

Potential Impact

- It will promote product discovery, increase the number of alternatives and broaden customer reach.
- Since the experience layer (UI/UX) is independent of the network, there will be new startups that will aim to provide better features like price comparison, product unboxing, user review analytics, etc.
- Establish seamless integration across the supply chain
- It will be difficult to reconfigure for leading e-commerce businesses, requiring a total overhaul of their systems and the loss of advantages such as control over the user experience and consumer behavior information.

Source: Varanium Research

Ayushman Bharat Digital Mission

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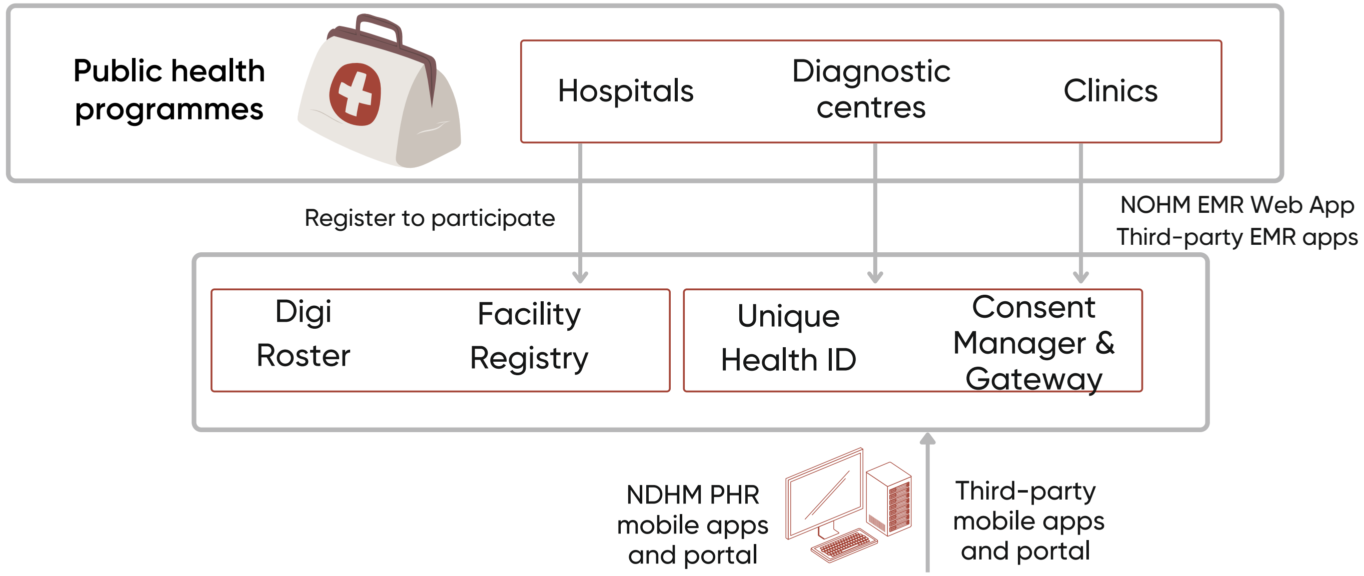
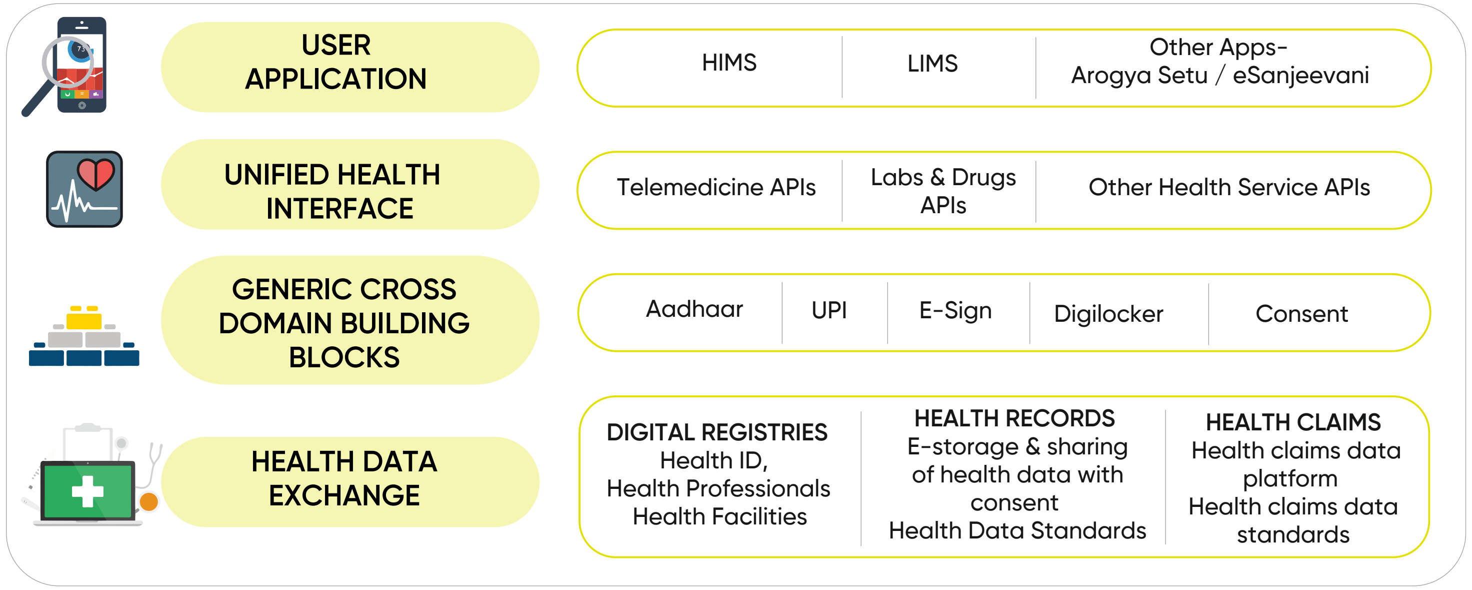
ABHA: New Revolution in Healthfin

Proposed health information flow

NDHM proposes a flow of healthcare records across private and public health platforms via applications built by the government + third parties





Overview

The aim is to create a master health data of the nation where every citizen will be assigned a unique digital health id (ABHA id) against which all their health records i.e. medical reports, lab reports, diagnosis reports, medical history and treatment, lab reports will be mapped.

What it will bring

- Will enable real-time sharing of medical records with hospitals, clinics, and insurance providers.
- Bring a holistic view combining information on multiple health initiatives and feed into smart policymaking, for instance, through improved predictive analytics.
- Availability of health data for medical research, critical for advancing our understanding of human health.
- Will bridge the existing gap amongst different stakeholders of the healthcare ecosystem through digital highways.

Potential Impact

- New innovative business models can be launched.
- Will significantly bring down the costs of health protection.
- Will enable better customer underwriting for insurance companies.
- National health stack at scale can unlock significant potential for insurers, customers and providers with better experience, better products, lower costs (frauds) and can transform reach of retail health. InsurTechs will have a significant opportunity to utilize the platform for creating innovations and integrating with the insurers

Source: Varanium Research

CBDC: A New Chapter in Fiat Currency

A Central Bank Digital Currency (CBDC) is the digital form of a country's fiat currency. Like fiat currency, it is also a claim on the central bank, but instead of printing money, the central bank issues electronic coins or accounts backed by the full faith and credit of the government and economic activity.

Benefits

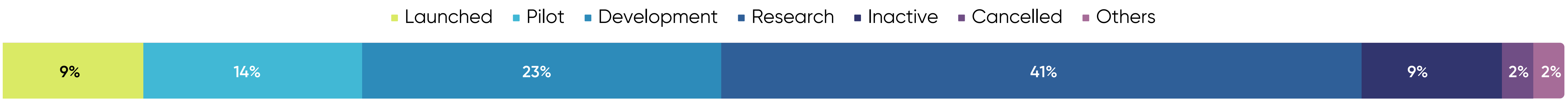
- Supporting a resilient payments landscape, no counterfeiting is possible.
- Avoiding the risks of new forms of private money creation.
- Supporting competition, efficiency, and innovation in payments.
- Meeting future payment needs in a digital economy by creating programmable money
- Improving the availability and usability of central bank money
- Making monetary and fiscal policy more effective.
- Addressing the consequences of a decline in cash.
- Building block for better cross-border instant payments.

CBDC

Challenges

- Privacy risks due to potential tracking.
- Too much control: the government can direct where and how much to spend.
- Operational risks and security vulnerabilities.
- More power in the hands of dictator and authoritarian governments by allowing them to put punitive sanctions again opposition.

Where the 109 Countries Stand on CBDC Progress in May 2022



Source: Bank of England, Atlantic Council

CBDC Architectures: an overview of potential retail CBDC architectures

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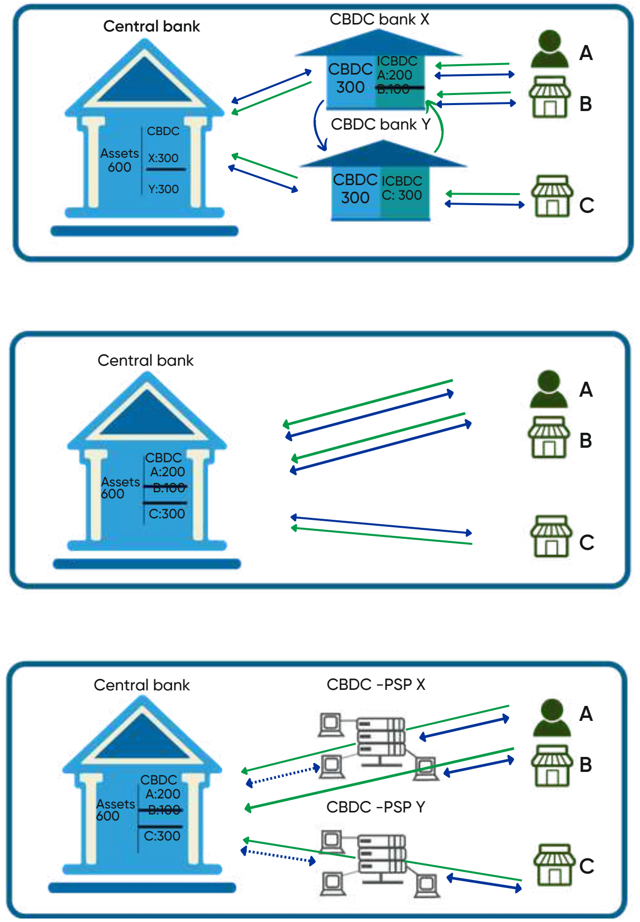
Indirect CBDC (synthetic two tier/ multi-cell)



- ICBDC is claim on an Intermediary
- Intermediaries onboard (KYC) and handle retail
- payments
- The central bank handles wholesale payments

Direct CBDC- (digital banknotes/ central bank accounts/ single-cell/ central bank cryptocurrency)

- CBDC is a claim on the central bank
- Intermediaries or central bank onboard (KYC)
- Central bank handles retail payments

Hybrid CBDC

- CBDC is a claim on the central bank
- Intermediaries onboard (KYC) and handle retail
- payments
- Central bank periodically records retail balances

Legal claim Communication during payment — Real-time — Deferred

Person (if account-based) or pseudonym (if token-based) — Merchant

- 10 countries have fully launched a digital currency, with China's pilot set to expand in 2023.
- 105 countries, representing over 95% of global GDP, are exploring a CBDC. In May 2020, only 35 countries were considering a CBDC.
- 19 G20 countries are exploring a CBDC, with 16 already in the development or pilot stage. This includes South Korea, Japan, India, and Russia.
- Many countries are exploring alternative international payment systems. There are 9 cross border wholesale (bank-to-bank) CBDC tests and 3 cross-border retail projects.

Source: BIS

CBDC across the world

Country (Project name)	China (DP/EP)	Sweden (e-krona)	The Bahamas (Sand Dollar)	Eastern Caribbean Currency Union (DXCD)	Marshall Islands (SOV)
Main motivation	Monetary sovereignty, Internationalisation	Declining use of cash, financial stability	Payment effciency, financial inclusion	Resilient payment system, financial inclusion	Financial inclusion, seigniorage
Interest bearing	✗	✗ [a]	✗	✗	✓ [b]
Limits on Holding & Transactions	✗	✗	✓	✓	✗
Offline usability	✓	NA	✓	✗	✗
International Access	✓	✓	✗	✗ [d]	✓
Techonology	NA	(DLT) [e]	(DLT) [f]	DLT	DLT

a Not finally decided yet, but probably not interest-bearing as the initial focus of the pilot is on non-interest-bearing e-krona.

b The SOV will be indirectly interest-bearing as monetary supply increase will be mostly allocated to SOV holders (75%)
c Although cross-border payments are announced, capital controls might limit them.
d The Eastern Caribbean Dollar is subject to capital controls that will likely also hold for the DXCD.

e The e-krona prototype uses DLT. The technological choice for the final CBDC-if indeed continuing with CBDC - has not been finally decided yet.
f It has not been officially confirmed that the Sand Dollar utilizes DLT. However, the technological focus of the technology provider argues for using DLT. Except for Sweden, all countries will enable CBDC access without a bank account. The mentioned central banks aim to include banks (and partly other firms) as intermediaries for distributing minted CBDC units (two-tiered operating structure).

Source: Jonas Gross Medium

India Stack: Status So Far

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AADHAAR

- 1.34 Billion Enrollments
- 74 Billion e-Authentications done
- Led to saving of USD 30 Billion in welfare schemes

UPI

- 323 Banks live on UPI
- 99 Billion Digital Payment Transactions
- USD 2.26 Trillion worth of Transactions

Co-WIN
Winning Over Covid-19

- Helped administration of 2000+ Million Covid Vaccination Doses
- 1.1+ Billion Registrations
- Handled peak of 2.5 Billion API Hits

DigiLocker

- 5.1 Billion Issued Documents
- 112 Million Users
- 570+ Types of documents

Aarogya Setu

- 217 Million downloads
- 860 Million Samples tested for COVID
- Facilitates self-assessment in 11 different languages

DIKSHA

- 7,431 Courses are available
- 151 Million Enrollments
- 124 Million Completed Courses

UMANG

- 1556 Government services available
- 291 Departments onboarded from Central & State Departments
- 75 Billion Transactions done by 45 Million registered users

eSanjeevani™
An integrated telemedicine solution

- Established 12K Hubs and 92K Health & Wellness Centres as Spokes
- 2 Million Providers onboarded
- 46 Million Patients served

GeM
Government eMarketplace

- 60,767 Government Buyer Organisations
- 6 Million Sellers and Service Providers live

API Setu

- 1,661 APIs live
- 850 APIs from Central and State Governments
- 900+ User Organisations

eOffice
A DIGITAL WORKPLACE SOLUTION

- Implemented in 772 organizations with 890,000 users
- Facilitated 32 Million electronic files
- Facilitated 135 Million electronic receipts

Ayushman Bharat Digital Mission
E-HOSPITAL
Integrated: M1, M2, M3

- Implemented in 731 Hospitals
- Daily average patient visits: 1,75,000
- Daily average transactions: 4,50,000

Source: Indiastack.global

Economic Factors

Knowledge partner for this section: Quant Eco

The spectre of stagflation risk looms over the global economy

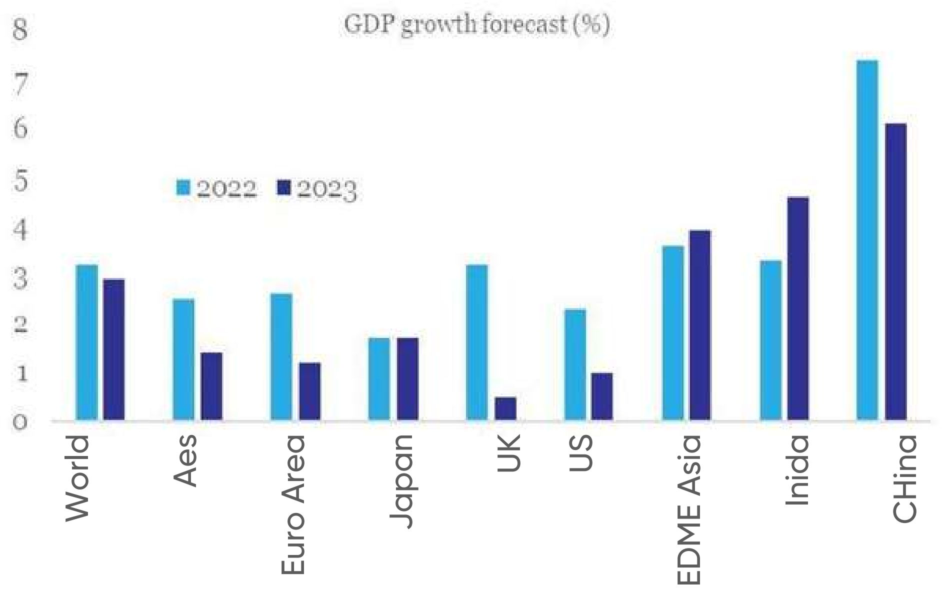
In his latest Jackson Hole address, Fed Chairman Powell commented, "Restoring price stability will likely require maintaining a restrictive policy stance for some time." Resilience in the US labor market is likely to have weighed in strongly in this assessment.

Aggressive monetary policy normalization (led by the US Fed), the persistence of commodity price shock (exacerbated by the Russia-Ukraine crisis), and COVID uncertainty could further strengthen downside risks.

Meanwhile, 100% of the countries following some form of inflation targeting saw a breach of the policy mandate in Apr-22

Even as the supply disruptions from COVID continue to persist, the Russia-Ukraine* crisis has imparted a shock to global commodity prices, with inflation in key inputs running at multi-decade high levels
Global supply chain disruption has worsened since the beginning of the pandemic on account of heightened geopolitical uncertainty

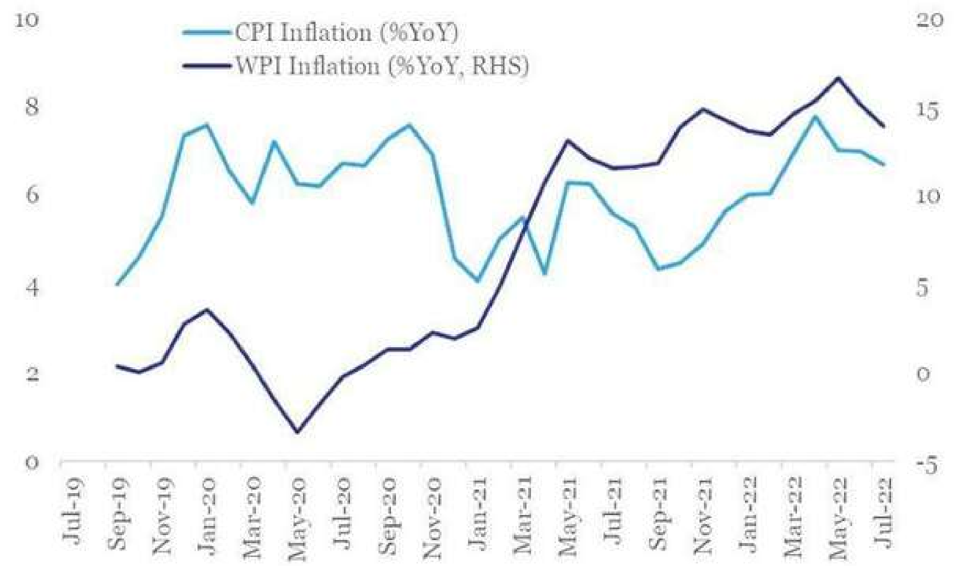
Recession remains a 'buzzword.'
Global growth is expected to slow down further in 2023.

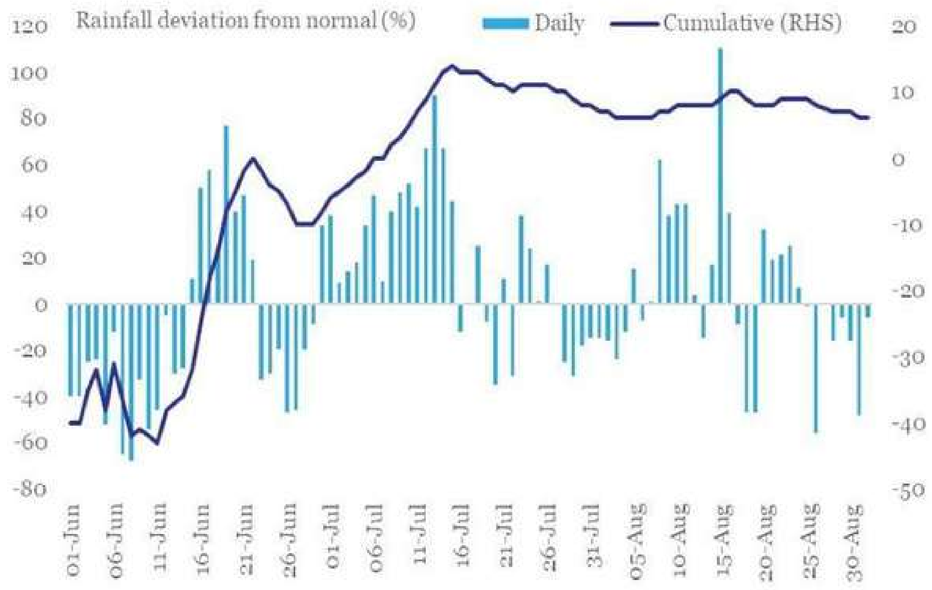


Annual price change across key commodity types (%)	Max	5Y Pre COVD Avg	2021	2022*
Energy	81.0	-4.0	81.0	83.3
Non Energy	56.0	-3.0	32.7	23.6
Food	75.2	-3.6	30.8	26.2
Fertilizers	258.1	-3.8	80.5	123.9
Base Metals	62.5	-0.7	46.8	27.1
Precious Metals	93.3	1.1	5.0	1.6

*Data on June 2022

Source: Quant Eco Research





India Story

- Both metrics of inflation – CPI and WPI moderated in Jul-22 on an annualized basis to offer a reprieve.
- CPI inflation moderated in Jul-22 to 6.71%Y-o-Y from 7.04% in Jun-22. The first below 7.0% print in four months and was broadly in line with market expectations.
- WPI inflation eased to the lowest in 5-months in Jul-22, coming at 13.93%Y-o-Y compared to 15.18% in Jun-22.
- Inflation will likely traverse a lower glide path, with deceleration looking more pronounced in H2. Nevertheless, for FY23, we estimate average CPI inflation at 6.5%

- Daily cumulative rainfall in surplus of 6% vs LPA (as of 1st Sep)
- But geographical unevenness in distribution and its impact on sowing is validated by our QuantEco Rainfall Index (QRI) that has been in a deficit through the season, currently at -4%
- Rice sowing in states such as West Bengal is down by nearly 12% this season, with overall sowing lower by 6% vs. last year
- The central government is planning to impose curbs on broken rice export as local prices have soared, as per media reports. (Broken rice account for almost 20% of India's shipments abroad)

Source: Quant Eco Research

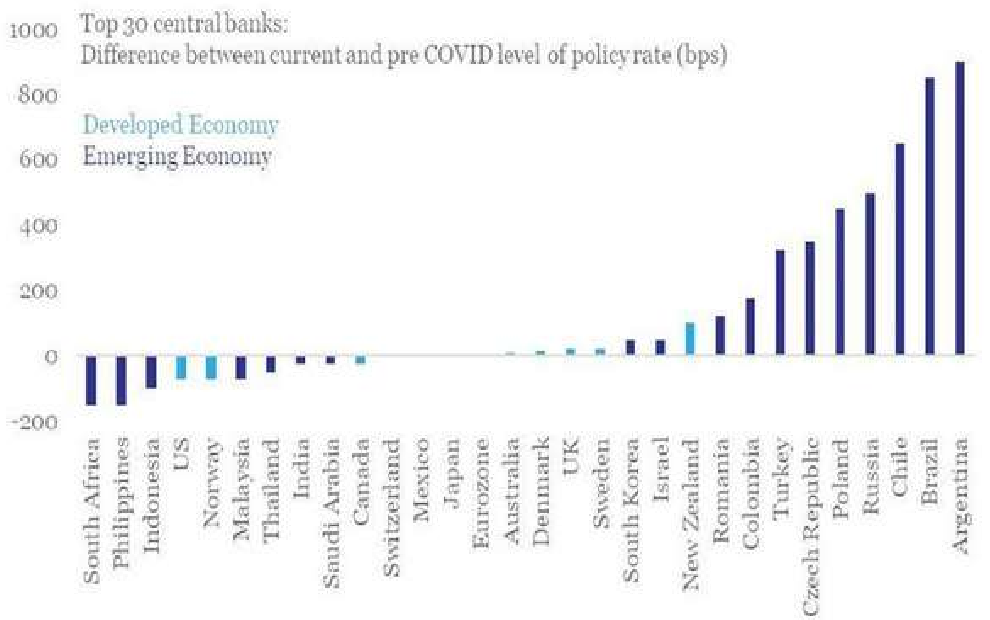
Meanwhile, normalization of global monetary policy has gained momentum and should see a stabilization of the rupee

Among key central banks tracked by the BIS who effected rate action in the pandemic period, currently:

- 6 have their monetary policy rate below their pre-pandemic levels (with the median at 75 bps below pre-pandemic level),
- 7 have their monetary policy rate at their pre-pandemic level,
- 14 have their monetary policy rate above their pre-pandemic levels (with the median at 288 bps above the pre-pandemic level).

The US Fed will likely emerge as the most hawkish DM central bank in 2022.

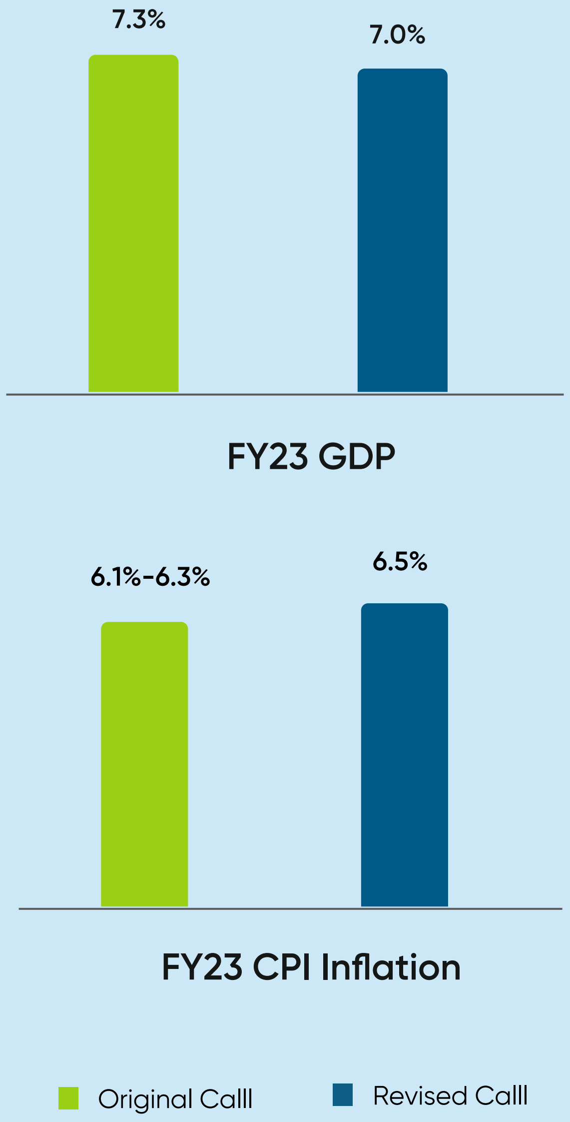
- On a monthly basis, INR is currently trading at its weakest level.
- INR has depreciated by 4.7% since the start of the Russia-Ukraine war.
- Despite massive moves in commodities and some of the EM currencies, INR appears to be well anchored.



Source: Quant Eco Research

India remains a bright spot in the global gloom

Prediction of key economic metrics



Despite this, the Indian Economy will be the fastest-growing large economy for a few years to come.

Country-wise relative ranking based on GDP

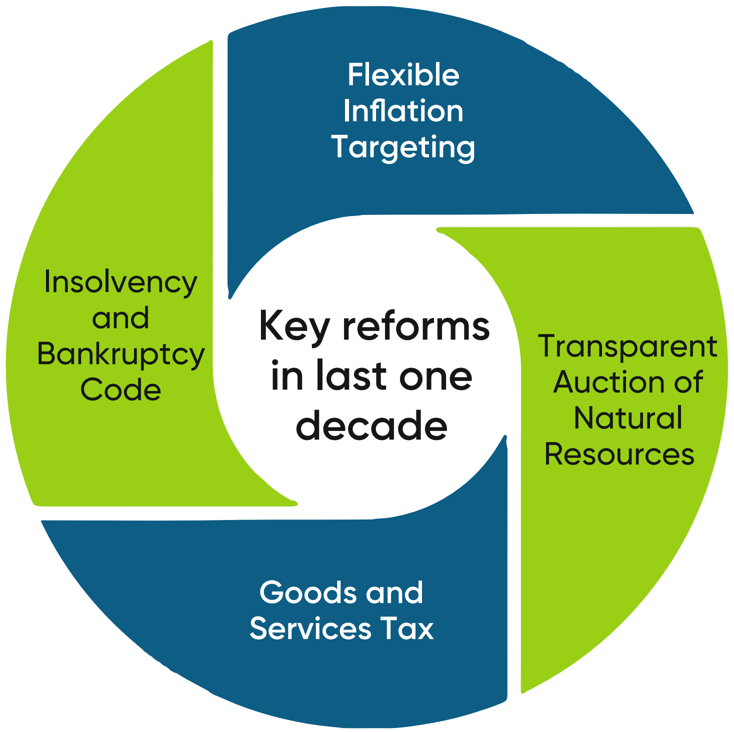
Ranking	1992	2002	2012	2022	2027
1	US	US	US	US	US
2	Japan	Japan	China	China	China
3	Germany	Germany	Japan	Japan	Japan
4	France	UK	Germany	Germany	
5	Italy	France	UK		Germany
6	UK	China	France	UK	UK
7	Spain	Italy	Brazil	France	France
8	Canada	Mexico	Russia	Canada	Canada
9	China	Canada	Italy	Italy	Italy
10	Mexico	Spain	Canada	Brazil	Brazil
11	Brazil	Korea		Russia	Korea
12	Netherlands		Australia	Korea	Australia
13	Korea	Brazil	Spain	Australia	Iran
14	Australia	Netherlands	Korea	Iran	Indonesia
15		Australia	Mexico	Spain	Spain

India climbing up the global rankings of large economies

Source: Quant Eco Research

...driven by macro drivers and changing regulations

4 key reforms that are changing India's investment potential

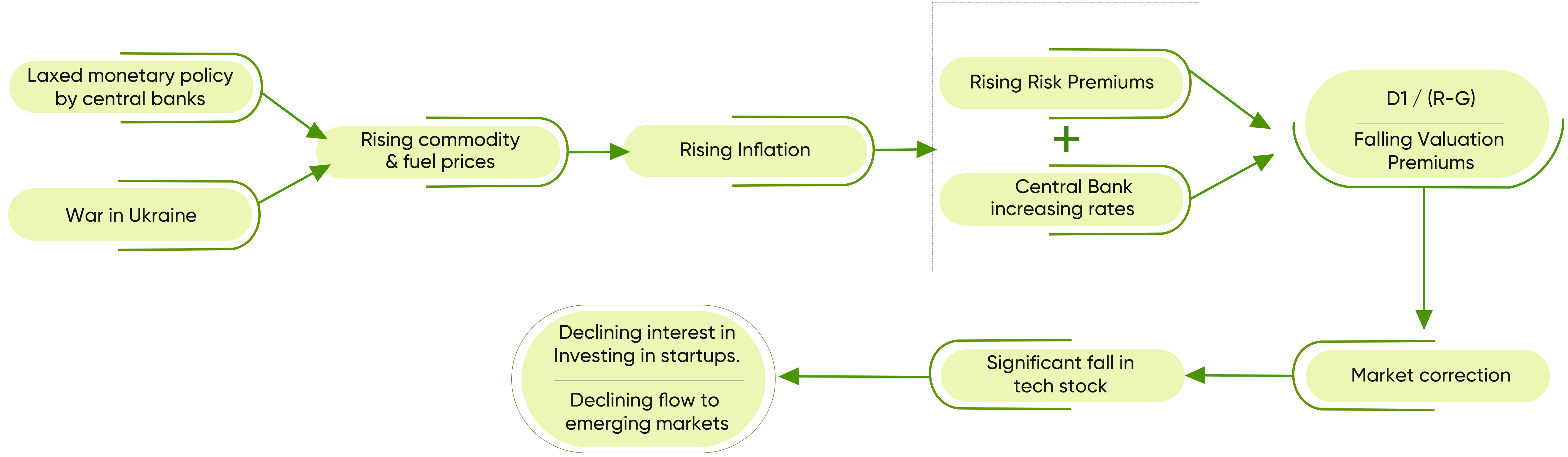


Decade of 2020 will see the impact of few tectonic shifts

- PLI Scheme
- New Labour Laws
- Focus on reviving MSMEs and Agri Exports
- National Infrastructure Pipeline
- National Logistics Policy
- Disinvestment Policy & National Monetization Plan
- Digitization & Ease of Doing Business
- Bad Bank and National Asset Reconstruction Plan

Source: Quant Eco Research

How Economics links to start-up valuation



Global investors use Gordon Growth Models for valuation of stocks

$$\frac{D1}{R-G}$$

- D1: Next year's earnings (dividend)
- R is the Risk-adjusted rate, and
- G is the long-term growth rate

Impact of Rising Rates on Market multiples: with D1 remaining the same and R being 4.62%* rising to 6.87% post rate hikes and growth being 1% falling to 0.5%

Pre-crisis:

$$\frac{D1}{4.62 - 1} = \sim 27.6x$$

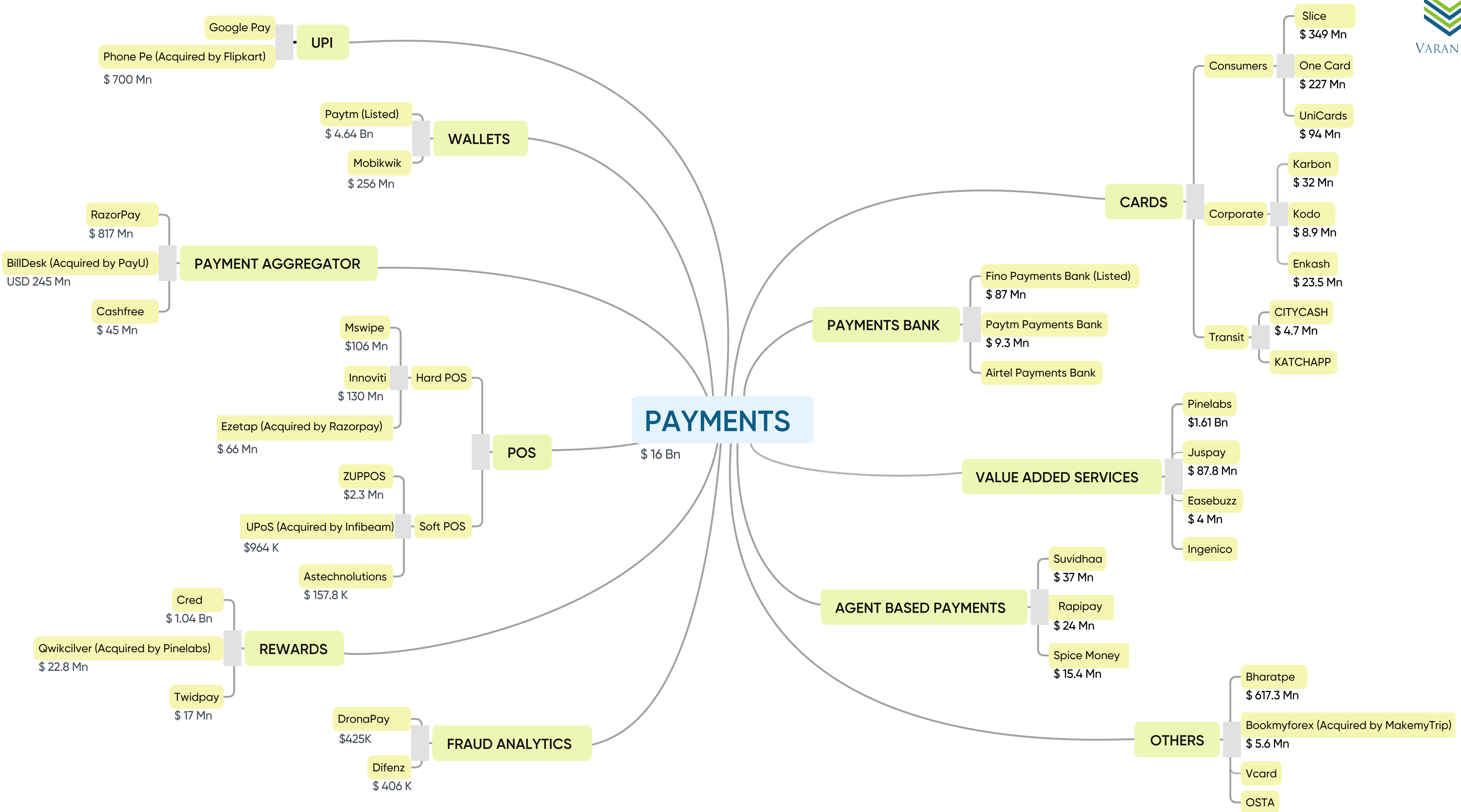
Post-crisis:

$$\frac{D1}{6.87 - 0.5} = \sim 15.7x$$

~ 40% market decline

**Source: Prof. Damodaran's website, Varanium Research*

Payments



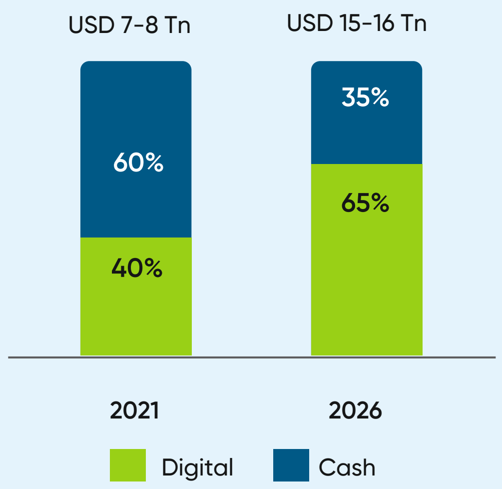
Source: Tracxn, Varanium Research

Indian Payment Landscape

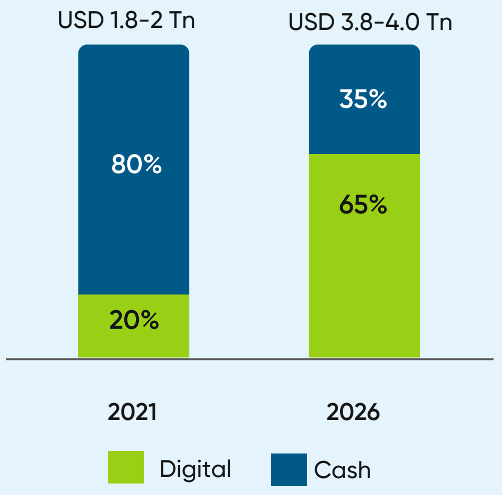
Merchant Payments to be Major Driver of Digital Payments by 2026

65% of overall payments to be digital by 2026

Total payments (USD Tn)

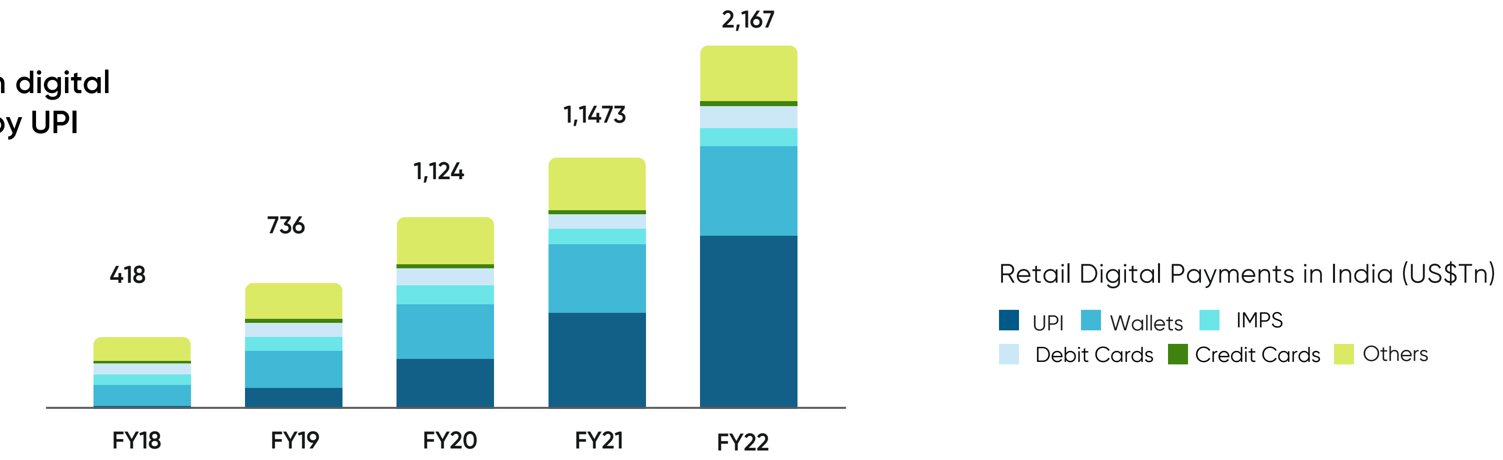


Digital merchant payments will be 65% by 2026

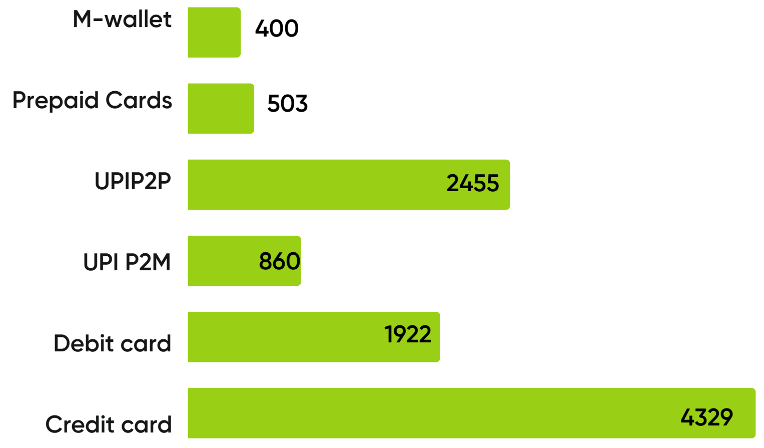


RBI's 2025 payment vision targets a 3X growth in digital payments transactions, and the value of digital payments turnover to be 8X vs GDP, with a fundamental reduction of cash in circulation.

India is annualizing over US$2tn in digital retail payments, with growth led by UPI



Average Ticket Size (INR)

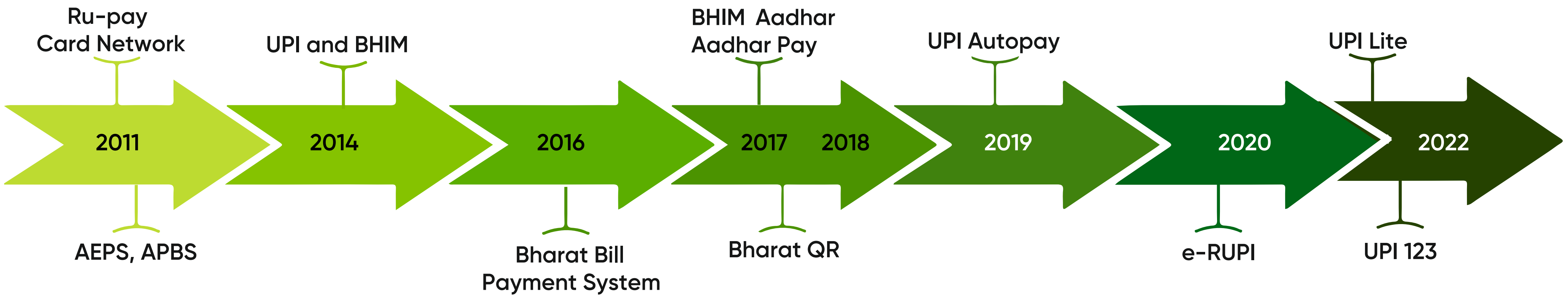


UPI has been a big disrupter in the Indian Payments landscape. The next wave of disruption is expected to come from the rapid explosion of digital merchant payments (as 75% of merchants are now covered via QR) and through greater penetration & UPI enablement of credit cards.

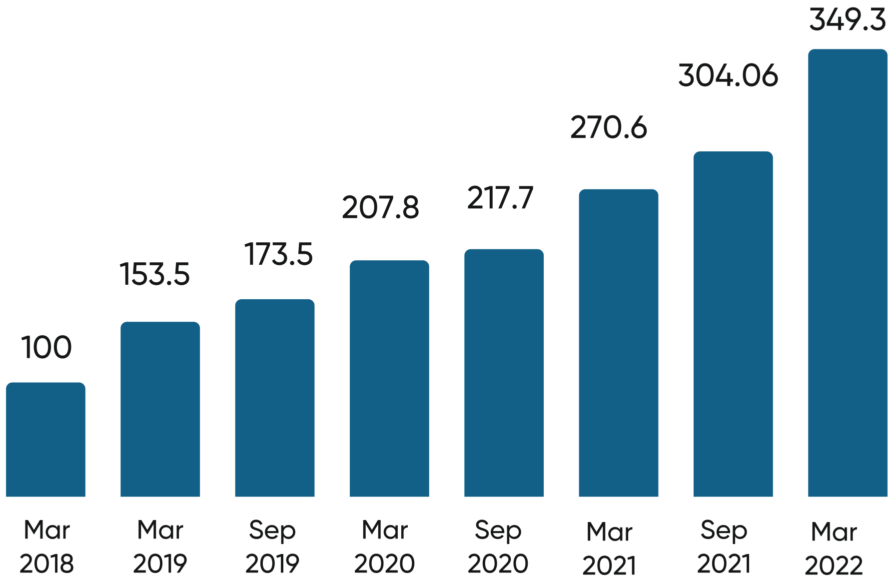
Source: RBI, Jefferies (FY22 numbers annualized basis Aug-21 data Others includes AePS, ABPS, NACH, NETC etc.)

BCG and PhonePe analysis. Includes non-digital paper instruments; Values exclude financial services, B2B payments for large corporates, G2B and G2G

India's Payment Landscape



The RBI-DPI index has demonstrated significant growth representing the rapid adoption and deepening of digital payments.



The RBI-DPI comprises of 5 broad parameters that enable the measurement of penetration of digital payments in the country. These parameters are:

1. Payment Enablers (25%)
2. Payment Infrastructure – Demand-side factors (10%)
3. Payment Infrastructure – Supply-side factors (15%)
4. Payment Performance (45%)
5. Consumer Centricity (5%)

Source: RBI

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Economics of Payments

Issuers → Network ← Acquirers

Products	Issuers	Networks	Acquirers
Credit cards	0.85% - 0.95%	0.50 - 0.55%	0.25% - 0.35%
Debit cards	0.35%	0.40%	0.15%
UPI	Cashback from Govt	Transaction-based fee - NA	NIL
IMPS	NIL	Rs. 0.23-3.05 (NPCI circular)	NIL
NEFT	NIL	NIL; Payment routed through RBI	NIL
RTGS	NIL; RBI circular	NIL; Payment routed through RBI	NIL
NACH	NIL; RBI circular	NIL; Payment routed through RBI	NIL
Wallets	1.2 - 1.30%	NA	0.20% - 0.30%
Net banking	NIL; RBI circular	NIL; Payment routed through RBI	Lower of Rs.12-60 or 1% per transaction

Source: Varanium Research

Global benchmarking of fees/MDR on digital payments

	INDIA	CHINA	SINGAPORE	KOREA	AUSTRALIA	MALAYSIA
P2P Fee	NIL*	NA	NIL	NA	Varied with commercial arrangements	Upto RM5K: NIL >RM5K: 50 cents
P2M/ Corporate fees	NIL*	NA	S$0.2 to S$0.5 per tnx	NA		-0.5% (Chargeable by acquirer)
Credit cards	Consultation in progress 1.5-1.8%	0.45%	No cap	MDR Cap is based on merchant sales (ranges from 0.5% to 0.9%)	Cap: 0.5%	Interchange Cap: 0.675%
Debit cards	Rupay MDR NIL Other MDRS: 0.4-0.9%	Cap: Rmb 13/0.35%	No cap (subject to commercial agg)	No cap	Interchange Cap: 0.08%	Interchange Cap: 0.14%/ 0.21% (domestic/ international)

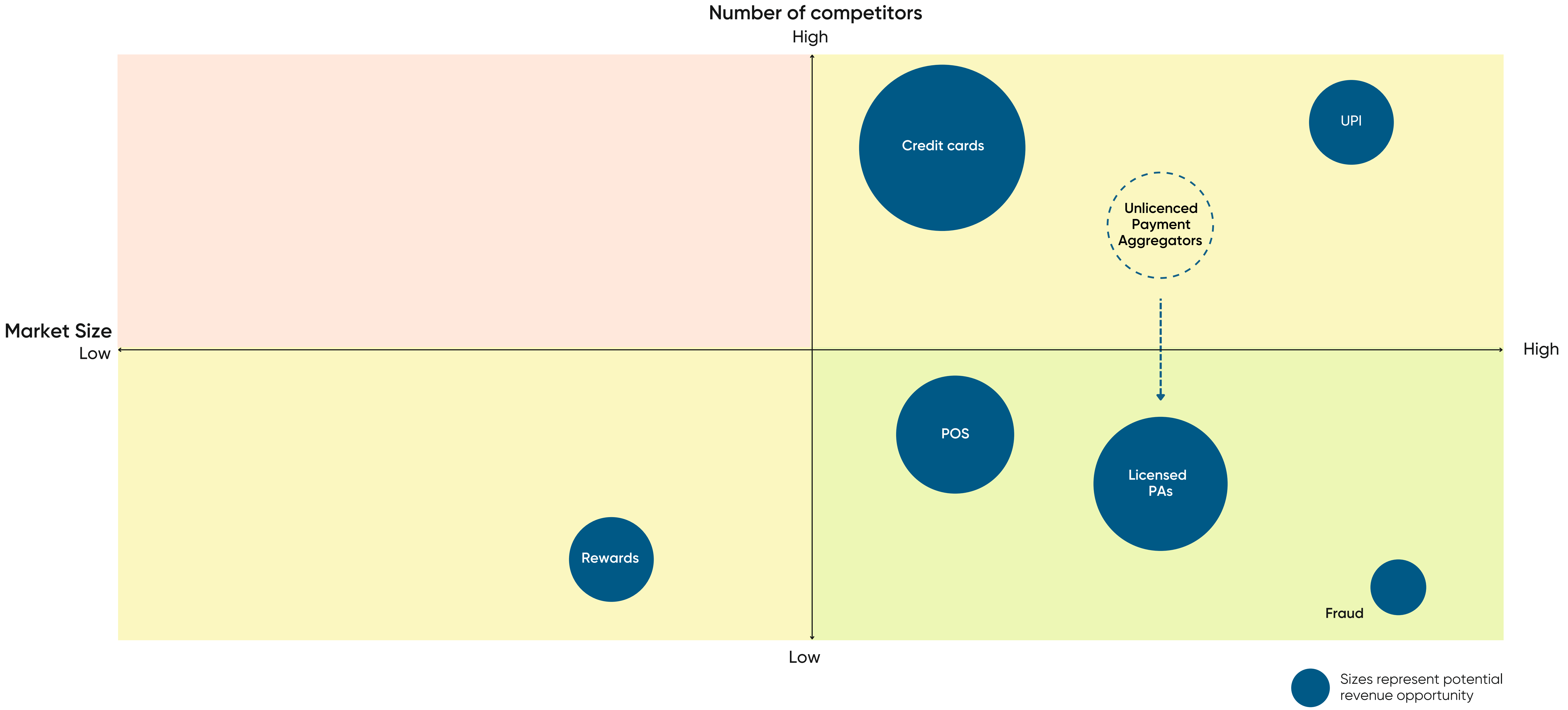
MDRs and Fee in most cases are capped at <1% of the transaction value

MDRs/interchange fees across markets have been capped and have been trending downwards

* For UPI in India

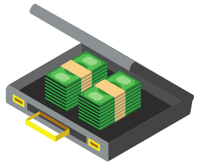
Source Credit Suisse, State of the Fintech Union 2022

Market Sizing Plot



Source: Varanium Research

Regulatory Guidelines and Potential Impact

	Guidelines	Potential Impact
 **Card Tokenisation**	RBI has directed the payment aggregators, wallets, and online merchants (entities in card transaction/payment chain other than card issuers/card networks) not to store any sensitive card-related customer information including full card details. Hence, the card numbers can be replaced with 'token'. Card details (card number, expiry date, CVV, etc) will masked by a single-use randomized alphanumeric character or Token which shall be unique for a combination of card, token requestor and device.	• Increased privacy for customers • Reduced PCI/DSS Compliance for merchants • New revenue potential for card networks and issuing banks • New payment products like Smart Ring, Browser wallets, etc. can be launched
 **PA/ PG License**	Payment aggregators/gateways will be required to obtain a license to acquire merchants and offer them digital payment acceptance solutions.	• The reduced competition will improve margins • Consolidation will unlock economies of scale for licensed players • Licensing will enable greater transparency and customer trust
 **Restriction on loading of PPIs through Credit Lines**	Reserve Bank of India (RBI) clarified to authorized non-bank prepaid payment instrument (PPI) issuers that PPIs might not be loaded from credit lines, and any such practice should be stopped immediately.	• Substantial loss of business to existing players, most of whom had to move from credit line to term loan structure • Margin compressions • Loss of business for PPI Cards Infrastructure providers
 **Co-Branded Cards**	RBI has limited the role of the co-branded card partner entity to only marketing and distribution of cards and now the co-branded entity cannot store the data i.e. would not have access to information relating to transactions by the customers.	• Loss of behavioral analytics-based cross-selling opportunities • Value-added services like fraud analysis cannot be provided at the partner's end

Source: Varanium Research

RBI’s Payment Vision 2025

Witnessing the successful implementation of Payments Vision 2021, where 30+ measures out of the total 35 measures are partially or fully implemented, RBI's Payment Vision 2025 focuses on the core theme of the vision document 'E-Payments for Everyone, Everywhere, Everytime' (4Es), with an overall objective to provide every user with safe, secure, fast, convenient, accessible, and affordable e-payment options. Payments Vision 2025 also leverages India’s efforts and progresses the G-20 agenda to enhance cross-border payments by addressing the four key challenges of cost, speed, access and transparency.

Expected outcomes from Payment Vision 2025

- Volume of cheque-based payments to be less than 0.25% of the total retail payments
- Increase of payment transaction turn-over vis-a-vis GDP to 8
- More than 3x increase in number of digital payment transactions
- UPI to register average annuallzed growth of 50%, IMPS-NEFT at 20%
- Debit card usage to surpass credit cards in terms of value
- Increase in debit card transactions at POS by 20%
- Increase in PPI transactions by 150%
- Card acceptance infrastructure to increase to 250 lakh
- Increase of registered the customer base for mobile-based transactions by 50% CAGR
- Reduction in Cash In Circulation (CIC) as a percentage of GDP

Source: RBI,Varanium Research

Insights

- Industry insiders expect only 8-10% of applicants (out of ~185) to obtain PA /PG licenses. This could result in a consolidated share of business among licensed players and potential margin expansion.

- Payment providers will move from being barebone payments businesses to sector / vertical specialists. Margins will be derived by providing specialized value-added solutions.

- Payment players are looking to tap into alternative revenue sources and neo-banking, lending to enhance their payment incomes.

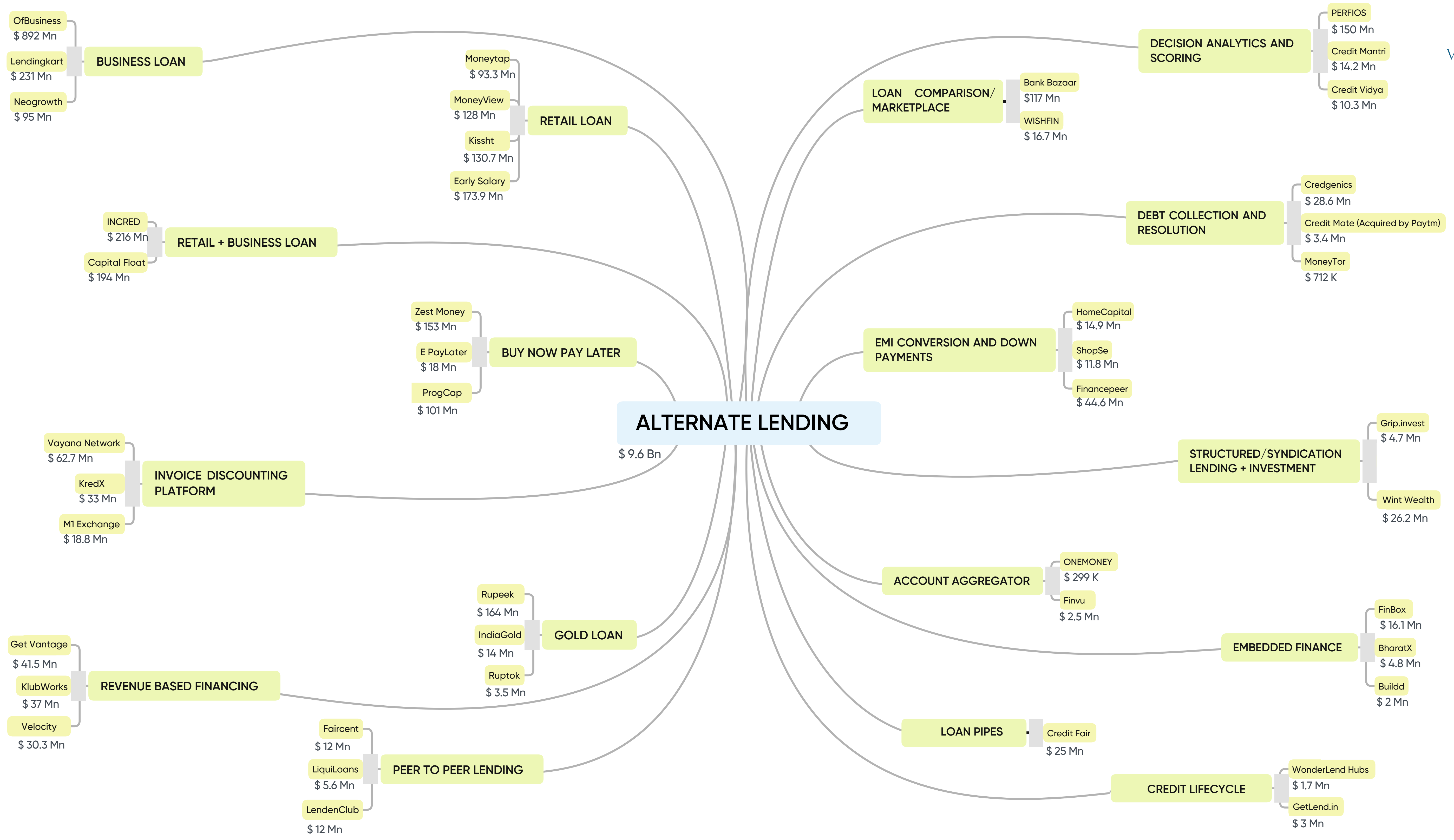
- UPI-powered rails for payments, credit, etc are seeing greater innovation.

- Companies are building a full-stack omnichannel payments solution. Large players are moving from online to offline and vice-versa - e.g. Razorpay acquired Ezetap and Pinelabs started with Plural.

- New guidelines on PPI (non-bank) have disrupted the existing business models of large players in this space.

- UPI 123 and UPI Lite will lead to a greater share of digital payments and will help in removing congestion on UPI Network. Currently, more than 50% of transactions are less than INR 200.

Alternative Lending



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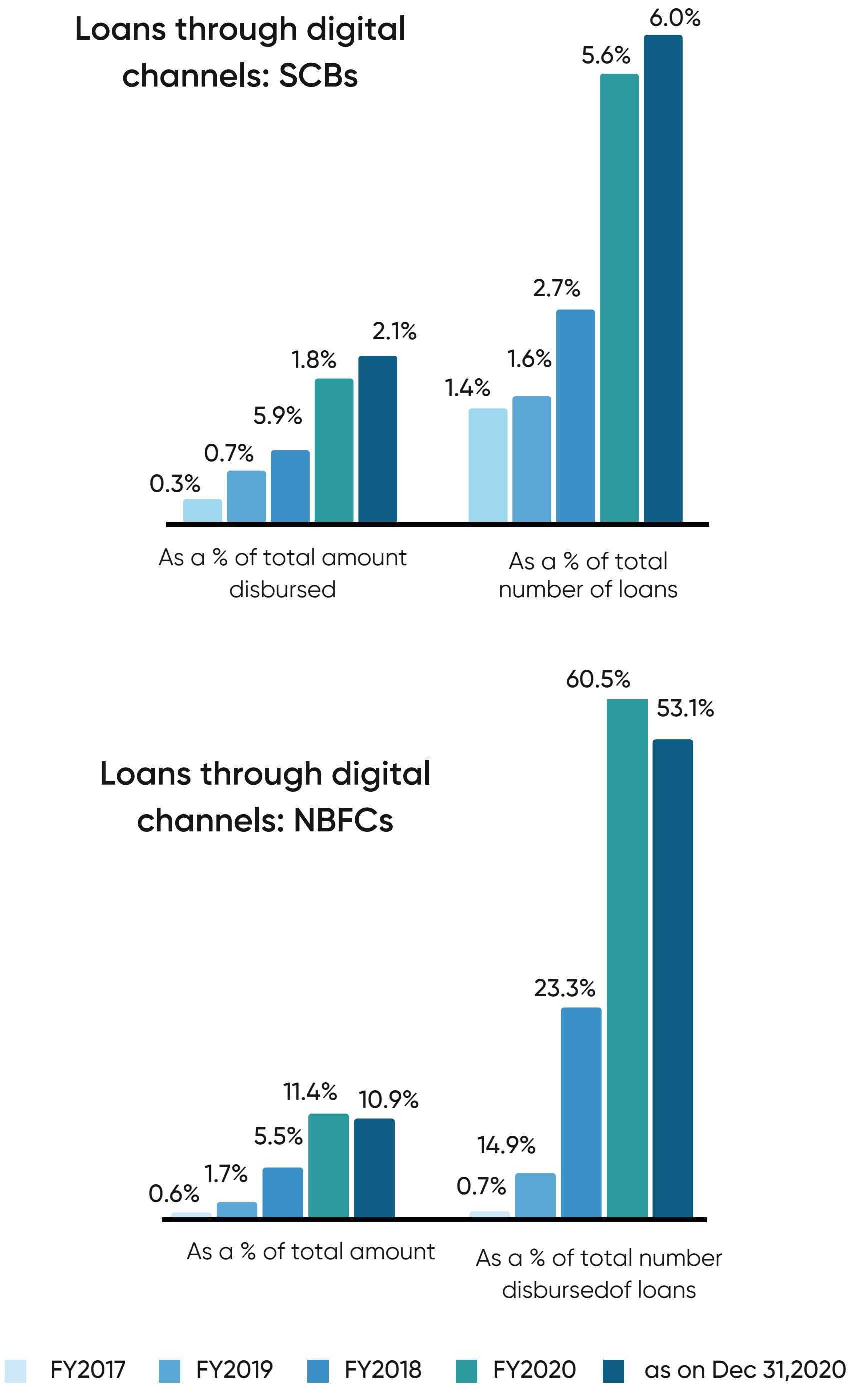
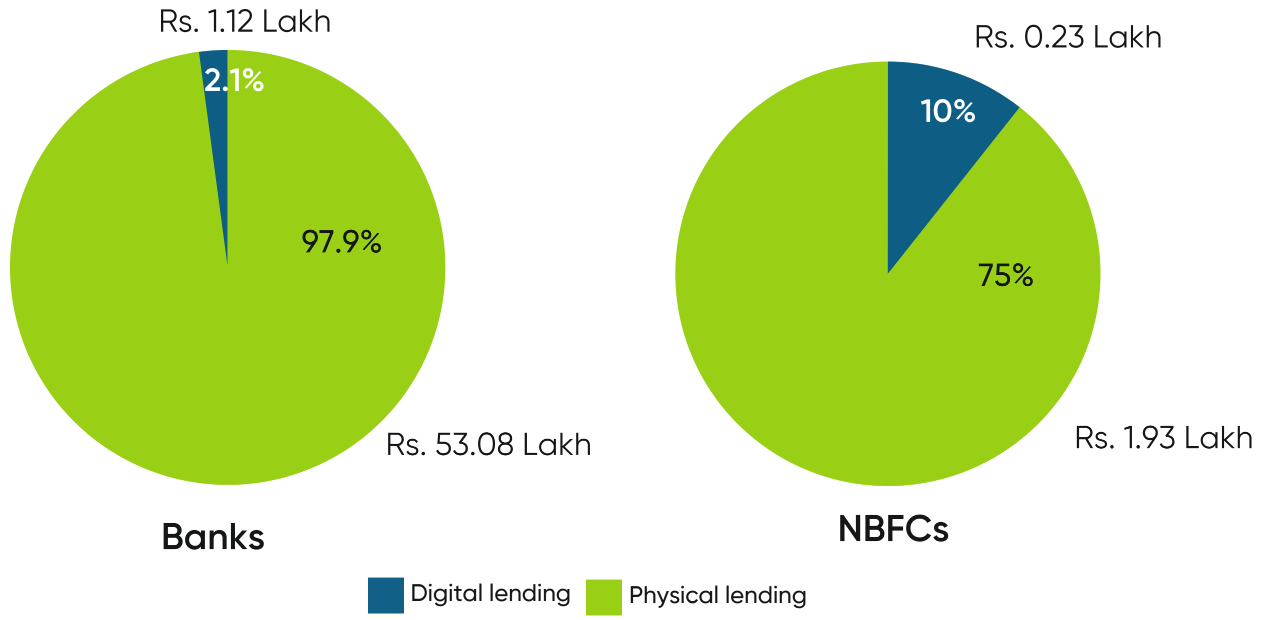
Source: Tracxn, Varanium Research

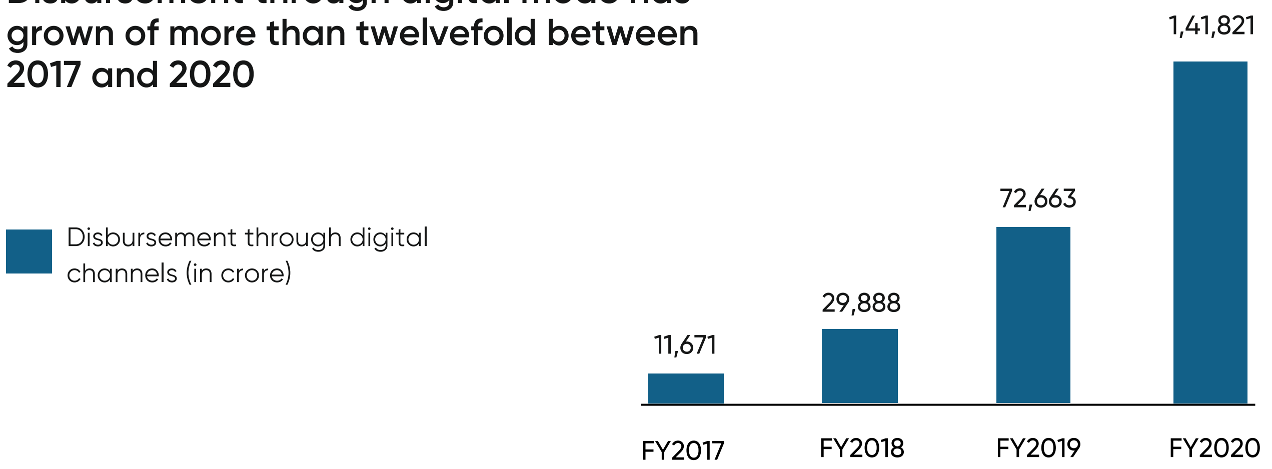


Digital Lending Landscape

Share of Digital lending vs Physical lending (amounts in crores)



Disbursement through digital mode has grown of more than twelvefold between 2017 and 2020



Note: Based Physical RBI's data of a representative sample of banks and NBFCs (representing 75% and 10% of total assets of banks and NBFCs respectively as on March 31, 2020)

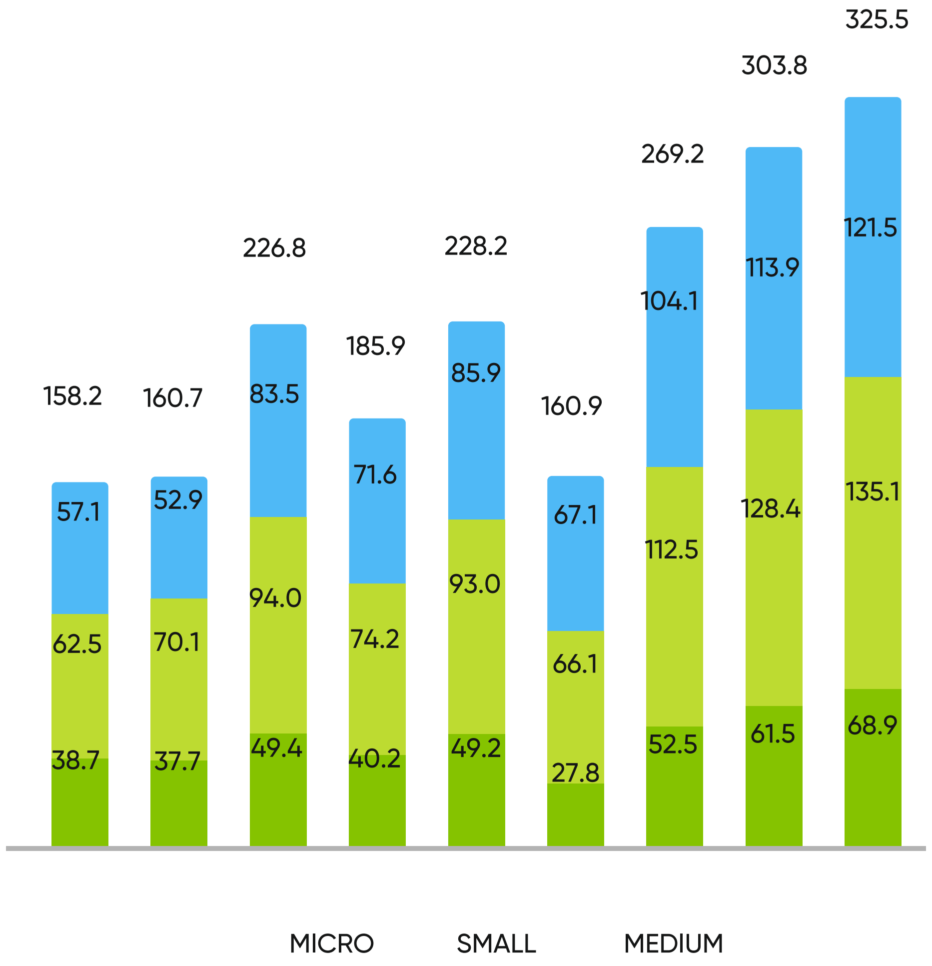
Source: RBI

MSME Credit Snapshot

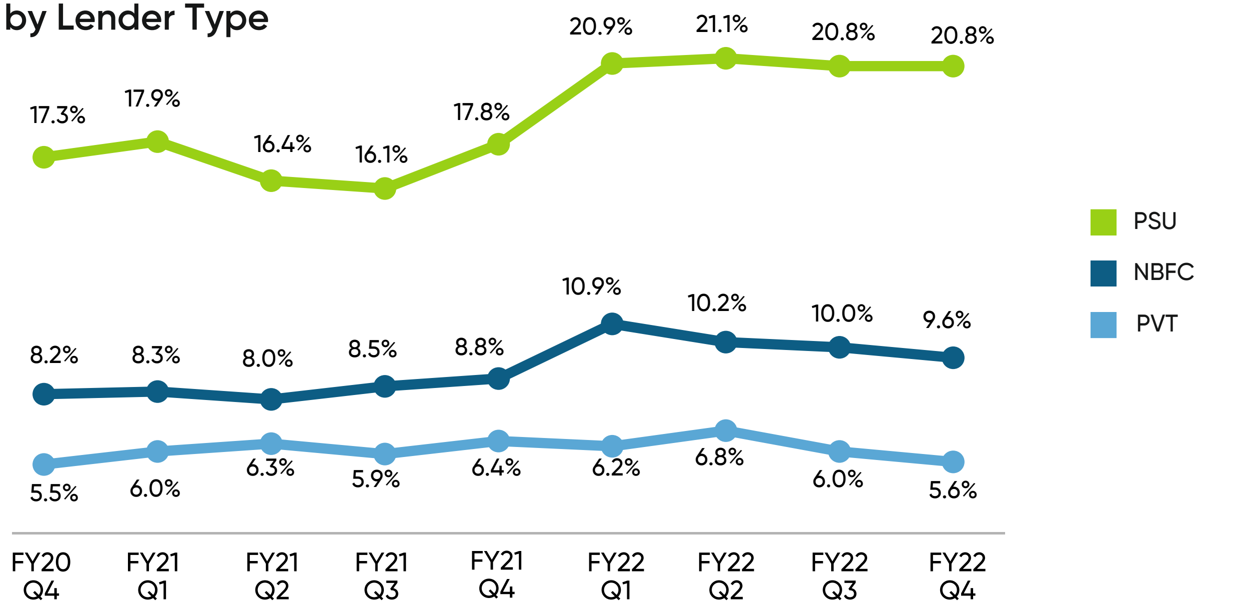
Credit Supply

Total disbursements in MSME have increased Y-o-Y by 43% in FY22-Q4

MSME Disbursement Amounts (in Thousand Crore)

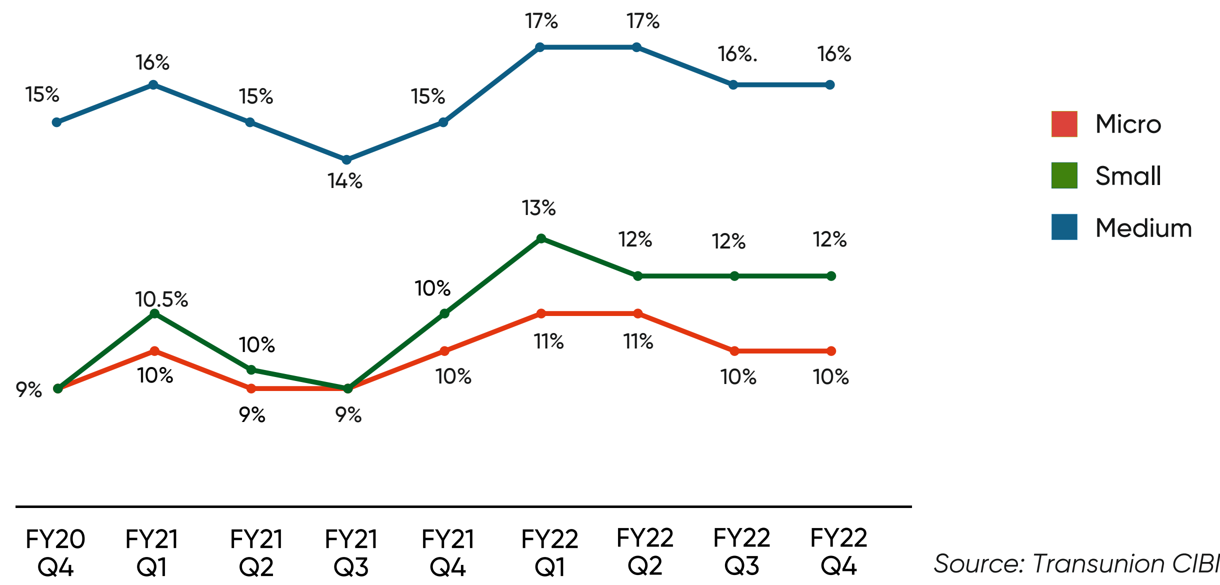


NPA Rates by Lender Type



Overall MSME NPA is 128% as on Mar'22 (FY22-Q4)

NPA Rate by MSME Segment



Source: Transunion CIBIL

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Retail Loans Snapshot

Y-o-Y Growth in Originations (3M ended Mar-2022)

Product	Volume	Value
Home Loan	5%	8%
LAP	13%	14%
Auto Loan	-17%	0%
Two Wheeler Loan	-3%	5%
Personal Loan	125%	37%
Credit Card	59%	-
Consumer Durable Loan	21%	46%

Y-o-Y Growth in Outstanding Balances (Mar-2022)

Product	
Home Loan	11%
LAP	2%
Auto Loan	2%
Two Wheeler Loan	-4%
Personal Loan	22%
Credit Card	17%
Consumer Durable Loan	27%

Balance-level 90+ DPD by Product (Mar-2022)

Product	90+ Rate	Y-o-Y Change (Bps)
Home Loan	1.17%	-67
LAP	2.92%	-108
Auto Loan	0.98%	-43
Two Wheeler Loan	2.45%	-135
Personal Loan	0.86%	-54
Credit Card	2.03%	-88
Consumer Durable Loan	1.55%	-168

Typically, personal loan has higher NPA ratios than home loans. However this instance, there has been a huge growth in Personal loans in Q4 FY22 in personal loans hence the 90+DPD as a % of loans is impacted by the base effect of growth in PL.

Reduction in NPA percentages is due to post pandemic recovery as the NPA rates were higher during the Covid period (Mar-21 : base year)

Source: Transunion CIBIL

Regulators restrict FinTech's balance sheet lending to protect consumer interest

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	INDIA	CHINA	AUSTRALIA	SINGAPORE
Lending on FinTech's balance sheet?	With lending license	With lending license	Allowed	Allowed
Ability to offer credit enhancement to lending partners	FLDGs restriction (WIP); loading PPI through credit lines is banned	Through licensed agencies (insurance, fin guarantee)	NA	Restricted
Cap on lending rates	No cap	For specific products	No cap	No cap
Other lending related restrictions	Late payment penalties Restricting access to credit bureau to regulated entities Prohibiting FinTechs from branding as banks/ Neo Banks	30% loan retention for online lending platform. No one-click purchases Ban on platform branding for 3rd party product cross sale 25% cap for banks on sourcing from single online platform	NA	NA

Source: Asia FinTech Sector Report. Credit Suisse. Central Banks. Press Search

India’s SME and Retail Financing Stack

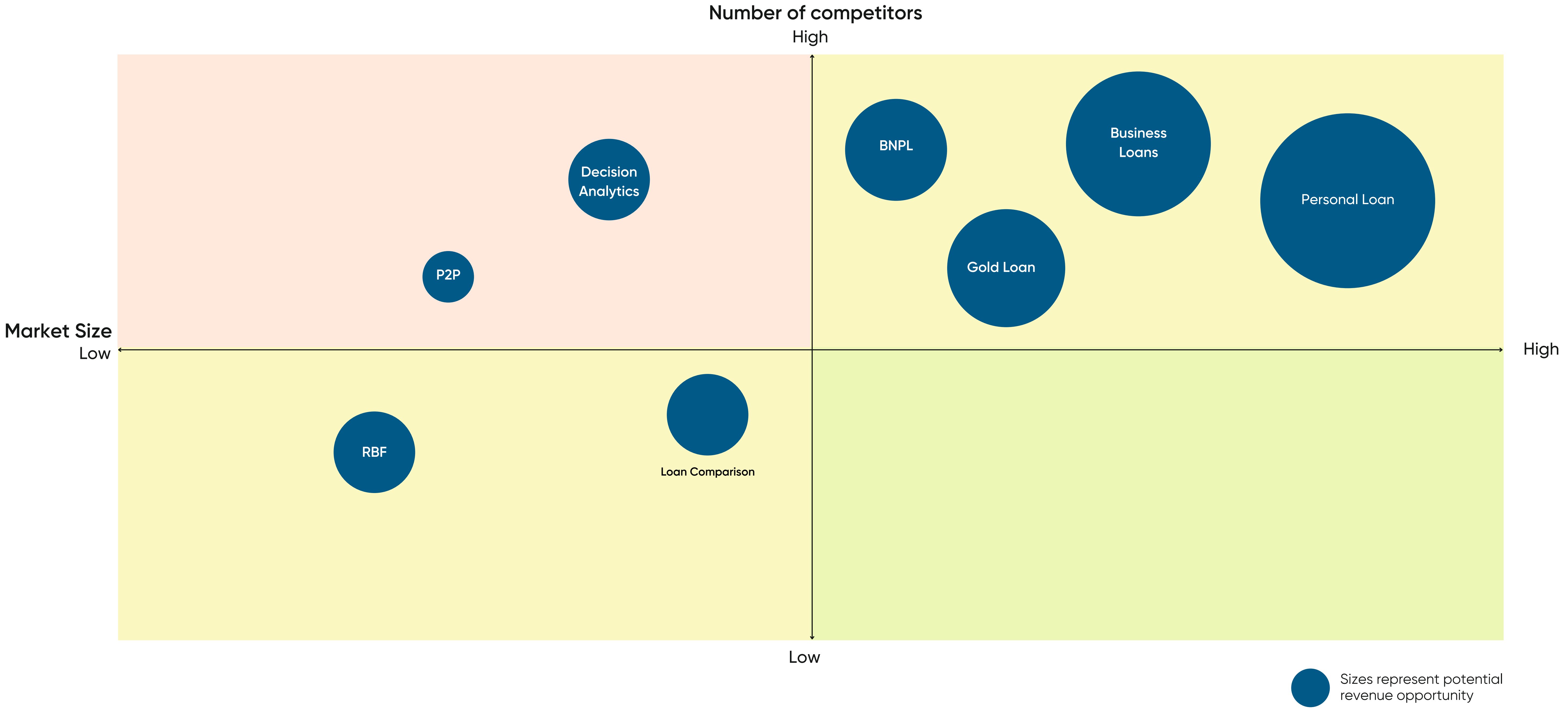
Source: Varanium Research

Loan Processing Journey - Unsecured Business Loans

Onboarding		Underwriting		Disbursement	Loan Management and Monitoring		Recovery
Doc/Video KYC	Income Verification	Data	Analytics		LMS	Fraud detection	Digital Debt Collection
Signy Karza Zoop.one Digio	Tartan Perfios Finvu	Credit Bureau Perfios Finvu	Monsoon Credit Credit Vidya Crediwatch	Doqfy Leegality	Nucleus Kuliza	Hunter (Experian) Advarisk	Credgenics Moneytor Creditas Credimate
Customer's Document Verification - INR 100-200		Average cost of Underwriting - 50-150		Average cost of Disbursement - 100-150	LMS - 0.1%- 1% Fraud Monitoring - INR 150-500		Digital Debt Collection - 15-20% of collected amount

Source: Varanium Research

Market Sizing Plot



Source: Varanium Research

Digital Lending Guidelines

FLDG

The RBI has clarified that contractual arrangements entered into by banks and NBFCs where such lenders are compensated by third parties (for up to a percentage of the default in a loan portfolio) must comply with rules prescribed for synthetic securitisation (which is an arrangement where credit risk of an underlying pool of loan exposures is hedged through credit guarantees). RBI regulations prohibit lenders from entering to synthetic securitisation transactions. Based on the above, it appears that RBI is intending to prohibit any FLDG arrangements in the market.

Implementation timelines

The RBI has clarified that the digital lending guidelines (including various compliances introduced thereunder) will be effective upfront (i.e. from today) for all fresh loans to be sanctioned by banks / NBFCs through digital lending platforms. For existing digital loans which have been sanctioned until now, the RBI has provided an implementation timeline of 30 November 2022 for bank/ NBFCs to put in place adequate systems and processes for compliance.

Fund-flows

The RBI has clarified that banks / NBFCs can transfer loan amounts to third party beneficiaries as per the specific end-use of the loans sanctioned. Further, any usage of third party passthrough/pool accounts continues to be prohibited except in the case of co-lending transactions or disbursals covered under statutory or regulatory mandates.

Cooling-off / look-up period

The RBI has prescribed a minimum cooling-o / look-up period to be adopted by banks and NBFCs. For loans having tenor of less than seven days, the cooling-o period must be at least one day, and for other loans, such cooling-o period must be at least three days.

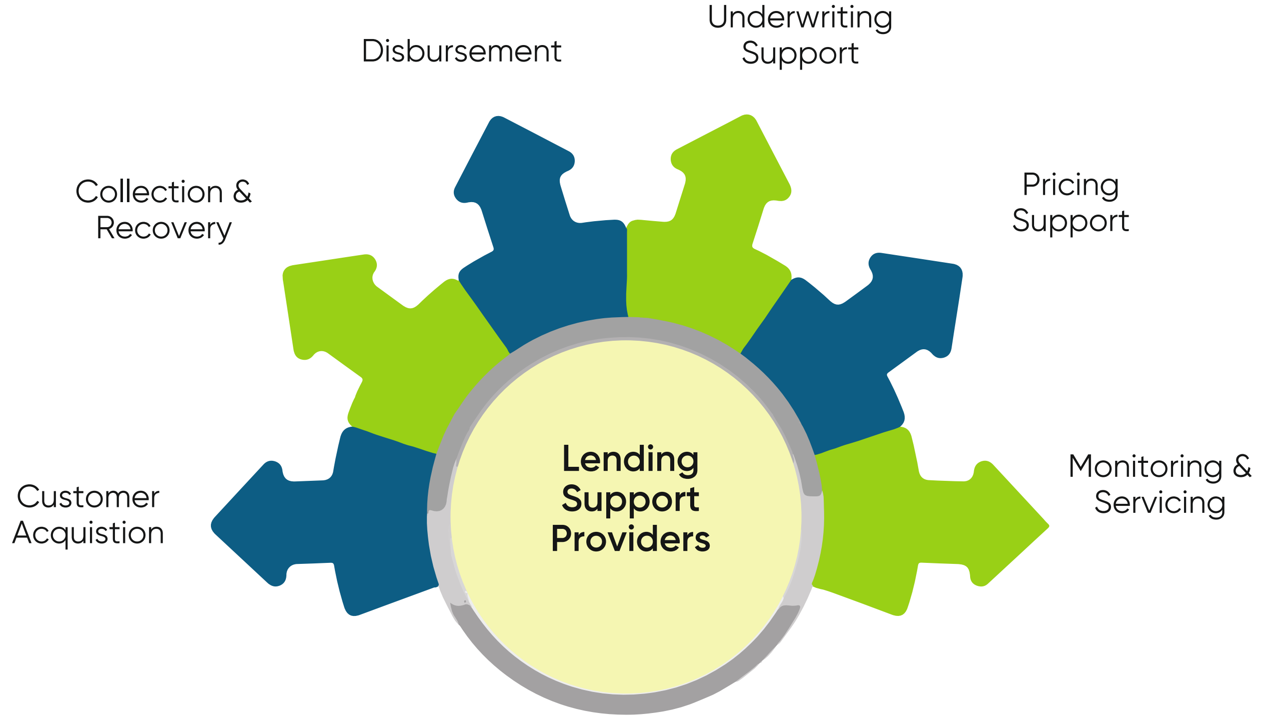
Data localisation

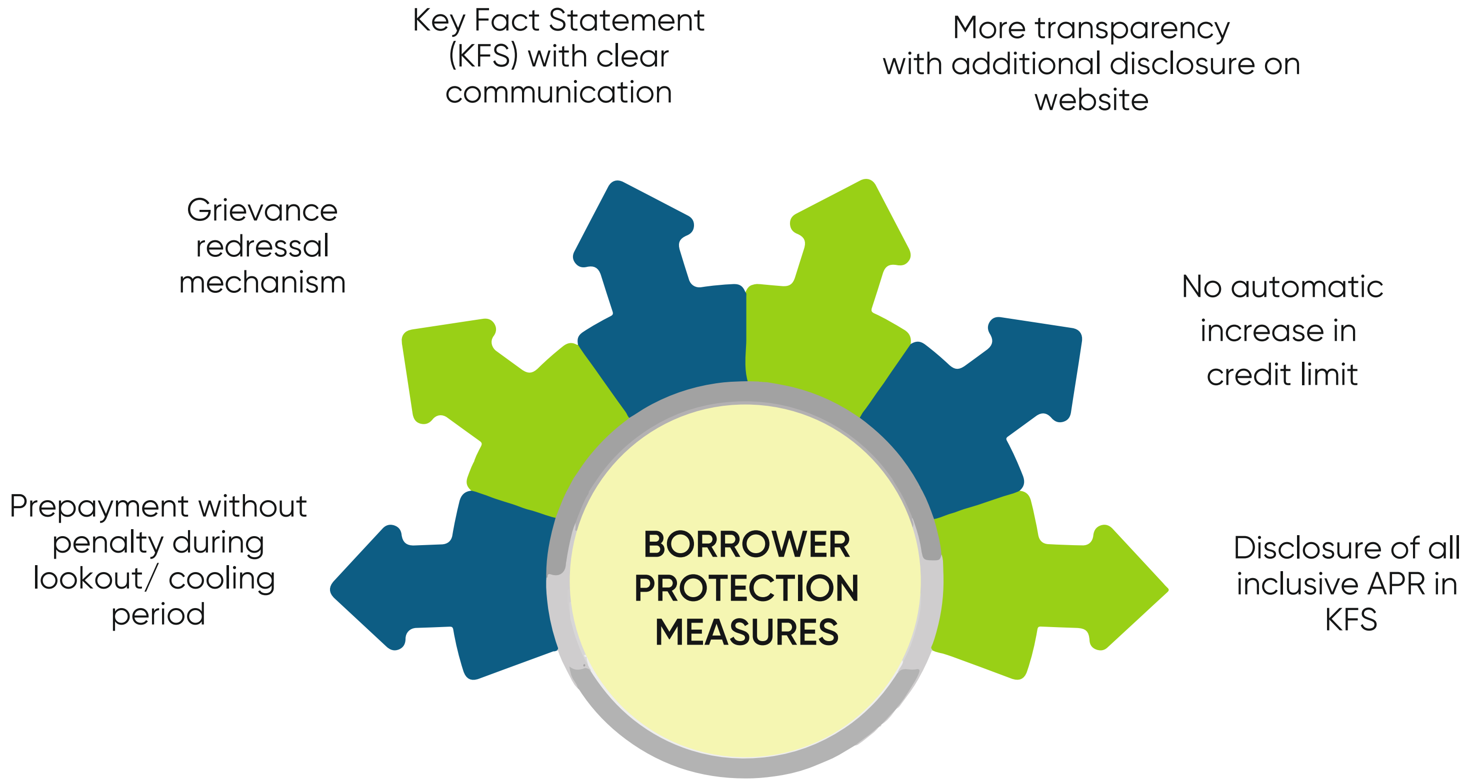
The RBI has reiterated that all data relating to digital lending transactions must only be stored in local servers.

Digital Lending Guidelines

Lending Service Provider (LSP): An agent of a Regulated Entity who carries out one or more of the lender's functions or part thereof in customer acquisition, underwriting support, pricing support, servicing, monitoring, and recovery of specific loan or loan portfolio on behalf of REs in conformity with extant outsourcing guidelines issued by the Reserve Bank.

Who can be Lending Support Providers?





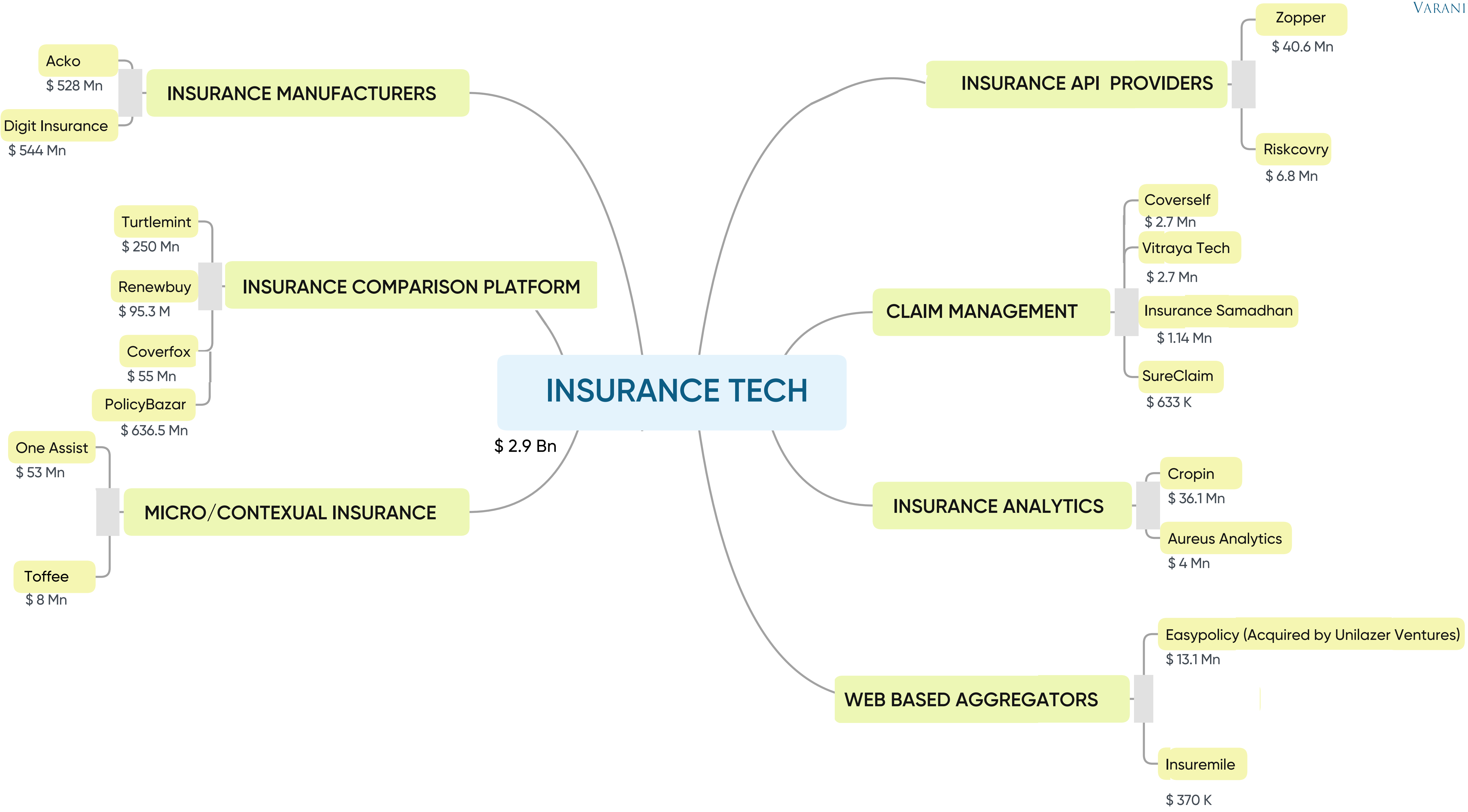
Potential impact

- If FLDG is not allowed to be given to RE by loan service providers (LSP) then we may observe an uptick in effective Interest rates by upto 3%.
- More transparency and disclosure will lead to better customer trust and experience
- Operational overheads may increase by upto 20% due to changes in the existing fund flow structure.

Insights

- Asset quality, CAC and regulations are top challenges to sustainability
- Only 20% of fintech lenders are profitable
- The launch of Account Aggregator and OCEN will: lower cost of onboarding, create transparency and democratize lending processes
- Fintech lenders have lower onboarding cost but higher credit losses and cost of Funds. Lenders have to lower cost of funding (a) by securitization (b) improving quality of lending and obtaining better credit rating and consequently bank lines.
- Digital platforms (for e.g., Swiggy, amazon, myntra) are building partnerships with lenders to create embedded financing solutions
- Digital lending guidelines will drive up the cost of compliance for lenders and plug regulatory arbitrage
- Independent digital collection agencies are finding it challenging to create a profitable model and survive on a standalone basis

Insurtech



Source: Tracxn, Varanium Research

Indian Insurance Landscape

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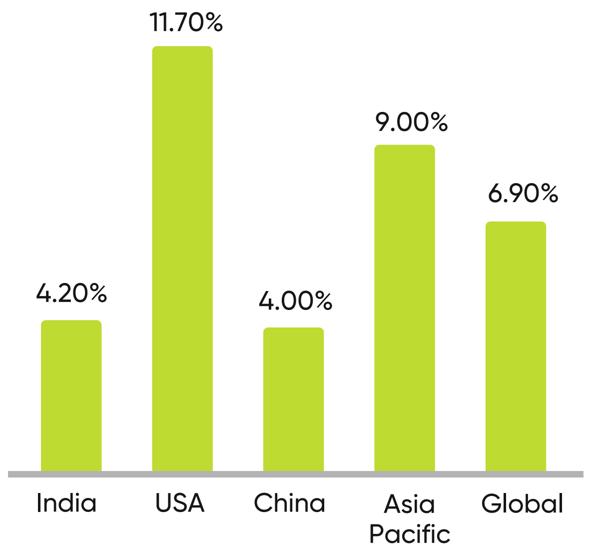
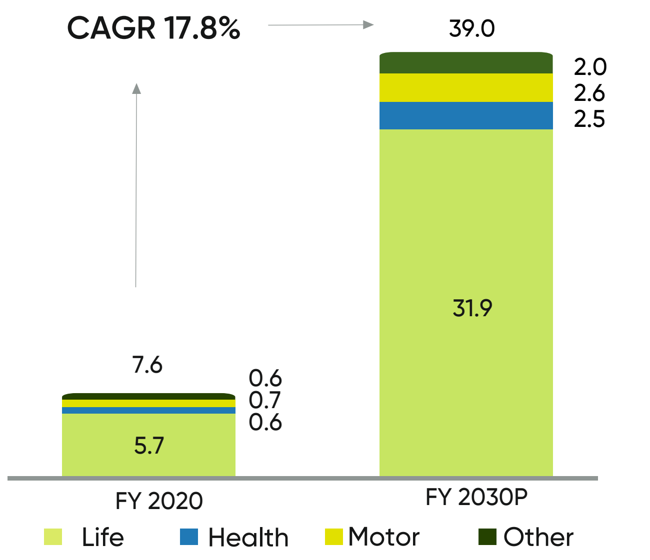
Insurance Premium as a percentage of GDP



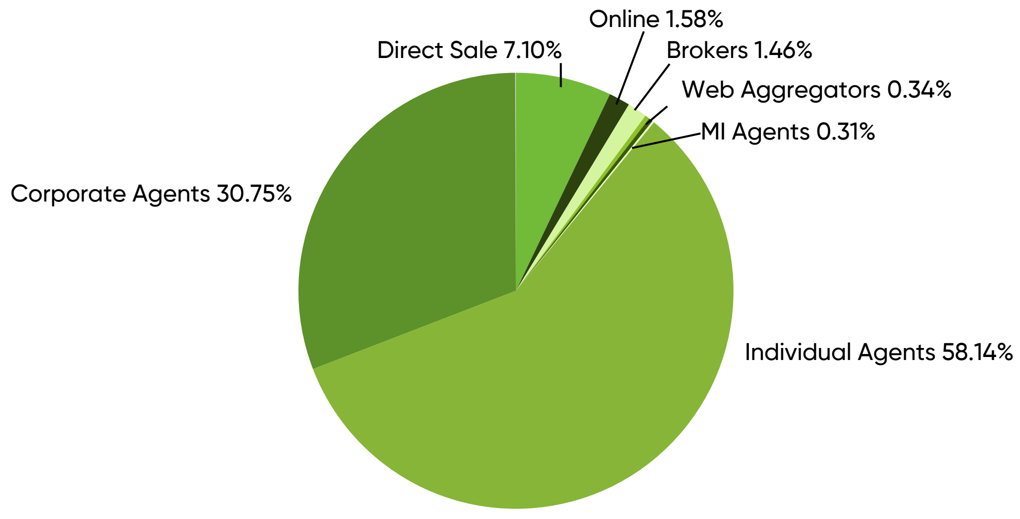
Insurance being a complex product – has lower online sales

India Insurance Market By Total Premium

(in trillions)

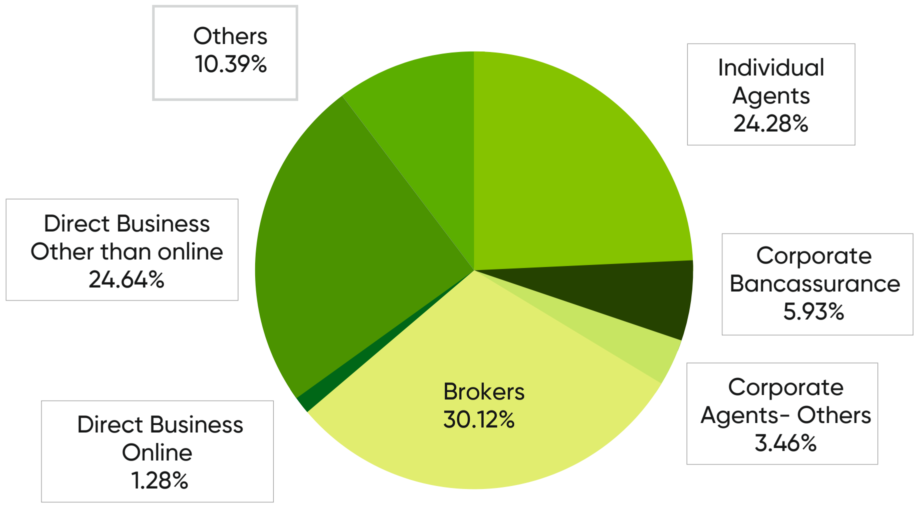


Channel-wise Individual New Business Performance in Life Insurance Business (2020-21)



Figures in % of premium

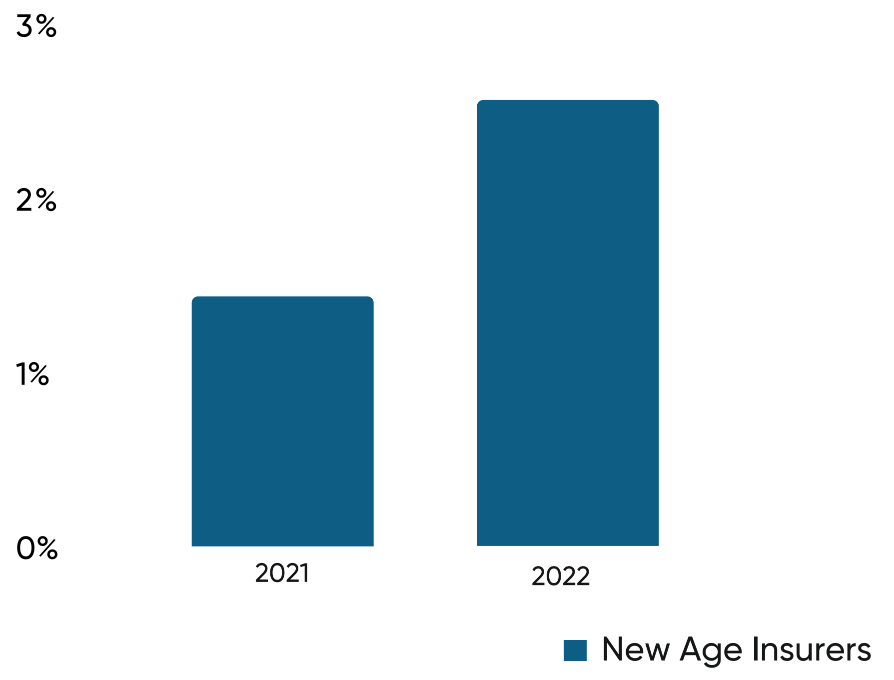
Channel-wise Business Performance of General Insurers (2020-21)



Source: Frost & Sullivan Analysis, IRDA

Increasing Pie of New Age Insurers (Manufacturing of Insurance)

GWP Share of New Age non-life Insurers are increasing at a rapid pace



	2021	2022
Traditional Insurers	98.6%	97.4%
New Age Insurers	1.43%	2.56%

Differentiated Approach leading to increased market share:

Creating customer centric insurance products such as introducing bite sized/ sachet insurance products through unbundling and repackaging.

Driving growth through corporate partnership and embedding insurance.

Disintermediation - cheaper policy rates due to direct selling of policies to customers without any middleman.

Seamless, hassle-free and structured claim filings process.

Better underwriting model by utilizing alternative data sources to more accurately assess and price the risk.

Source: IRDA, Varanium Research

Fintech based Insurance Distribution and Landscape

	Distribution Type	Leading Players	Revenue	Cost Drivers
D2C	Web Aggregators	easypolicy, Insuremile, policybazaar.com (Compare. Buy. Save.)	Life: 35-40%* Non-Life: 15-30%*	Telecalling
	Agent Driven	turtlemint PRO, RenewBuy.com, InsuranceDekho		Agent payouts: 75-85% of commission earned
B2B2C	API Stacks	Riskcovry®, turtlemint PRO, COVER GENIUS	For corporate distribution: 1% of GWP For embedded Insurance: 8-10 % of GWP	Employee cost Tech cost

*Estimated commission at % of Gross Return Premium

Note: PolicyBazaar has surrendered its Aggregator Licence and taken a brokering license

Source: Varanium Research

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Forward looking regulatory moves creating growth unlocks

Regulatory	Guideline	Potential impact
Usage based insurance	• Introduction of new age add-ons for Motor Own damage cover • Pay as you drive (switch-on/switch-off insurance according to need) • Pay how you drive (the better you driver lesser the premium) • Floater policy for 2-wheelers and private cars belonging to the same owner	• Expected to accelerate insurance penetration 3+ year vintages PV, 2W
Simplified product filing guidelines	• Insurers across product lines (Life, GI, Health) allowed to use and file products	• Accelerates the product introduction timelines • Greater flexibility launch innovative products with Differentiated features, pricing - in line with evolving demands of the customer, and assist in increasing insurance penetration
Flexibility in the empanelment of cashless hospitals	• Insurers can directly empanel hospitals for cashless treatment without registration with Registry of Hospitals in the Network of Insurers (ROHINI)	• Insurers can expand the network of hospitals (PPN- preferred provider network) providing cashless facilities, thereby improving access to quality health-care and best medical infrastructure. • This initiative will help in expanding the network especially in Tier-2+ locations
Corporate Agents	• IRDAI has permitted banks to sell insurance policies of up to nine insurance companies Corporate Agents in each domains i.e. life, non-life and health rom three insurance companies.	• This gives greater product diversity as against having 3 insurers earlier in each segment
Dematerializati-on of Policy	• Dematerialisation of policy	• This will allow easy linkage with ABHA Easier data sharing and claim management

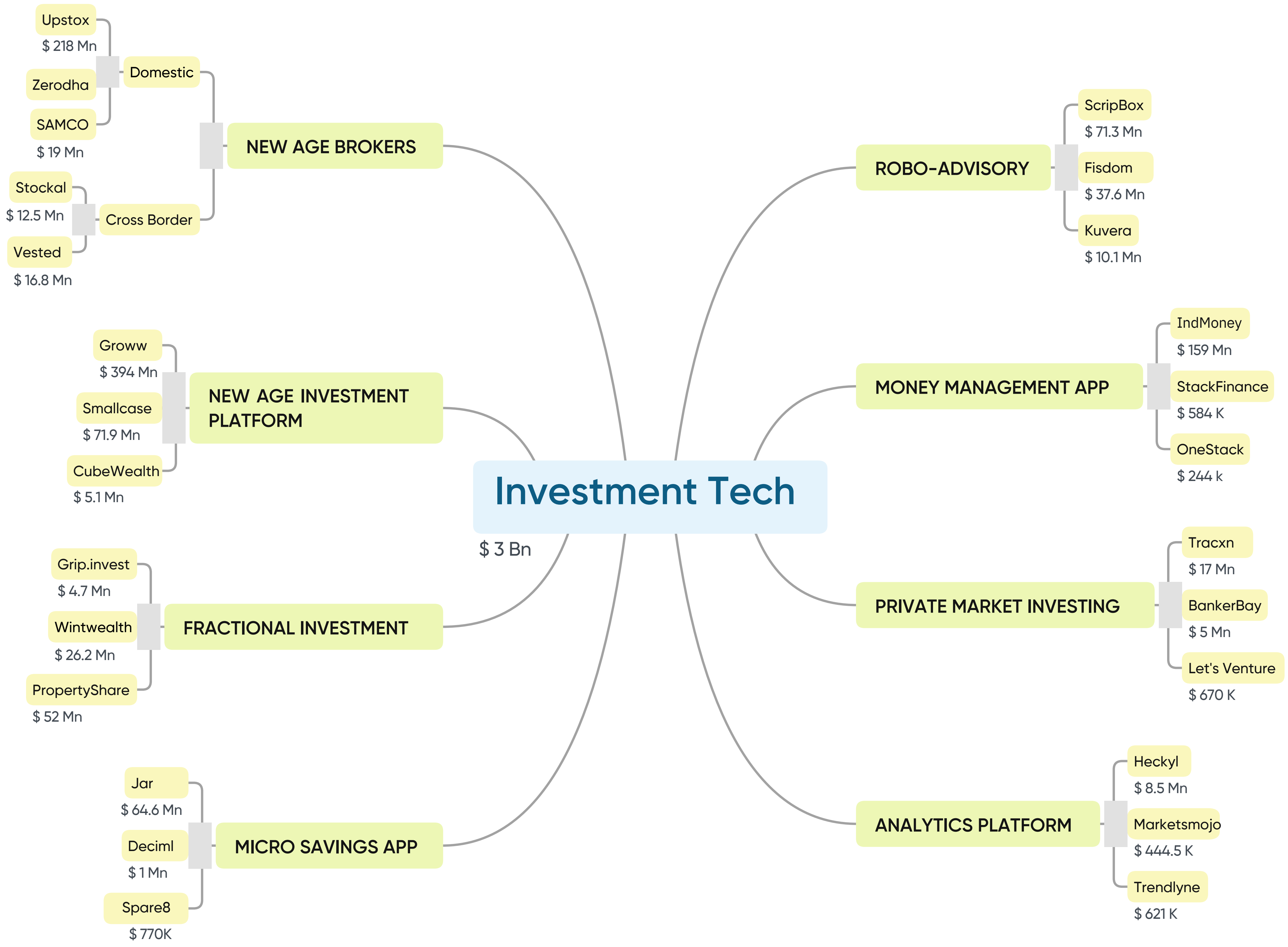
Knowledge Partner: Cyril Amarchand Mangaldas

Source: IRDAI, Web search, Varanium Research, BCG analysis

Insights

- Maximum innovation is taking place in health and motor verticals.
- Regulatory changes such as usage-based insurance, simplified product filing guidelines, and flexibility in the empanelment of cashless hospitals are making products customer friendly.
- Product flexibility in structure and pricing, going beyond insurance to service and solutions, leveraging changing regulatory landscape to drive growth ahead
- Claim filing and settlement journey experience is highly broken and ripe for innovation and has created a trust deficit.
- Fintech and insurance companies are collaborating in distribution and embedded insurance.
- A national health stack at scale can unlock significant potential for insurers, customers, and providers with a better experience, better products, lower costs (frauds), and can transform the reach of retail health. InsurTechs will have a significant opportunity to utilize the platform to create innovations and integrate with insurers.
- IRDAI Sandbox has enabled the growth of innovative products but needs relaxation of guidelines (E.g. Quick approval, ‘use & file’ for products/services).

Investment Tech



Source: Tracxn, Varanium Research

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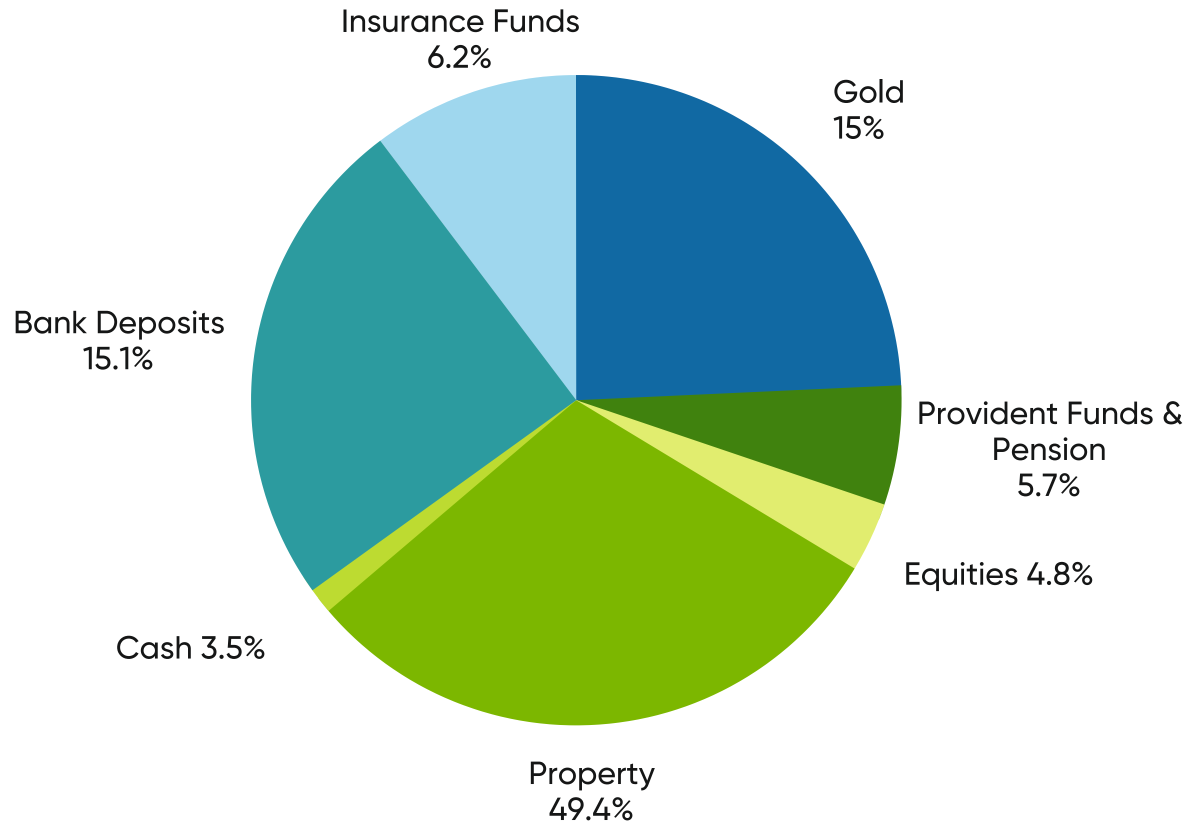
Where do Indian households invest their savings?

Total Indian Households assets in March 22 were $10.7 Trillion



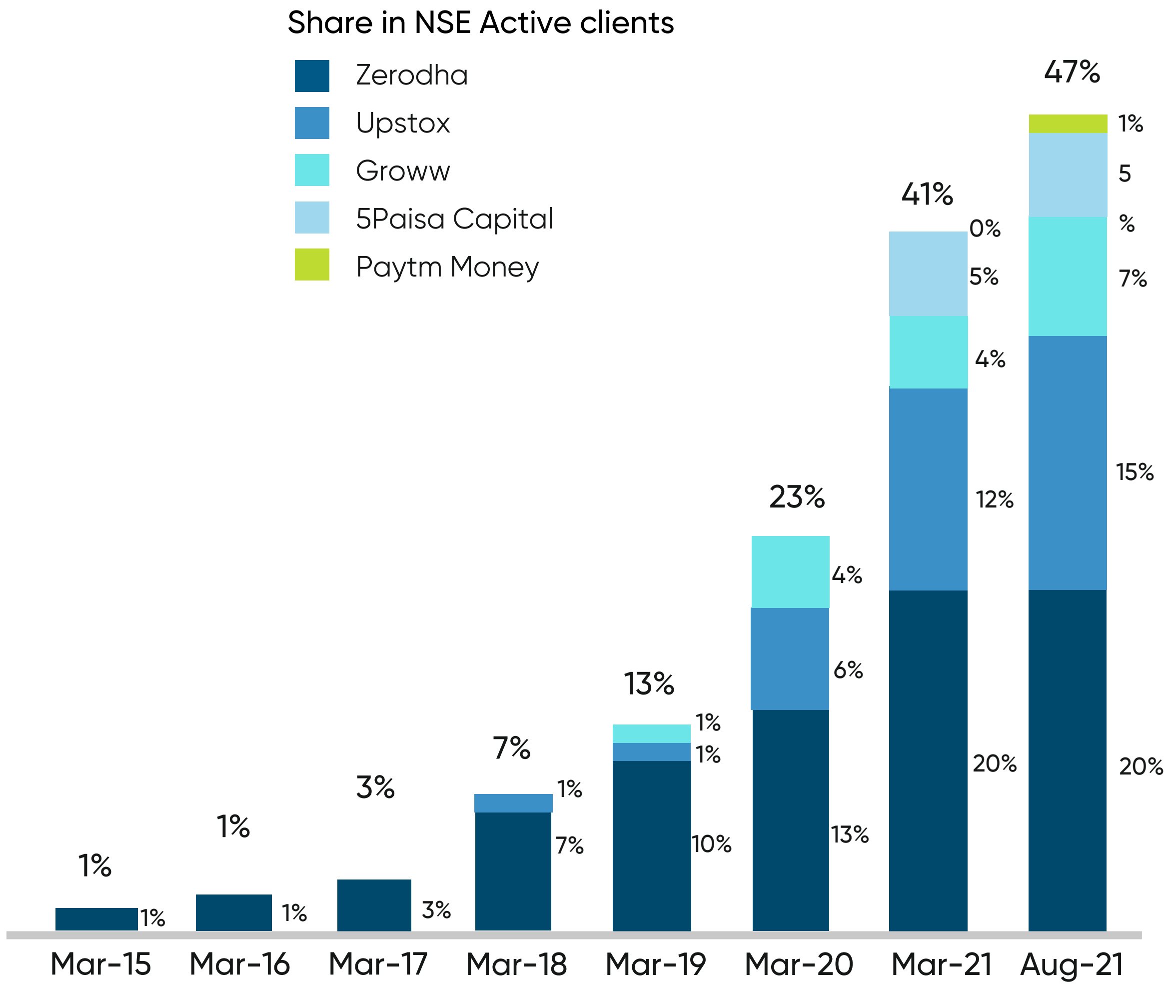
Physical assets, that is property and gold, are still dominant, though physical assets have lost about eight percentage points percentage points share to financial savings since the trend began in 2014.

Total household savings as a percentage of GDP in FY22 go back the pre-Covid level of 23-24%

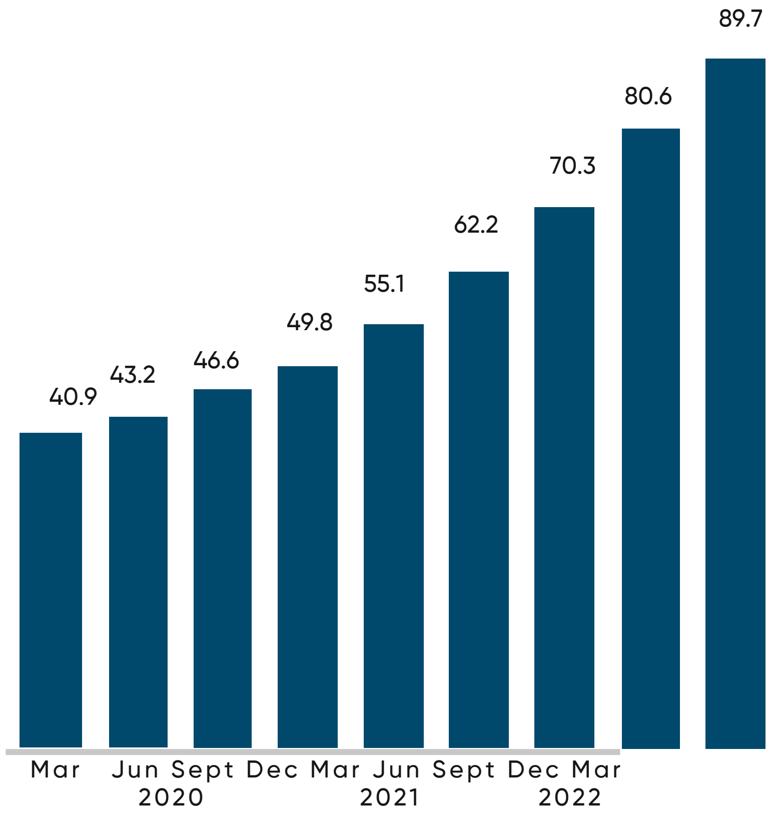
Source: Jefferies

Digital Brokers Grabbing Market Share

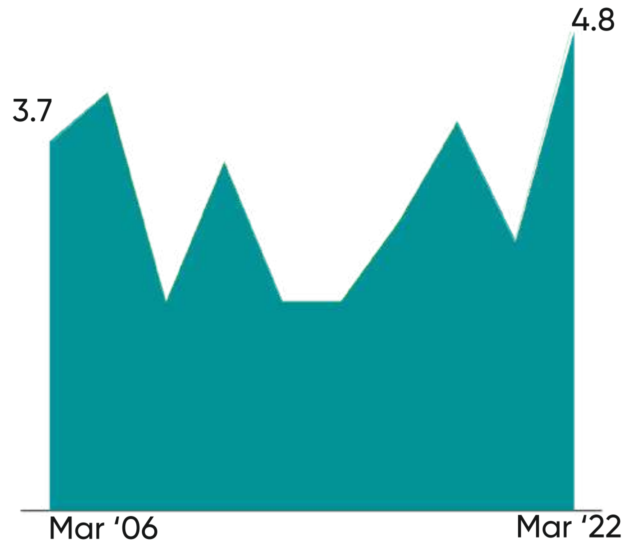
Top 5 new-age brokers now account for almost half of NSE active clients, vs 1% as of Mar-15



Over 2 million new accounts added every month since 2020 Active demat accounts (mn)

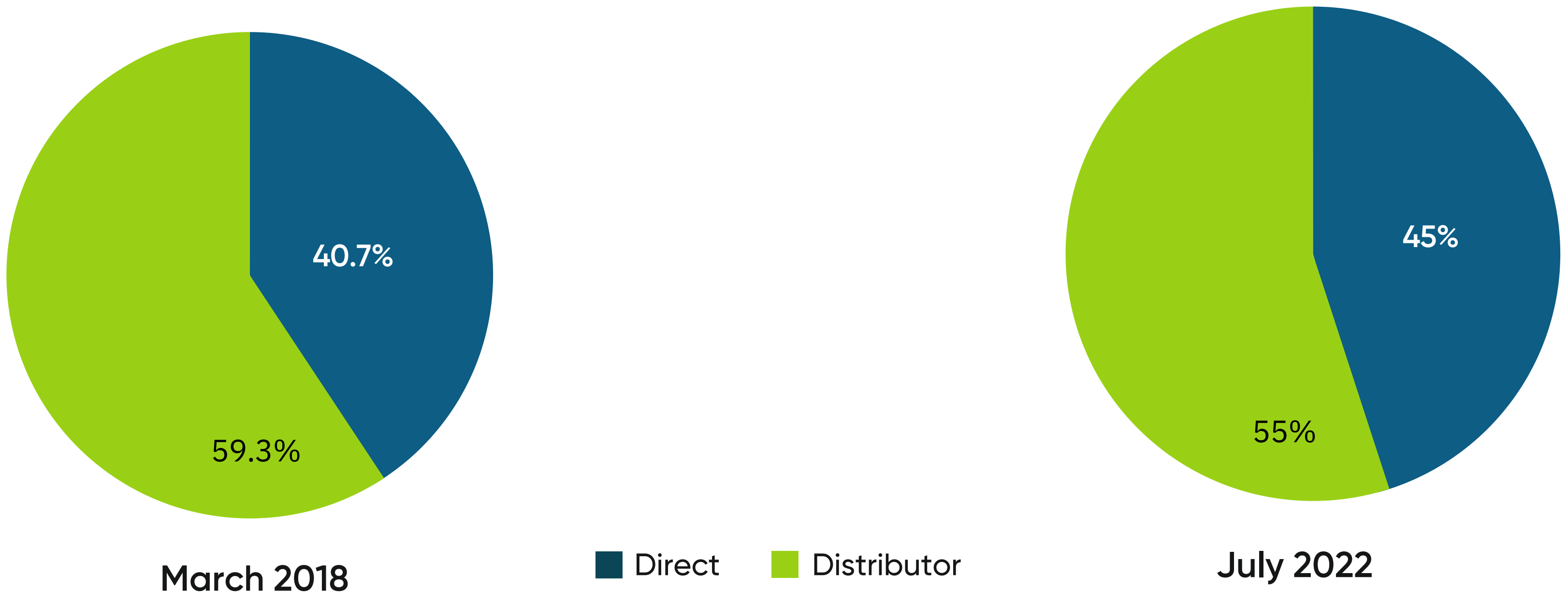


Equities as % of household savings



Source: CDSL, NSDL Source: NSE, Jefferies

Direct Mutual Funds: Eating Wealth manager's Pie



Increasing share of Direct Mutual funds (for corporate, HNI and retail investors) - resulting in declining revenues for wealth managers

Larger wealth managers are increasingly moving from distribution to manufacturing (Mutual funds). For instance, Groww has taken over Indiabull's MF business, NJ Invest has applied for an AMC license.

Source: AMFI, Varanium Research

New Age Alternative Investing Platforms

VARANIUM

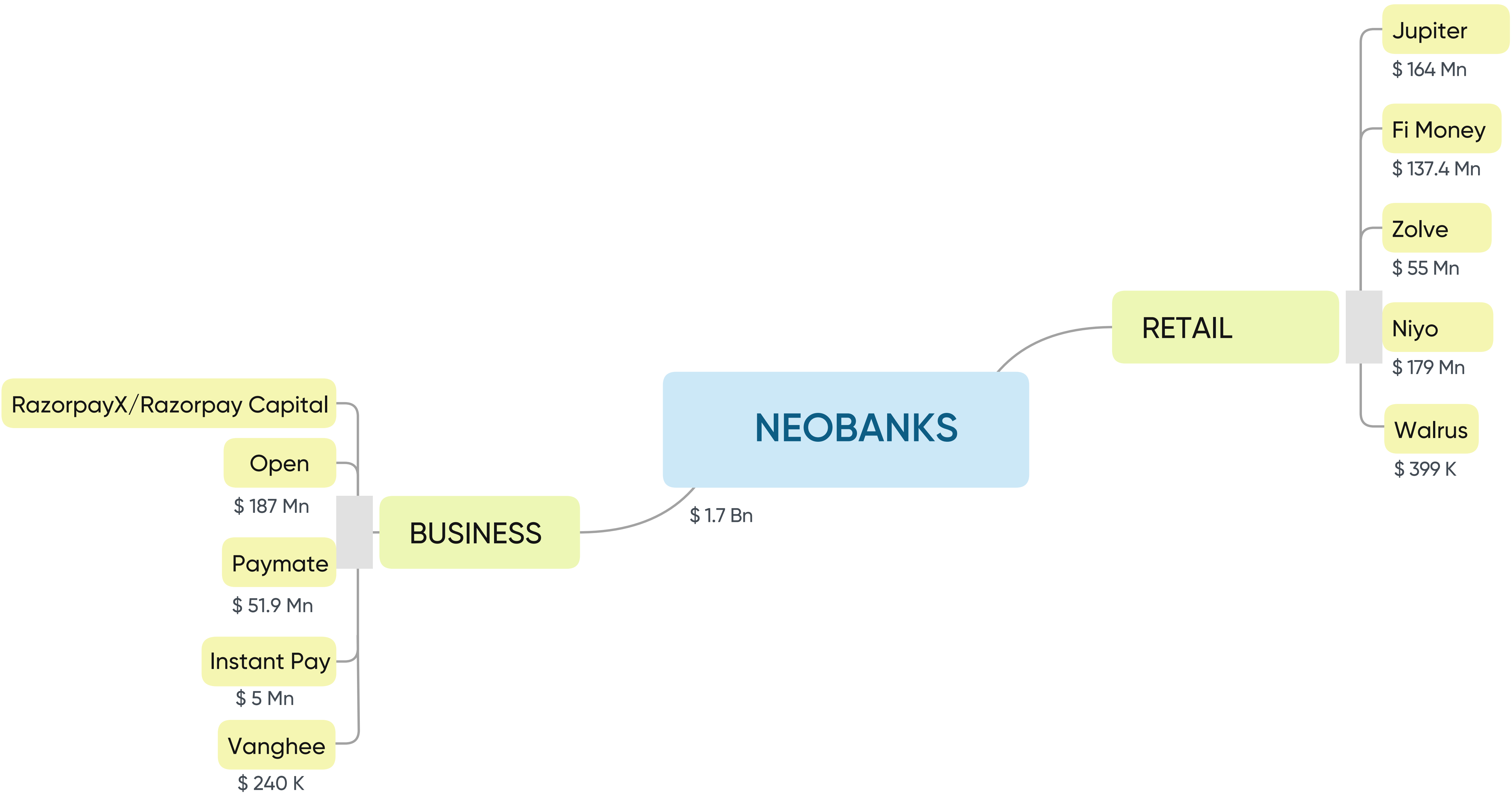
- **Aggregators**: orowealth, TradeCred, Altifi, JIRAAF
- **International Equity**: stockal, Vested
- **Revenue Based Financing**: klub, N+1
- **Debt**: PLUTUS, GoldenPi, BONDSINDIA, Harmony, wint, IndiaBonds (A Bond in Every Hand)
- **Lease Financing**: GRIP, pyse, Leaf, LIFESET CITY, + Fivesto
- **Fractianal Real Estate**: STRATA, PROPERTY SHARE, BHIVE WORKSPACE
- **Artwork**: FRACTIFY, MASTERWORKS
- **P2P**: FAIRCENT, LIQUILOANS, LenDen club, Lendbox, MONEXO (Lend GROW, Borrow GROW)
- **Crowdfunding & Fractional Funds**: WEFUNDER, RAISON
- **Pre IPO Equity, Deal Intelligence and M&A**: altius, EQUITYZEN, MergerDomo, Ok! Acquired, Leadoff.
- **Wine Investments**: vinovest
- **Farm Financing**: Growpital
- **EV Financing**: URIAGROW
- **Movie Financing**: Better invest
- **Brand Loyalty based Debt**: Bevy
- **Startup Micro-investment**: tyke, pod
- **Angel Investing**: Let'sVenture, AngelList, connexdoor

Source: Varanium Research

Insights

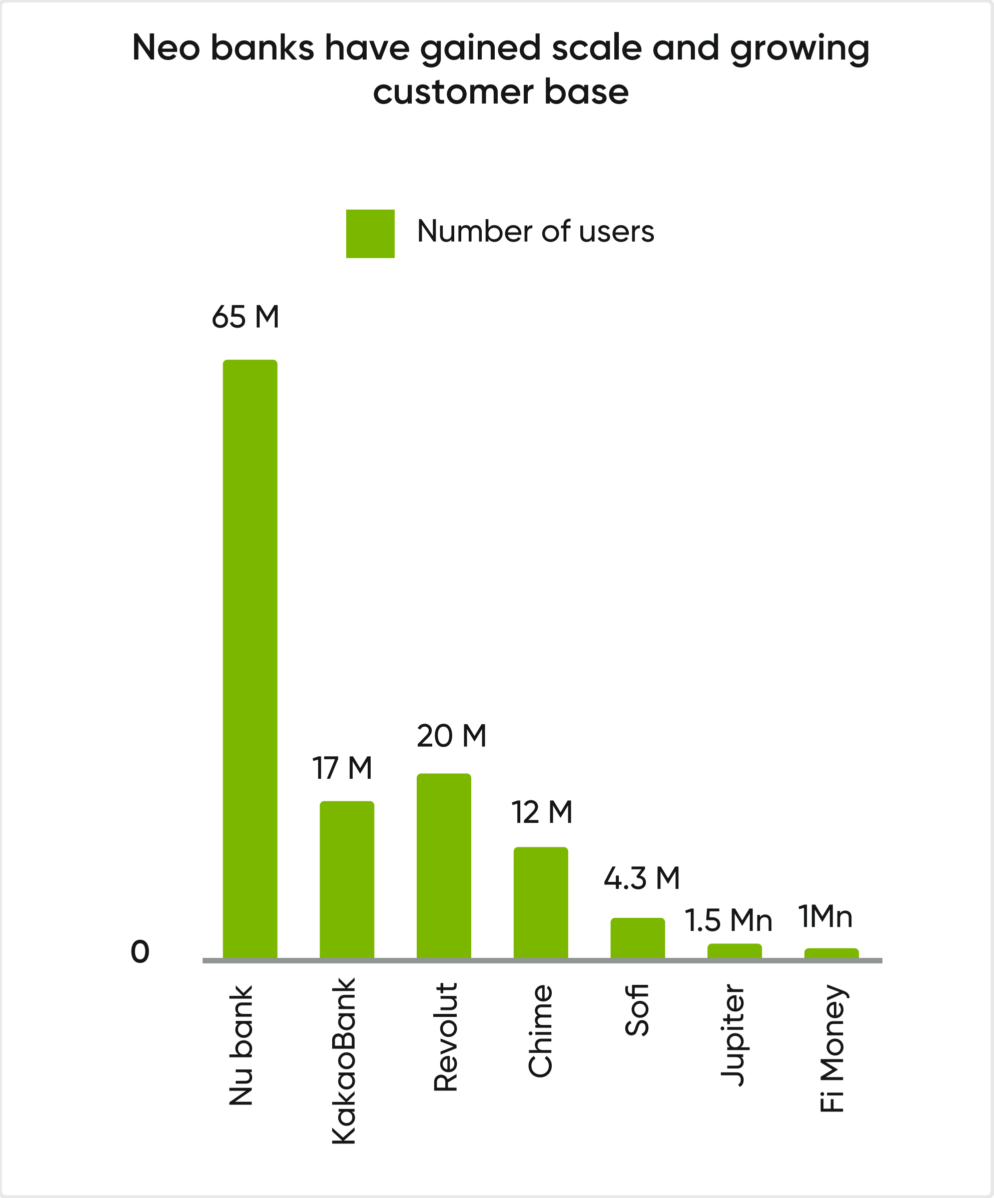
- Wealth-techs are focused on driving monetization and customer retention via expanding into new assets classes.
- AAs provide additional information to wealth managers to create new products.
- Given players like Paytm offering free services, Monetization of investing platforms has become a challenge for existing start-ups in the wealth space.
- New Age companies are looking to foray in manufacturing given minimal margins in distribution and advisory.
- Other than for the largest discount brokerages, profitability in the space is not visible on the horizon.

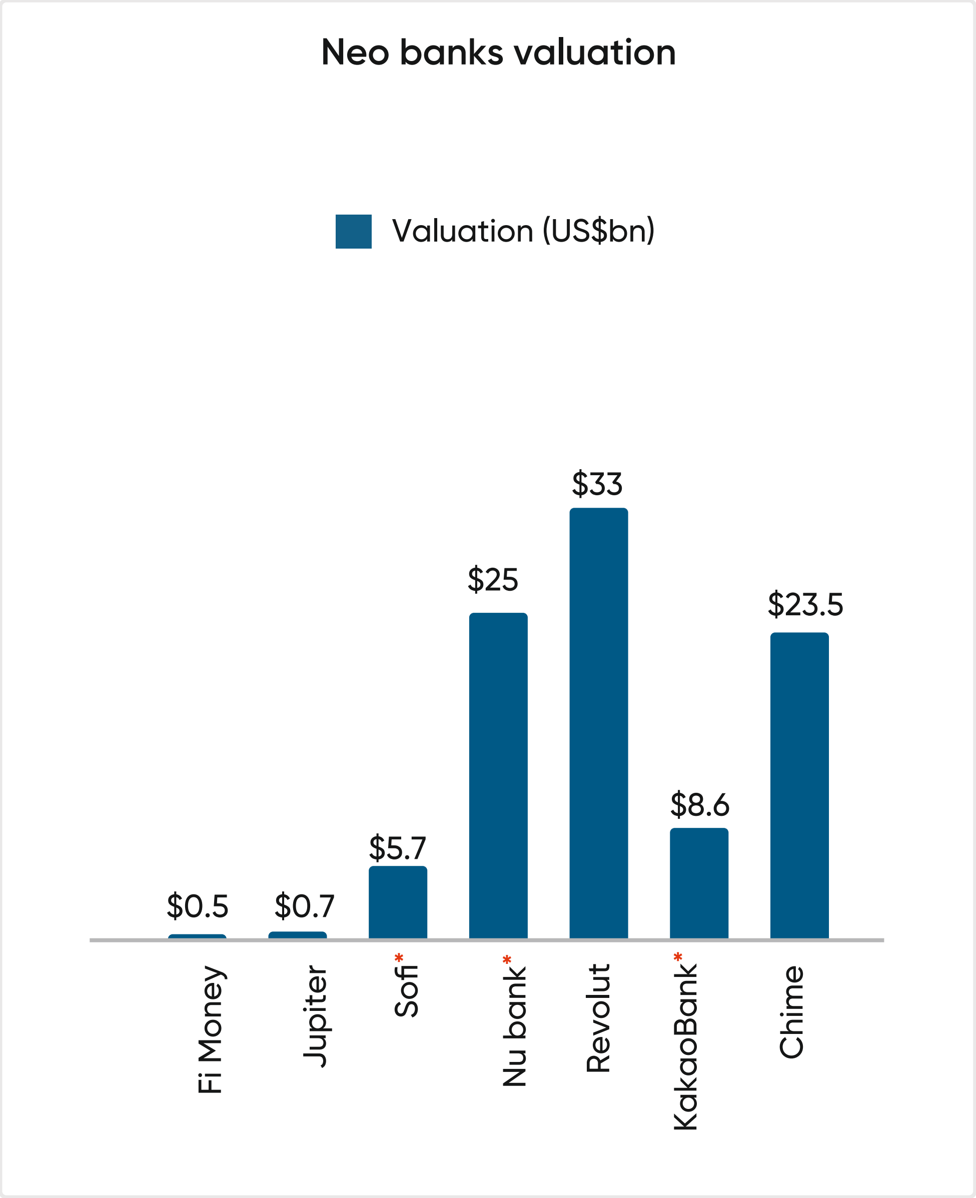
NeoBanks



Source: Tracxn, Varanium Research

Global NeoBank Landascape





*Nu Bank, Kakao Bank, Sofi are listed companies

Source: News Articles, Stock Exchanges

Many countries have introduced separate digital banking licenses

No separate digital banking license issued

GERMANY
Kontist | Fidor Bank I Bitwala

INDIA
Jupiter | Fi I Niyo | Open

USA
Ally Bank I Chime
NBKC Bank I SoFi

FRANCE
Nickel I Orange Bank
Hello Bank

CHINA
MYBank I WeBank
XWBank I Suning Bank

Separate digital banking license issued

MALAYSIA
Boost-RHB Bank I
GXS Bank-Kuok Brothers
KAF Investment Bank

HONG KONG
Airstar Bank I Mox Bank
Ant Group I WeLab Bank

TAIWAN
Rakuten Bank I Line Bank

SOUTH KOREA
Kakao bank I
Toss K bank

AUSTRALIA
86 400 I Volt I Up

SINGAPORE
Grab-SingTel I SEA Ltd
Ant Group

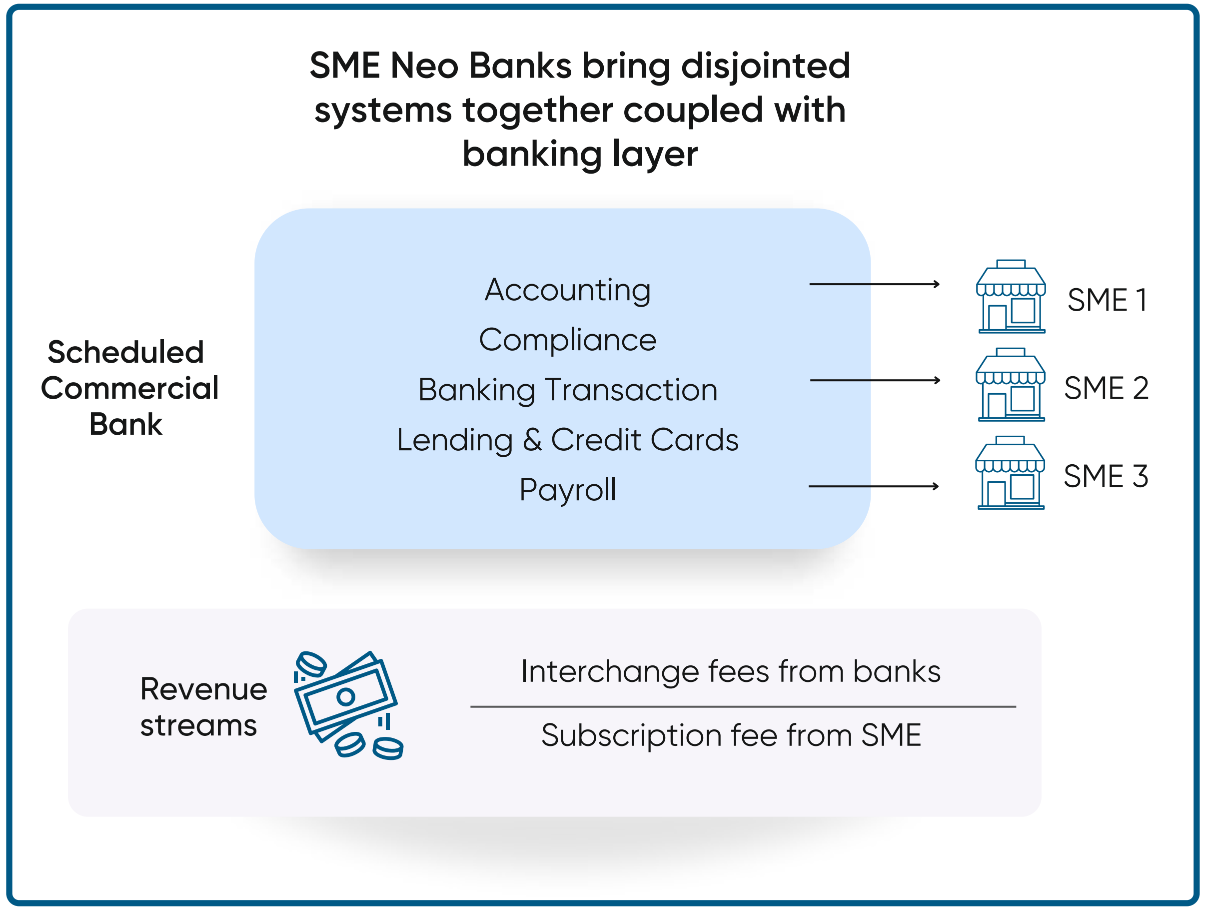
Source: SOFTU 2022, Varanium Research

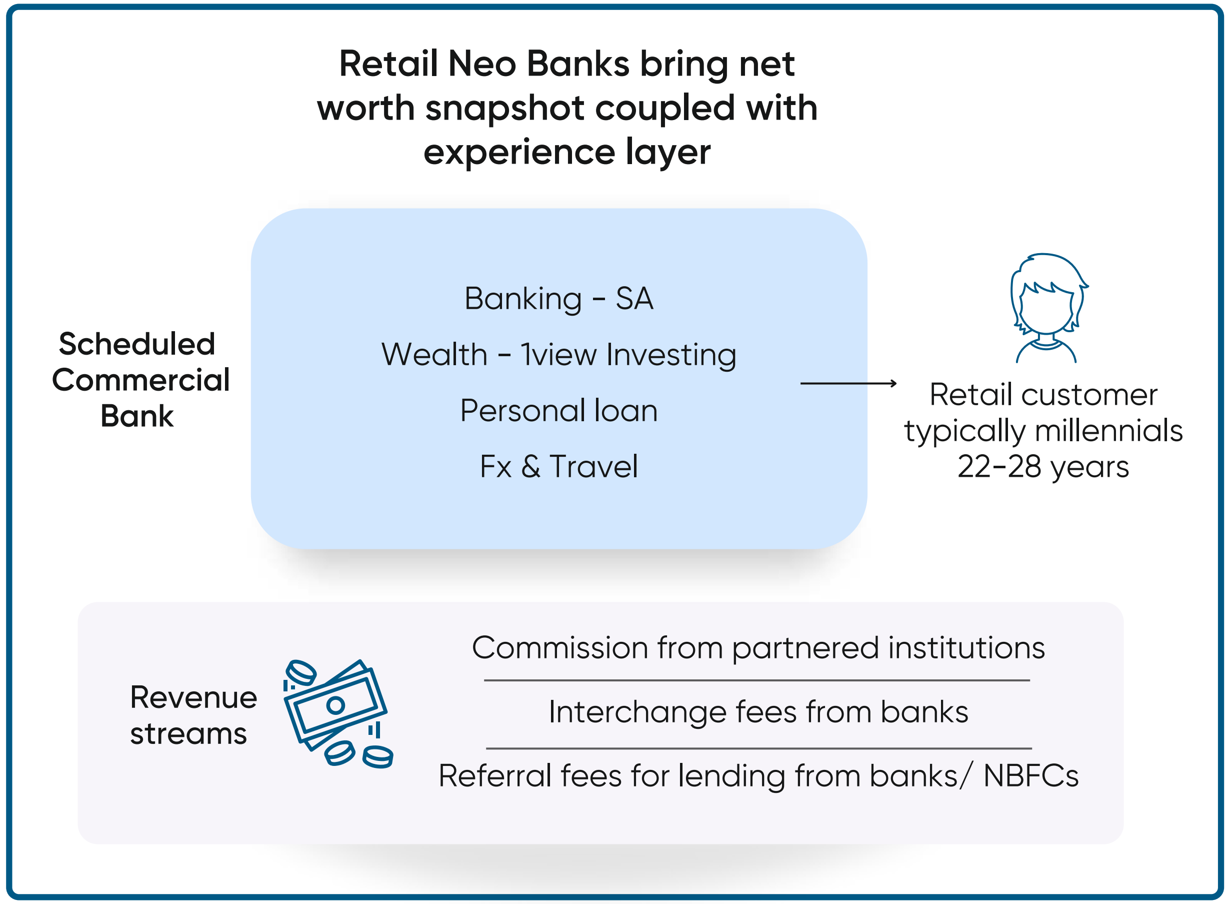
Digital banks typically have specialized lending and liability restrictions

	Singapore	South Korea	Australia	Malaysia
License types for digital bank	Two types or licenses: 1. Digital Full bank (DFB) 2. Digital Wholesale bank (DWB)	Digital Banking License	Restricted Banking License	Digital Banking License
Requirements for Digital Licensing	DFB: Paid up capital of SGD 1.5B DWB: Paid-up capital of SGD 100 Mn	Min. capital requirement of KRW 25 billion	Min. capital requirement > AUD 3 Mn+resolution reserve(-1 Mn) OR 20% of adjusted assets	Initial min, paid-up capital of RM100 Mn, RM300 Mn after 5th yr
Lending Restrictions (Additional over Traditional Banks)	Unsecured lending capped at 2x of monthly income & simple product offerings for 1-2 yrs	Enhancing competition and efficiency, customer convenience	Total asset capped at $100M Lending limited to low risk products	Asset Capped at RMB 3 Bn for 5 yrs Target Customer Segments to be unserved/ under-served population
Lending Restrictions	No access to Physical branches Deposit Cap: Aggregate: S$5Omn Individual: S$75k	None	Deposit Cap: Aggregate: $2 Mn Individual: $250K	No access to Physical branches
Objective	Financial growth of enterprises and SMEs. cost reduction, customer convenience	Subprime Lending Targets within personal unsecured loans Recommend to develop proprietary credit scoring system, leveraging ecosystem big data	Enhancing competition and efficiency, maintain high levels of safety and stability	Address gap in the unserved & underserved segments Promote affordable access to financial solutions

Source: Credit Suisse, Rise of digital banking licenses-special report, BCG Analysis

Neo Banks Business Model in India





Indian Neo Bank Partnerships

Neo Bank / Partner	Axis Bank	Equitas SFB	Federal Bank	ICICI Bank	Kotak Bank	RBL Bank	SBM Bank	Yes Bank	Other NBFCS
Fi			✓						
Jupiter			✓						
Open	✓	✓		✓	✓		✓	✓	
RazorPay X / RazorPay Capital						✓	✓		✓

Source: Varanium Research, Jefferies

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Different entry points for Neo Banks

Retail NeoBanks

- Personal Finance Management (PFM) Focused: Jupiter, Fi
- Crossborder: hop, Niyo
- NRI Focused: SB NRI, Zolve
- Teenager Focused: Fyp
- Social Payments: PayNav
- Health Focused: CARE NEO The Digital Health Bank
- HNI Focussed: letter
- Family Focused: CoCo
- Couple Focussed: fibbl
- Young professionals: Shelf
- Women Focussed: Lxme
- Senior Citizen Focused: LONGEVITY CARD
- Dairy Focussed: DGV DIGIVRIDDHI

SME Neo Banks

- Accounting & Invoicing Focused: chqbook.com, open
- Payment & Connected Banking Driven: Razorpay, nupay, ZIKZUK AN SME'S NEOBANK, Vanghee, Instantpay
- Gig Economy & Freelancers: nemo, lance
- Cooperative Banks: OneStack

Retail NeoBanks SME Neo Banks

Source: Varanium Research

Regulatory Guidelines for Digital Banking License

NITI Aayog has recommended a three-step process for licensing of Digital Banks

Restricted Digital Banking License

↓

Regulatory Sandbox

↓

Full-stack Digital Banking License

RBI Governor in June, 2022 indicated that central bank currently has no plans for issuing digital-only bank licenses.

Conditions for a Digital Banking license

Minimum paid-up capital	• Restricted Phase: Rs 200m • Restricted Digital Business bank operating in a regulatory sandbox Proportionate to the status of restrictions (offering relaxations along the dimension of financial soundness) • Full-stack Digital Business bank (upon progression from the sandbox): Rs 2bn, in-line with requirement for SFBs
Track record & Potential Applicant Pool	• An established track record for one/ more controlling persons of the applicant entity in adjacent industries such as e-commerce, payments, technology • The option to apply in consortium as is with other licenses like Payment banks, NUEs • Existing neo-banks seeking to upgrade or SFBs/ other regulated entities (e.g. incumbent banks) to also be potential applicants
Equal Access to the Infrastructure Enablers	• Access to all the key infrastructure enablers like Aadhaar e-KYC / Credit information Companies, UPI • (NPCI) / Central Payment Systems (NEFT/ RTGS), ATM schemes, DICGC, AA ecosystem
Phased relaxation of Business Restrictions	• Progressive relaxation of restrictions (in terms of asset and deposit size and / or number of customers • serviced), contingent upon satisfactory performance on agreed metrics till the exit from the sandbox to operate as a "Full Stack Digital Business bank"
Prudential / Liquidity risk regulation	• Identical for both Digital Business banks (progressed to full license) and the incumbent commercial banks (compliance with with relevant thresholds for CAR, risk weights, LCR, etc.)
Technological Risk regulation	• Ex ante technological preparedness (industry-grade certifications, attendant audits, Board-level policies for cybersecurity risks) • Ex post business continuity planning
Technological neutrality	• The Digital Business Bank license and the ambient regulation should be technologically agnostic
Products and services	• Restricted Phase: Standard banking services (Loans / CA / business banking / FDs to MSMEs/ Factoring / Distribution), subject to asset and deposit limits • Fully Licensed Stage: Above plus other products at scale and without restrictions • Additionally, Digital business banks may be allowed to engage in non-financial business complementary to their core financial business (subject to there being no prudential risk)

Source: NITI Aayog, Varanium Research, Jefferies

Regulatory Guidelines of Digital Banking Units

A DBU is a specialized fixed point business unit/hub housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally, in both self-service and assisted mode at any time, all year round, according to the RBI.

In Union Budget 2022-23, the Hon. Finance Minister Nirmala Sitharaman announced the setting up of 75 digital banking units in 75 districts

Liability Products and Services

- Account Opening: Saving Bank account under various schemes, Current account, Fixed deposit and Recurring deposit account
- Digital Kit for customers: Mobile Banking, Internet Banking, Debit Card, Credit card and mass transit system cards
- Digital Kit for Merchants: UPI QR code, BHIM Aadhaar, POS, etc.

Asset Products and Services

- Making applications for and onboarding of customer for identified retail, MSME or schematic loans. This may also include end to end digital processing of such loans, starting from online application to disbursal
- Identified Government sponsored schemes which are covered under the National Portal.

Digital Services

- Cash withdrawal and Cash Deposit only through ATM and Cash Deposit Machines respectively-no physical cash acceptance/disbursal across counters
- Passbook printing / Statement Generation
- Internet Banking Kiosk which may also include facilities to provide all/majority of services available on internet banking including indent and issuance/processing of Cheque Book request, receipt and online processing of various standing instructions of clients
- Transfer of funds (NEFT/IMPS support)
- Updation of KYC / other personal details, etc.
- Lodging of grievance digitally and acknowledgement thereof and also tracking of resolution status
- Account Opening Kiosk
- Kiosk with e-KYC/ Video KYC
- Digital onboarding of customers for schemes such APY, Insurance onboarding for PMJJBY) and PMSBY.

Knowledge Partner: Cyril Amarchand Mangaldas

Source: RBI

Potential impact of regulations on Indian Neobanks

- Neo banks that are currently aligned to narrow financial services may have greater certainty in the roadmap towards diversification to a full suite of banking services if a clear regulatory framework is introduced (such as the framework proposed by NITI Aayog in its July 2022 Report) that sets out the scope of permissible activities that may be undertaken and steps involved in obtaining a full license.

- In the event that the draft RBI Master Direction on Outsourcing of IT Services (issued in June 2022) is brought into effect, there will be greater regulatory scrutiny on regulated entities interfacing with third-party service providers providing IT/ IT-enabled services to regulated entities. As the draft Master Direction is meant to apply widely to different categories of regulated entities, it may impose compliance burdens on neo banks in their arrangements with IT/ IT-es service providers for the product delivery (to the extent they may be covered), both during onboarding of third-party service providers and on a continuous basis.

- A review of 'Digital Banking Units' operations could also serve as the basis for further enabling regulatory changes concerning virtual branches/ banks. A clear legal and regulatory framework governing digital banks could aid financial inclusion objectives, particularly as neo banks may look to target underserved segments of the economy, including MSMEs, by offering services not only limited to banking but also other functionalities such as opening and managing the current account, payment gateways, automated accounting, invoice preparation, tax returns, etc. through integrated digital platforms.

- The framework for entry and licensing of digital banks could present positive competition for traditional financial institutions, resulting in benefits for the consumer and downward pressure on service costs.

- Periodic supervision by regulators at the early stages of neo banks through institutionalized sandbox arrangements will ensure greater adherence to compliance.

Insights

- Seamless onboarding and frictionless customer journey are a major value proposition for customers.
- Building an assets-first franchise is possible for Neobanks as India is a credit-starved market.
- There is no consensus between regulators for issuance of digital bank licenses.
- Current structure where retail Neo-Bank platforms have to partner with incumbent banks, doesn't help them to fully leverage the opportunity of their platforms due to limited revenue potential, obsolescence of partner bank's tech infrastructure and high cost of capital..
- A plethora of Neo-Banks trying to enter the market addressing micro- segments of the consumer market may have higher mortality.
- SME Neo-banks are offering integrated business operating systems and improving cross sell of bank products and consequently capturing higher share of wallet of SMEs.

About Varanium

Global Multi-Asset Boutique Asset Manager
Focused on Emerging Market Strategies, India In particular

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Appendix

I. PAYMENTS

(i) Revised regulatory framework for credit cards, debit cards, and charge cards

The Reserve Bank of India (RBI) (Credit Card and Debit Card – Issuance and Conduct) Directions, 2022, was issued in April 2022 and took effect from July 1, 2022.[1] The Directions (i) introduced new definitions and sought to provide clarity on commonly used terms including credit cards and credit limits; (ii) have outlined the scope of co-branding arrangements and the roles of card-issuers more clearly; and (iii) have sought to strengthen consumer protection for cardholders.

While non-banking financial companies (NBFCs) were allowed to seek prior approval to undertake credit card business earlier as well, NBFCs were not granted permission to undertake credit card business, except for a few legacy entities. The view has been that NBFCs need to have good governance practices, sound risk management systems, robust IT systems etc., in the absence of which, concerns relating to NBFCs undertaking credit card business would always remain. It is now possible that the RBI may consider such requests from NBFCs on a case-to-case basis, based on their supervisory track record, robust governance and compliance, sound financial performance, and other relevant factors. Once the scale-based regulations for NBFCs become operational in October this year, it is likely that some of the NBFCs, such as those in the upper layer, as identified by the RBI, may be examined for permission to undertake credit card business. These NBFCs would be subject to more bank-like regulations relating to governance, exposure norms, Internal Capital Adequacy Assessment Process etc.

The Master Directions have brought greater regulatory focus on a sector already beleaguered with compliance issues. The RBI's attempt to provide clarity on the term 'credit cards', could now cover certain buy now pay later (BNPL) business models. BNPL products that operate as a payment instrument that carries a means of identification (of the user), and providing a pre-approved revolving credit limit are now likely to be treated as credit cards. The definition of credit card definition could give rise to a differentiated regulatory treatment between different kinds of BNPL products – depending on the form of the BNPL offering and its potential to fall within the definition of credit cards, while in effect the different BNPL products on either side of the definition may be functionally similar. The RBI's directives on disclosures related to revenue-sharing between co-branding partners could adversely affect market behaviour and competition among card-issuers.

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[1] Pursuant to RBI circular dated June 21, 2022 titled 'Extension of timeline for implementation of certain provisions of Master Direction – Credit Card and Debit Card – Issuance and Conduct Directions, 2022', implementation of the following provisions was extended to October 1, 2022:
(i) Paragraph 6(a)(vi) - Card-issuers shall seek One Time Password (OTP) based consent from the cardholder for activating a credit card, if the same has not been activated by the customer for more than 30 days from the date of issuance. If no consent is received for activating the card, card-issuers shall close the credit card account without any cost to the customer within seven working days from date of seeking confirmation from the customer.
(ii) Paragraph 6(b)(v) - Card-issuers shall ensure that the credit limit as sanctioned and advised to the cardholder is not breached at any point in time without seeking explicit consent from the cardholder.
(iii) Paragraph 9(b)(ii) - No capitalization of unpaid charges/levies/taxes for charging/ compounding of interest.

(ii) RBI Payments Vision 2025

The RBI has published the 'Payments Vision 2025' with a view to build on the recent success in the digital payments space in India and the successful implementation of Payments Vision 2021. More than 30+ measures out of the total 35 measures identified by the RBI in its previous Vision Document have been partially or fully implemented.
The RBI has centered the Payments Vision 2025 on the core theme of e-payments for everyone, everywhere, everytime (4 Es), with a vision to provide every user with safe, secure, fast, convenient, accessible, and affordable e-payment options. Payments Vision 2025 also leverages India's efforts and progresses the G-20 agenda to enhance cross-border payments by addressing the four key challenges of cost, speed, access and transparency.

The proposals under the Payments Vision 2025 may lead to:

(i) Technology/ IT-related impact – for example, proposals to facilitate framework for Internet-of-Things based payments, migration of all RBI-operated payment system messages to ISO 20022 standard, expansion of the Central Payments Fraud Information Registry (CPFIR), alternative authentication mechanisms, local processing of payments etc.
(ii) Revenue implications – for example, proposals to evaluate charges for all payment systems, linkage of credit and credit components of banking products to UPI, review of Payment Infrastructure Development Fund Scheme etc.
(iii) Operational/ regulatory compliance implications – for example, proposals to increase proportionate oversight of PSOs, constitution of Payments Advisory Council, review of the Payment and Settlement Systems Act, 2007, customer outreach and awareness activities etc.

(iii) Restrictions on loading of PPIs through credit lines

The RBI issued clarifications to authorised non-bank prepaid payment instrument (PPI) issuers on June 20, 2022 that PPIs may not be loaded from credit lines, and any such practice should be stopped immediately. While PPIs issued by non-bank entities were being funded through debits to bank accounts, debit cards and credit cards, clarity eluded such entities on their ability/power to use credit to bank accounts (through overdraft facilities/ credit lines) to fund PPIs. The current clarification restricts funding from credit lines, while continuing to allow PPIs to be funded through credit cards. This was disruptive to several fintech entities offering Buy-Now-Pay-Later (BNPL) products, specifically non-bank PPI issuers who pre-fund PPIs through proceeds availed from credit lines offered by NBFCs.

These restrictions have been further impacted by the RBI circular on August 10, 2022 implementing recommendations of the Working Group on Digital Lending, which now requires RBI-regulated entities to only make loan disbursements in the bank account of the borrower. Notably, the recommendation of the Working Group on Digital Lending to permit loan disbursements into fully KYC-compliant PPIs in cases where the borrowers only had a PPI account and no bank account, has not been accepted.

(iv) Card on file tokenization

The RBI has repeatedly taken cognizance of risks arising out of card data like card number, expiry date, CVV et. al. of customers being stored on various online platforms and applications, to progress tokenization mandatorily. On July 28, 2022, the RBI has confirmed that all entities other than card issuers and card networks must purge card-on-file (COF) data before October 1, 2022 and that this decision has been taken after detailed discussions with stakeholders. The RBI has stated that in case of non-compliance, appropriate penal action, including imposition of business restrictions, may be considered.

The RBI has however, permitted the below for entities as an interim measure only in respect of transactions where the cardholders are entering card details manually at the time of undertaking the transaction (i.e., guest checkout transactions):

(i) Other than the card issuer and the card network, the merchant or its Payment Aggregator (PA) involved in settlement of such transactions can save the CoF data for a maximum period of T+4 days ("T" being the transaction date) or till the settlement date, whichever is earlier. This data shall be used only for settlement of such transactions, and must be purged thereafter;
(ii) For handling other post-transaction activities, acquiring banks can continue to store CoF data until January 31, 2023.

(V) Approvals for transactions involving payment system operators

On July 4, 2022, the RBI issued clarifications to all banks and non-bank payment system operators **(PSOs)** that its prior approval would be required for any (a) takeover/ acquisition of control, which may or may not result in change of management; and (b) sale/ transfer of payment activity to an entity not authorised for undertaking similar activities.

This clarifications impacts the approaches to, and considerations involving M&A in the PSO space, which includes global card networks, MTSS players, PPI/ wallets, payment aggregators, white label ATMs, TReDS platforms, BBPOUs, instant money transfer operators etc. Prior to the issuance of the clarifications, PSOs were required to only intimate the RBI upon a change of control, usually within 15 days. Transferring entities are now required to make an application to the Department of Payment and Settlement Systems (DPSS).

II. REGULATIONS: DIGITAL LENDING

Implementation of recommendations of the RBI-constituted Working Group on Digital Lending and issuance of the Guidelines on Digital Lending

The Working Group on Digital Lending (RBI WG), constituted by the RBI had published its Report in November 2021. It had made recommendations on (i) the legal and regulatory framework for digital lending; (ii) technology-related aspects; and (iii) financial consumer protection, implementable over the near-term (up to one year) and medium-term (beyond one year).

On August 10, 2022,[1] the RBI announced the implementation of certain recommendations made by the RBI WG. While some recommendations have been accepted for implementation with immediate effect, other recommendations have been categorized as requiring further examination, although accepted in-principle. The RBI has also categorized certain recommendations as requiring wider engagement with the Government of India and relevant stakeholders in the digital lending ecosystem, in view of the operational challenges and complexities in their implementation. Some of the key suggestions accepted by RBI include:

- All loan servicing, repayment, and other processes are to be executed directly in the bank accounts of customers, without any pass-through account/ third-party pool account. In this regard, only limited exceptions have been provided, including disbursals covered under statutory and regulatory mandates, and flow of money between regulated entities (REs) for co-lending transactions. Unlike the RBI's circular on 'Loading of PPIs through Credit Lines' issued on June 20, 2022, to authorised non-bank PPI issuers, the Circular makes no distinction basis the nature of funding. Permissibility of check-out financing products enabled through PPIs, whether loaded through credit lines/ term loans, may accordingly be impacted. In addition, the wide stipulation under the Circular may also impact BNPL products, involving direct settlement of transactions through credit disbursement to merchants.
- RBI has sought to address the long-standing risk of under-reporting of credit default data for loans originated through digital lending applications (DLAs). REs are now required to disclose any lending through DLAs to credit information companies, independent of the nature and tenor of the product.
- REs are required to ensure that all data is stored in servers located within India while ensuring compliance with statutory obligations/ regulatory instructions. This may include an obligation on REs to also ensure that the LSPs store the relevant data only within India.
- REs to ensure that digitally-signed documents through DLAs of the RE/ LSP, including (i) Key Fact Statement (KFS); (ii) product summary; (iii) sanction letter; (iv) terms and conditions; (v) account statements; (vi) privacy policies of LSPs etc., are sent to registered/ verified email/ SMS of the borrower upon execution.

On September 2, 2022, the RBI released the Guidelines on Digital Lending (DL Guidelines), which are meant to apply to existing customers availing fresh loans and to new customers, while time until November 30, 2022 has been provided to REs to ensure that existing digital loans are in compliance with the DL Guidelines. Pursuant to the DL Guidelines, the following compliance requirements arise:

- Prescribed documents should be digitally signed and flow automatically to the borrowers on digital loan registration, with email/ SMS verification upon loan execution. This has raised a debate in the industry as to whether the prescribed 'digital signature' requirements under the IT Act, 2000, are required to be followed.
- REs are required to assess the creditworthiness of prospective borrowers in an auditable manner.

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[1] Recommendations of the Working group on Digital Lending – Implementation, Reserve Bank of India, August 10, 2022, available here

- Borrower to be given an option to exit the digital loan by paying the principal and pro-rate interest, without any penalty, during a Board-prescribed cooling-off period.
- Data collection should be 'need-based', basis express borrower consent with audit trail. While one-time access has been permitted at time of onboarding/ KYC with express borrower consent, REs are to ensure that digital lending applications (DLAs) desist from accessing mobile phone resources like file, media, contact list, call logs, telephony functions etc. Detailed data protection/ privacy, storage, privacy policy and technology-related provisions have been prescribed.

In a modification of the August 10, 2022 Press Release by the RBI, the DL Guidelines acknowledge the industry practice of offering FLDGs, where a third-party guarantees to compensate REs partially in the event of any default in credit repayment. However, the DL Guidelines 'advise' REs to adhere to the RBI (Securitisation of Standard Assets) Directions, 2021 (Securitisation Directions), especially synthetic securitisation provisions. This is raising multiple industry questions, including (i) is FLDG by third-parties banned; (ii) is the RBI 'advise' mandatory or is it just a recommendation; and (iii) if mandatory, the extent of compliance needed with the Securitisation Directions.

While this move by RBI has raised some concerns in the industry, the RBI has introduced key guardrails with respect to borrower protection which will build credibility in the digital lending space. The approach of the RBI to 'regulate, not prohibit' is a welcome step and will ensure that innovation and investment in the burgeoning FinTech/ TechFin sector in India may continue, subject to compliance with consumer protection, corporate governance, and credit reporting standards.

III. INSURTECH

The growth and advancement of technology has led to a cascading impact on the financial services industry, including insurance. The Insurance Regulatory and Development Authority of India (IRDAI) is continuously engaging with the stakeholders of the insurance industry in order to set out a reforms agenda for increasing insurance penetration and facilitating sustainable growth of the industry. These reforms, among others, include promoting ease of doing business by encouraging new insurance players, allowing niche players in insurance, relaxing renewal norms for intermediaries, product certification by insurers, time-bound approvals, administrative flexibility, fast-track approvals for investment proposals, facilitating InsurTech and distribution agility.[1]

The main critical themes shaping the InsurTech industry are: emergence of new customers segments, importance of higher distribution penetration and reach, criticality of enhanced customer experience, data and analytics as core capabilities and further emphasis on health insurance through the National Health Stack i.e. a nationally shared digital infrastructure usable by both Centre and State across public and private sectors to bring a holistic view across multiple health verticals and enable rapid creation of diverse solutions in health.[2]

Regulatory sandbox

In continuation of the insurance reforms agenda, the IRDAI and International Financial Services Centres Authority (IFSCA) signed a memorandum of understanding to specifically strengthen the inter regulatory exchange of information, technical cooperation, supervisory collaboration and opens avenues towards developing innovative insurance solutions for the evolving global trends. It specifically enables the mechanism for Inter Operable Regulatory Sandbox (Regulatory Sandbox), a mechanism to facilitate testing of innovative hybrid financial products/services falling within the regulatory ambit of more than one financial sector regulators to facilitate Indian InsurTech start-ups to explore foreign jurisdiction and vice versa.[3]

This Regulatory Sandbox is a unique platform for all eligible entities operating in the insurance sector to engage with IRDAI to discuss the regime that will foster innovation, promote the growth of insurance in India, and create an enabling platform to enhance customer experience. It is also crucial to note that IRDAI has been empowered to relax the applicability of any regulations, guidelines or circulars issued by the authority to give effect to the applications under Regulatory Sandbox, however, no relaxation can be provided under Insurance Act, 1958 or IRDA Act, 1999 or other applicable statutes.[4]

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[1] Press Note: India@100- Insurance for All, IRDAI, May 6, 2022, available here
[2] India Insurtech Landscape and Trends, Boston Consulting Group, April 25, 2022, available here
[3] Press Release : IFSCA inks MOU with IRDAI, available here
[4] Section 12 of IRDAI (Regulatory Sandbox) Regulations, 2019, as amended from time to time, available here.

As many as three cohorts of Regulatory Sandbox have been conducted by IRDAI till date in which a total of 173 applications were filed in the first cohort and 185 applications in the second cohort with the authority, indicating the growth potential of the insurance sector. The applications covered concepts such as wellness, wearables, group insurance, usage based insurance, loyalty / rewards programmes, electronic platforms, KYC onboarding, distribution, products, etc.[5] For instance, Pay How You Use (PHYU)/ Pay As You Use (PAYU) policies for insurance of a private car was one of the pilot projects by ICICI Lombard General Insurance Company under the first cohort of regulatory sandbox.[6] Considering the successful clearance of the same under the Regulatory Sandbox and as a step towards facilitating technology enabled covers, IRDAI has recently permitted general insurance companies[7] to launch pay-as-you-drive/pay-how-you-drive motor insurance policies with premiums linked to mileage and quality of driving.

[5] IRDAI Annual Report 2020-21, available here
[6] Pay as you use care insurance, ICICI Lombard, available here
[7] Press Release: Sophisticated Add On sot Motor- Own Damage Policy , IRDAI, July 6, 2022, available here

IV. INVESTECH

(i) SEBI framework for Gold Exchanges in India

The Securities and Exchange Board of India (SEBI) issued a framework for operationalizing Gold Exchanges in India on January 10, 2022. This followed the Government of India notifying 'electronic gold receipts' (EGRs) as securities under Section 2(h)(iia) of the Securities Contracts (Regulation) Act, 1956 and the issuance of the SEBI (Vault Managers) Regulations, 2021 in December 2021.

Pursuant to the SEBI framework, stock exchanges may apply to SEBI for approval of trading of EGRs in a new segment. There are three tranches for trading in EGRs:

(i) Creation of EGRs;

(ii) Trading of EGRs on stock exchanges; and

(iii) Conversion of EGR into physical gold.

By implementing a framework to regulate the conduct of intermediaries involved in the trading of EGRs and the processes involved, SEBI has brought in regulatory certainty to EGRs.

(ii) Guidelines for seeking NOC by Stock Brokers / Clearing Members for setting up Wholly Owned Subsidiaries, Step Down Subsidiaries, Joint Ventures in GIFT IFSC

SEBI issued guidelines for stock brokers and clearing members to rationalise and streamline the application process for granting No-Objection Certificates (NOCs) for setting up Wholly Owned Subsidiaries, Step Down Subsidiaries, Joint Ventures, etc. in GIFT IFSC on May 13, 2022.

SEBI has specified the format of application along with list of supporting documents for seeking NOC for setting up Wholly Owned Subsidiaries, Step Down Subsidiaries or entering into Joint Ventures in GIFT IFSC. The SEBI guidelines also require stock brokers and clearing members to apply through a Stock Exchange where the applicant is a member, along with the required information, documents and NOC received from all Stock Exchanges/Clearing Corporations/Depositories in which the applicant is a member/ participant. Further, SEBI has directed Stock Exchanges / Clearing Corporations (where the applicant is only clearing member) to forward the complete application to SEBI, after verification along with its recommendation.

(iii) Procedure for seeking prior approval for change in control of portfolio managers

Portfolio Managers are required to obtain prior approval of SEBI in case of change in control in cases specified by SEBI as per Regulation 11(aa) of SEBI (Portfolio Managers) Regulations, 2020. The regulator had specified the procedure for obtaining such approval via a circular dated May 12, 2021. To streamline this process further, SEBI has modified this procedure through a circular dated June 02, 2022 which will be applicable from June 15, 2022.

As per the new procedure, an application for prior approval has to be made online through the SEBI Intermediary Portal by a Portfolio Manager in case of a change in control specified by SEBI for approval. The prior approval granted by SEBI will be valid for a period of six months and applications for fresh registration pursuant to change in control will have to be made to SEBI within 6 (six) months from the date of prior approval. The Portfolio Manager also has to inform its existing investors/clients about the proposed change prior to effecting the same and give an option to exit without any exit load within at least 30 (thirty) days from the date of such communication.

In matters involving scheme(s) of arrangement which need sanction of NCLT, the Portfolio Manager must ensure that:

(i) The application seeking approval for the proposed change in control is filed with SEBI prior to filing with NCLT; and the upon being satisfied with the applicable regulatory compliance, SEBI shall grant an in-principle approval which shall be valid for 3 (three) months within which the relevant application has to be made to NCLT.
(ii) Within 15 (fifteen) days from the date of NCLT order, the Portfolio Manager must submit an online application to SEBI for final approval along with the copy of the NCLT Order approving the scheme; copy of the approved scheme; statement explaining modifications, if any, in the approved scheme vis-à-vis the draft scheme and the reasons for the same; and details of compliance with the conditions/observations mentioned in SEBI's in-principle approval.
These modifications are intended to enable existing investors/clients to take well informed decision regarding their continuance or otherwise with the changed management. It also allows both SEBI and the NCLT to incorporate their opinions for the change effectively through one common procedure.

V. NEOBANKS

The Reserve Bank of India (RBI) does not separately recognize a licensing framework for digital banks, digital-first banks or banks that predominantly offer their services through digital channels. Incumbent financial institutions including scheduled commercial banks and NBFCs presently offer digital banking services through:
(i) in-house business unit or through reliance on white-labelling (where software and digital solutions developed by another company may be licensed and offered by the banks under its own banner); and
(ii) partnerships with fintechs and other service providers

Improvements in digital infrastructure and technology (including in e-KYC, cloud computing, artificial intelligence and machine learning), penetration and increased affordability of mobile phones, access to faster communication networks and services (including mobile internet services) and evolving customer expectations have all spurred demand for digital financial services. This has led to incumbent financial institutions as well as fintechs, techfins, and bigtechs all aiming to efficiently use technology to meet growing customer demand for financial services.

While the Reserve Bank of India (RBI) does not have a separate framework for delivery of the full suite of banking services through digital channels, it has indicated that a review of the role played by physical branches is continuously needed as digitization of banking services has obviated the need to physically visit a branch for banking services.[1] The RBI provides some flexibility in respect of 'payment banks', by relaxing norms for such entities from maintaining a base branch for a certain number of banking correspondents (as is the case for scheduled commercial banks).[2]

However, there are also restrictions on the banking services that such entities may offer to customers: in respect of payment banks, only savings and current deposit accounts that, on aggregate, do not exceed INR 1,00,000 may be opened.[3] Any deposits in excess of such amounts are required to be swept into an account maintained by the payment bank with a scheduled commercial bank or a small finance bank. In India, there may be benefits for digital-only banking models as they may cater to traditionally underserved segments of the economy, by offering services not only limited to banking but also other functionalities such as opening and managing current account, payment gateways, automated accounting, invoice preparation, tax returns etc. through integrated digital platforms.

NITI Aayog Report on 'Digital Banks: A Proposal for Licensing and Regulatory Regime for India'

In furtherance of the policy of differentiated banking licenses, the NITI Aayog Report envisages two kinds of digital banking licenses: (i) a digital business bank license; and (ii) a digital consumer bank license. Digital business banks have been described as those that will benefit from both banking and value-added commercial services, such as payroll services, accounts receivables/ payables management, tax compliance, and other SAAS. Digital business banks will therefore have permission to engage in non-financial business complementary to their core financial business, subject to there not being any related prudential risks. It appears to be that digital business banks may look to engage more with fintech/ techfin players who do not have licenses to undertake banking operations, through arrangements (also known as Banking-as-a-Service or BAAS). Digital consumer banks must be allowed to engage in non-financial business activities that are unique to the retail consumer segment it is targeting. Digital consumer banks are more likely to be customer-facing.

The NITI Aayog Report recommends three steps for the operation of a digital bank:

Step 1: Applicants must seek to acquire either a restricted digital business bank license or a restricted digital consumer bank license.

Step 2: Once the restricted license is acquired, the applicant enlists in the regulatory sandbox and commences operations as a digital business bank or a digital consumer bank as the case may be. During this time, the applicants may benefit from relaxations from certain legal and regulatory provisions, as may be specified.
The applicant will also be assessed against pre-determined parameters or metrics identified by the RBI and the applicant. These could be cost to acquire a customer, volume/ value of credit disbursed to MSMEs, technological preparedness, compliance levels etc.

Step 3: Based on satisfactory performance of the applicant, a full scale digital bank license (either for a digital business bank or a digital consumer bank) may be given.
While the RBI may elect to rely on the NITI Aayog Paper in terms of approach towards licensing and regulating neo-banks, the extent of any modifications or departure from this remains to be seen.

[1] Paragraph 20, Banking Landscape in the 21st Century, Address by Shri Shaktikanta Das, Governor, Reserve Bank of India at the Mint's Annual Banking Conclave, 2020 on February 24, 2020.
[2] Paragraph 6.2, Operating Guidelines for Payments Banks, DBR.NBD.No.25/16.13.218/2016-17 dated October 6, 2016.
[3] Paragraph 7(i), Operating Guidelines for Payments Banks, DBR.NBD.No.25/16.13.218/2016-17 dated October 6, 2016

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