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# **Financial Inclusion in India Inching Close to the Last Mile**

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## I. Introduction

Financial inclusion in India has seen a paradigm shift since 2014 with the introduction of *JAM Trinity* encompassing Jan Dhan Yojana (PMJDY) for universal banking access for all, Aadhaar for unique biometric identification, and mobile services for direct transfers. Further, the Digital India campaign launched in 2015 proved significant for roping the unbanked population into the mainstream economic system with a formal financial net that was earlier at the fringes.

The comprehensive approach laid the foundation for flourishing digital financial architecture which could help people and businesses sail through the turbulence owing to lockdowns and restricted mobility during the COVID-19 pandemic in 2020-21. Further, it pushed close to 80 million adults to make their first digital merchant payment during the pandemic (World Bank, 2021). Despite a significant leapfrogging in the area of digital payments, the hurdles of last-mile connectivity and lower usage of financial products and services remain a focal point around the discourse on financial inclusion.

The present paper gauges the current landscape of financial inclusion in India with an overview of trends and drivers on broad financial instruments and the progress made so far on the three broadly accepted dimensions of financial inclusion i.e., access, usage, and quality; particularly involving the individuals and the households amidst dynamic headways in the financial ecosystem in India and also highlights the various facets of reforms undertaken to overcome the challenges on the way since the digitalization push. It also underlines the gaps in terms of inter-state variability in delivery and makes suggestions on the road ahead.

*Section 2* provides a snapshot of the performance on the dimensions of financial inclusion in India using previous research on indices of financial inclusion aimed at the quantification of parameters and identification of lagging areas. *Section 3* brings to the fore the state of financial inclusion among individuals and households using domestic data on aspects like ownership of bank accounts, savings, availability of credit, uptake of insurance, and pension. These indicators are examined in light of support for the various government schemes and initiatives taken to promote the said indicators of financial inclusion. *Section 4* highlights the positive spillovers of the digitalization push to financial inclusion which is further bolstered by the COVID-19 pandemic since 2020. *Section 5* concludes by making recommendations based on the identified gaps.

## 2. Financial Inclusion: Where Does India Stand?

The construct has been attempted to be defined in a multitude of ways. According to the World Bank – “Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs delivered responsibly and sustainably.” The Rangarajan committee (2008) defines it as “the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost”. In a broad sense, it can be viewed as individuals’ involvement with the financial system where they can access cost-effective means of managing their financial lives—borrowing, spending, saving, and investing while being able to protect their financial well-being through insurance.

Financial inclusion is a process than an end itself where individuals can adapt to the evolving trends and nature of financial products and services at their disposal. Financial instruments could be viewed as contracts that result in one entity having a financial asset and another having a financial obligation or equity investment (Staszkiwicz and Staszkiwicz, 2015). They are designed to allow market participants to trade cash flows with various risk characteristics. And attributes. These range from savings account deposits, insurance, credit, and equity to payments, savings, credit, and insurance, etc.

Policymakers globally have turned to financial inclusion as a broader policy perspective entailing financial development over the decades. The overwhelming light drawn by the subject is attributed to the plethora of evidence that shows that individuals or households with greater financial inclusion experience ripple effects not just through sound financial health but also with better performance on human development (Sarma and Pais, 2011; Nanda and Kaur, 2016), other socio-economic indicators like poverty (Kumar, 2012), inequality (Inoue, 2019), women empowerment (Ojo, 2022) where income and education have shown to bear heavily on the ability to access financial services (Demirgüç-Kunt and Klapper, 2013).

In India, nascent steps towards the agenda of access involved the promotion of cooperatives, bank nationalization, and various lead bank schemes. Formally, financial inclusion acquired a space in policy drafts after being included in the Rangarajan Committee in 2008. Further, to bridge the rural-urban divide and to serve the vulnerable population groups in rural areas, the brick-mortar structure of banking was pushed to ensure the coverage of the unbanked in the ambit of the formal financial system. The Business Correspondent (BC) Model of banking in tandem with rapid technological advancements in low-cost biometric applications and core banking solutions enabled the wider provision of financial services which helped significantly in bringing the unbanked into the formal channels of the financial system. Further, RBI since 2010 has emphasized financial inclusion plans for various public and private banks. Initiatives like simpler KYC norms and simplified branch authorization policies have been taken.

A decade and a half later, the Indian banking and financial system has leapfrogged with technology-driven alternatives and has benefitted a significant chunk of the population through Direct Benefit Transfers (DBTs). Since 2015, new forms of banks were introduced like differentiated banks, payments banks, and small finance banks with targeted objectives for

tailored deposit products for various sections of the population like farmers, low-income households, small businesses, etc. From mobile banking to mobile money and innovative payment mechanisms which have been discussed extensively in section 4.

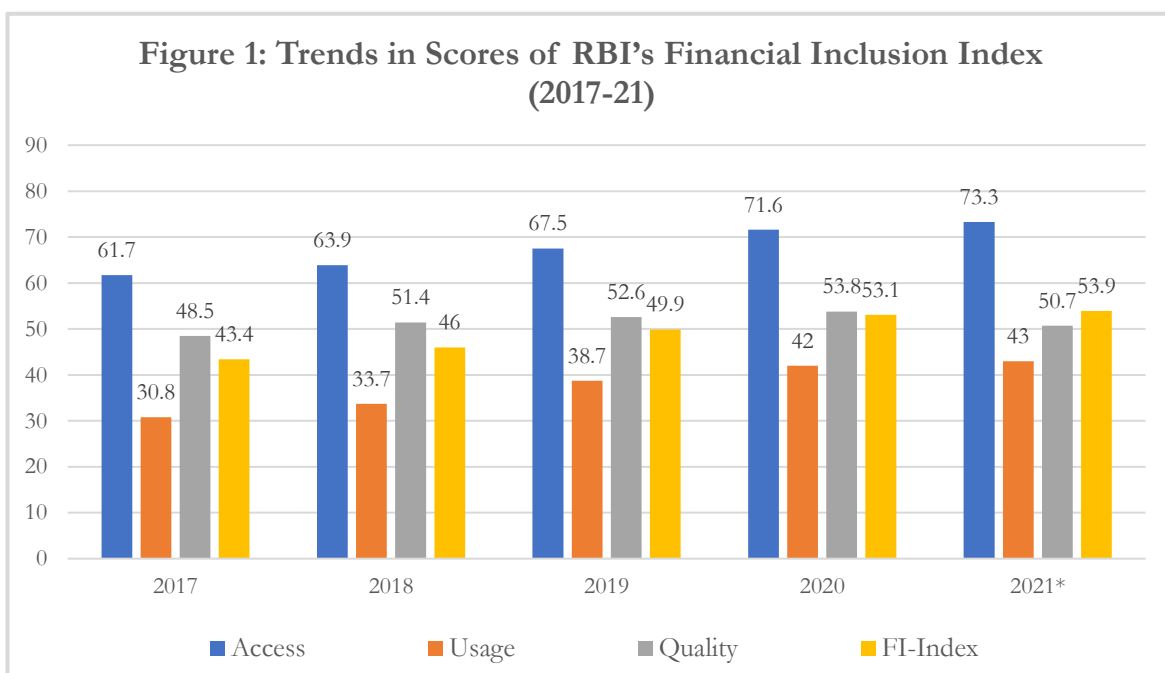
Financial inclusion broadly encompasses three dimensions- *access, usage, and quality*. The *access* aspect emphasizes the supply of financial infrastructure and services to the people (individuals, households, and enterprises) which when scaled up eases the process of mainstreaming the take-up of services. Many of the access indicators identified so far include the number of outlets for banking including BCs, NBFCs, and post offices, etc., the total number of savings accounts including small savings, points of service (number of bank branches per 1000 adults, number of ATMs per 1000 sq. km), e-money accounts for digital payments, etc. the JAM ecosystem, all type of cards and e-payment infrastructure, subscription base of various pension schemes and offices and agents of life and non-life insurance, etc.

Utilization, or the demand side dimension, measures how actively financial infrastructure is used in terms of savings, investments, insurance, availability of credit from banks and non-banks, use of retail digital payments, penetration of insurance (life and non-life), and participation in various pension plans, remittances, etc.

The last dimension i.e., *quality* covers areas like cost-of-service access, financial literacy, fraud prevention, consumer protection, etc. that emphasizes sustainable adoption and continued usage of the financial products and services particularly emphasizing on the individual.

Also, the indicators vary across countries and contexts in terms of specific relevance to the national and regional context. For instance, the G20 financial inclusion indicators globally include the cost of usage in terms of opening a bank account, cost of credit transfers (collateral requirements), ease of credit access, interoperability of points of service, mobile payments, dispute resolution, and financial literacy among the end users as some of the benchmark indicators for financial inclusion in addition to the traditionally accepted indicators mentioned previously.

Researchers have devised indices to measure and quantify financial inclusion in India (Sarma, 2008; Gupte et al., 2012; Goel and Sharma, 2017) and around the world (Dienillah et al., 2018; Cicchiello et al., 2021). In 2021, the Reserve Bank of India introduced the index of financial inclusion that captured information on various aspects of financial inclusion ranging from 0 to 100 with a weightage of Access (35%), Usage (45%), and Quality (20%). With an increasing overall index score standing at 53.9 in 2021, figure 1 highlights that the access dimension has received higher scores consistently over the years reaching a maximum of 73.3 in 2021. This has been corroborated by the World Bank's 2021 financial inclusion report that from 35% in 2011 to 78% in 2021, account ownership has more than doubled in the last ten years. Particularly, between 2014 and 2017, account ownership in India increased by 27 percentage points compared to 8 percentage points in developing economies (Demirguc-Kunt et al., 2021). It reflects the consistent efforts by the Government to improve access around the nation. What is particularly intriguing is that the usage dimension is lagging significantly with a score of 43 in 2021, an aspect that would be dealt with in section 5.1.



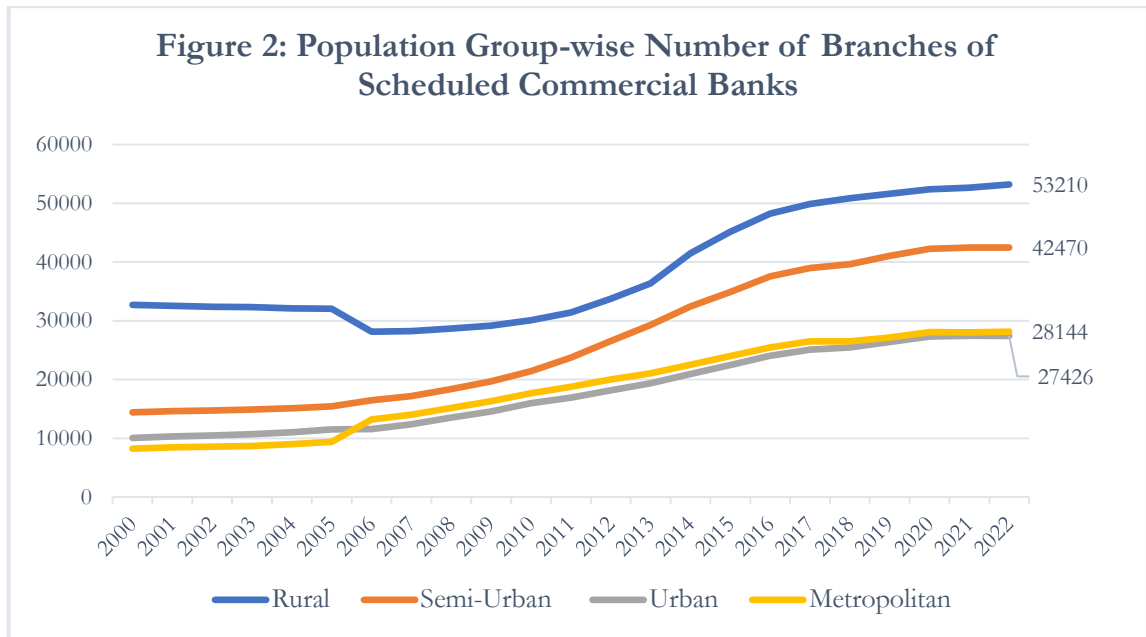
(Source: RBI)

## 2.1. Performance on Access

The traditionally considered access indicators for cross-country comparisons based on IMF's Financial Access Survey 2021 are summarised in table A1 (annex) which reveals that commercial bank branches in India both in terms of per 1000 km<sup>2</sup> and per 100000 population stand at 51 and 15 respectively which is much higher than the peer fast-growing economies like China and Indonesia. Whereas India has 75 ATMs per 1000 km<sup>2</sup> which is much lower than China (101) and Bangladesh (108) while ATMs per 100000 population stand at 21 as compared to China (81), Indonesia (48), and Mexico (62). In comparison to the developed nations like the US, Australia, and Canada the commercial bank branches are widespread in India in terms of per 1000 km<sup>2</sup> but the commercial bank branches access per 100000 adults is still very low.

The domestic data released by RBI in September 2022 brings to the fore the numbers on bank branches for scheduled commercial banks which shows a significant rise in the setting up of such branches since 2000. Figure 2 shows the number of bank branches population-wise, where rural and semi-urban areas have the largest number of Scheduled Commercial Banks (SCBs) to cater to a wider rural population. The value is primarily driven by the growth in the number of bank outlets, FBCs, total savings accounts, post offices, subscribers to mutual funds (MFs), JAM ecosystem, offices for insurance, Prepaid Payment Instrument (PPI) issuers, and Point of Sale (PoS) terminals, among other things, over the years and more recently.





(Source: RBI Handbook of Statistics on Indian Economy 2021-22)

Further, the bank branches in villages have seen a very sharp increase of 60% from 2010 to 2021 whereas the banking correspondents for villages with a population > 2000 increased from 8,390 to 15,18,496 during the same period<sup>1</sup>. These statistics corroborate the strides in financial access aimed at the supply of financial products and services.

<sup>1</sup> IV. Credit delivery and financial inclusion, RBI annual report 2021-22

### 3. Usage of Financial Products and Services among Individuals and Households

The objective of financial inclusion is achieved among households in the event of sustained '*usage*' concerning various financial products and services. The provision of financial products is primarily dependent on the evolution of the financial ecosystem whereas the usage aspect in addition to that is intertwined with contexts like behavior pertaining to adoption through overcoming barriers of perception, cost, beliefs, trust, security, and lack of knowledge and awareness. Therefore, these need to be addressed to achieve financial inclusion and the financial well-being of individuals.

The data from the World Bank survey 2021 in figure 3 provides an overview of the usage of financial instruments and services by individuals. It reveals a significant shift toward ownership of the account in a financial institution from 35% to 77% from 2011 to 2021. A clear shift from cash-based transactions to digital transfers was observed through digital payments and receipts of digital transfers for the period 2011 to 2021 as illustrated in figure 3. It was reported that public sector wages were received digitally by 73% of the respondents, a 10-percentage point jump since the 2017 survey whereas utility payments using cash were done by 19% of the respondents. The dependence on cash has reduced considerably for making utility payments as individuals and households shifted to digital payments.

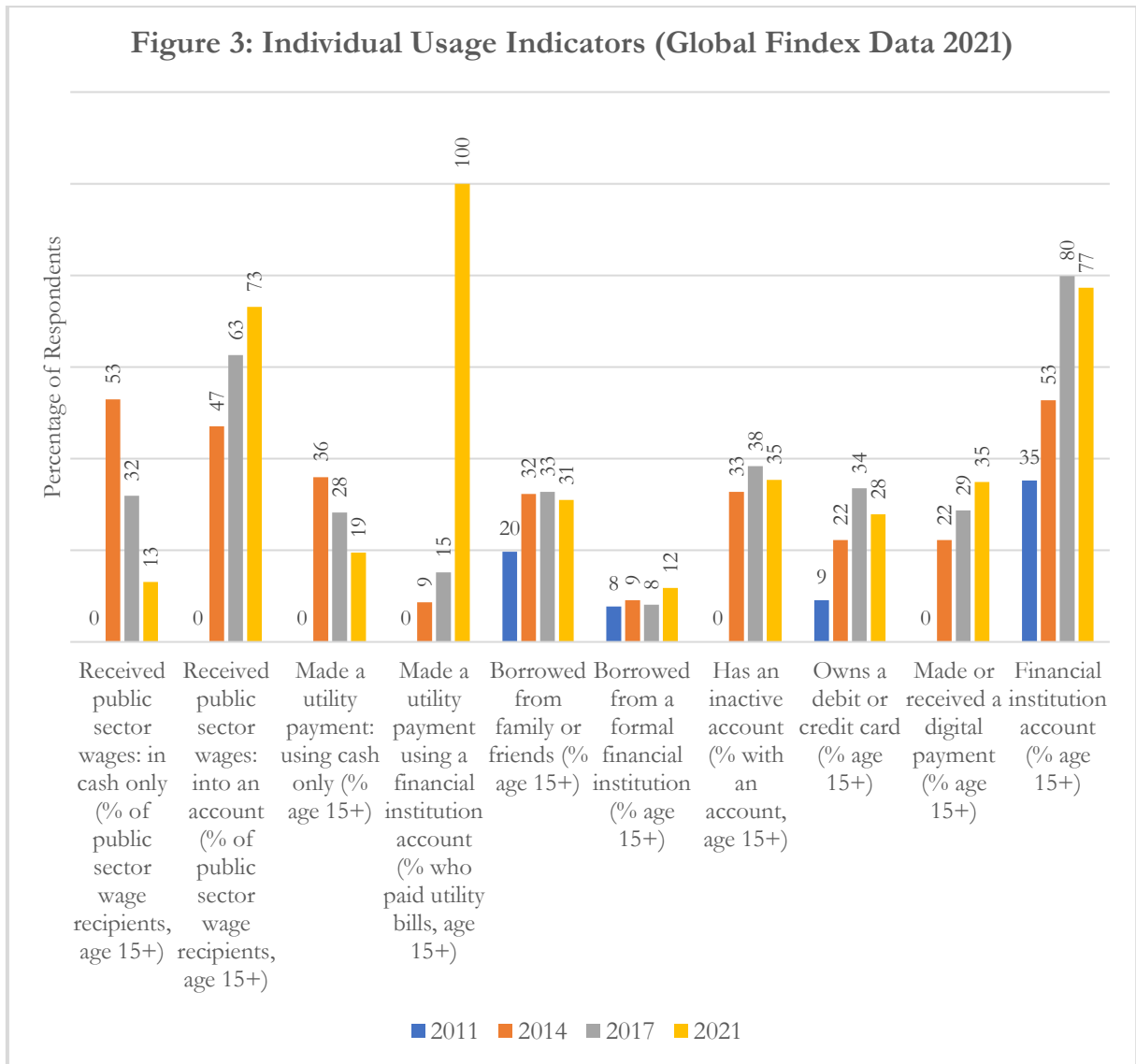
The impact of trickle-down benefits has been corroborated by the World Bank report 2021 which brings out the insignificance of a gender gap in account ownership as India bridged a gap of 22 percentage points from a decade ago.

On the other spectrum, the report also underlines that close to 33% of the accounts owners did not make transactions in 2020, and the number of individuals who had an account but did not make any digital payments was approximately 540 million in India. Some of the most common reasons among inactive account users were attributed to distance from financial institutions (49%), feeling of no requirement (46%), and trust deficit (48%). Also, it was observed that 31% of the individuals borrowed from family or friends in the last year. RBI had also listed reasons such as lack of surplus income, trust deficit, absence of suitability to customer's requirement, high transaction costs, remoteness of service provider, lack of product awareness, and poor service quality as some of the reasons for financial exclusion<sup>2</sup>.

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<sup>2</sup> <https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=1154#3>

**Figure 3: Individual Usage Indicators (Global Findex Data 2021)**

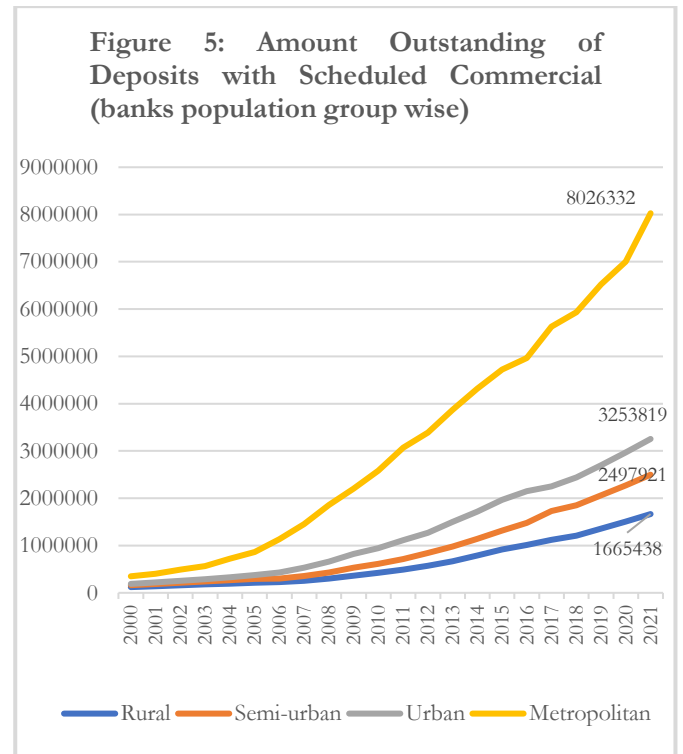
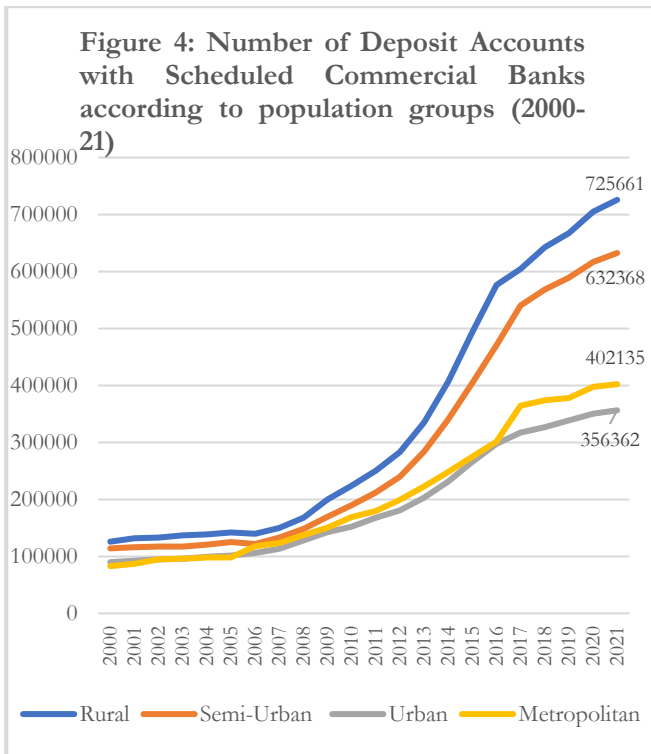


(Source: Global Findex Database 2021; Note: Data points missing for some indicators for 2011)

The following sub-sections would help to dive deep into the usage dimension in various facets like savings, credit, insurance, pensions, etc. the following sub-sections further the discussion: -

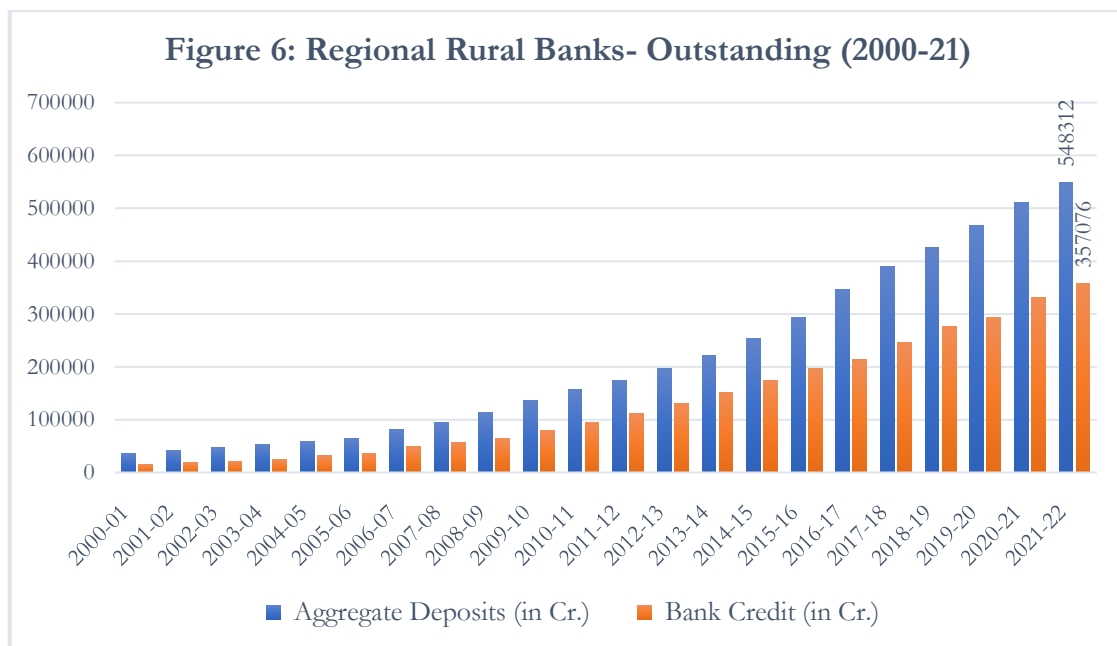
### 3.1. Ownership of Bank Accounts and Savings

The primary indicator of financial inclusion is ownership of a bank account and figure 4 highlights the growth in deposit accounts with scheduled commercial branches which indicates that the rural population covering the majority has the highest number of deposit accounts followed by semi-urban, metropolitan and urban areas whereas the amount outstanding with scheduled commercial banks (shown in figure 5) is in the reverse order with the maximum amount in the urban areas which draws attention to marginal and small savings in the rural and semi-urban areas.



(Source: RBI Handbook of Statistics on Indian Economy, 2021-22; Note: No. of accounts in Thousands, Figures in Rupees Crores)

Further, Regional Rural Banks (RRBs) have been the catalyst for leveraging financial services, credit expansion, and diversification of products and services among the rural population in India. Looking closely at the deposit and credit data of RRBs over two decades where they have witnessed a consistent increase with a rise in deposits to the tune of 9% and credit at 13% for 2020-21, the year of the pandemic over 2019-20 as shown in figure 6.



(Source: RBI Handbook of Statistics on Indian Economy, 2021-22)

It is imperative to look into some of the flagship efforts that have boosted bank account ownership and savings among individuals/households in India: -

#### a) Pradhan Mantri Jan Dhan Yojana (PMJDY)

The scheme was introduced in 2014 to ensure basic account ownership with banks or business correspondents (Bank Mitra) without balance requirements and coupled with various financial services like basic savings & deposit accounts, remittance, insurance, pension, and credit affordably. Further 'RuPay' debit cards were provided to the account holders and insurance cover of up to Rs. 1 lakh (extended to 2 lakhs on accounts opened after 28 August 2018). Table 1 shows the official data on beneficiaries where a total of 46.57 crore people has been benefitted with an average state-wise surveyed household coverage of 99.97%.

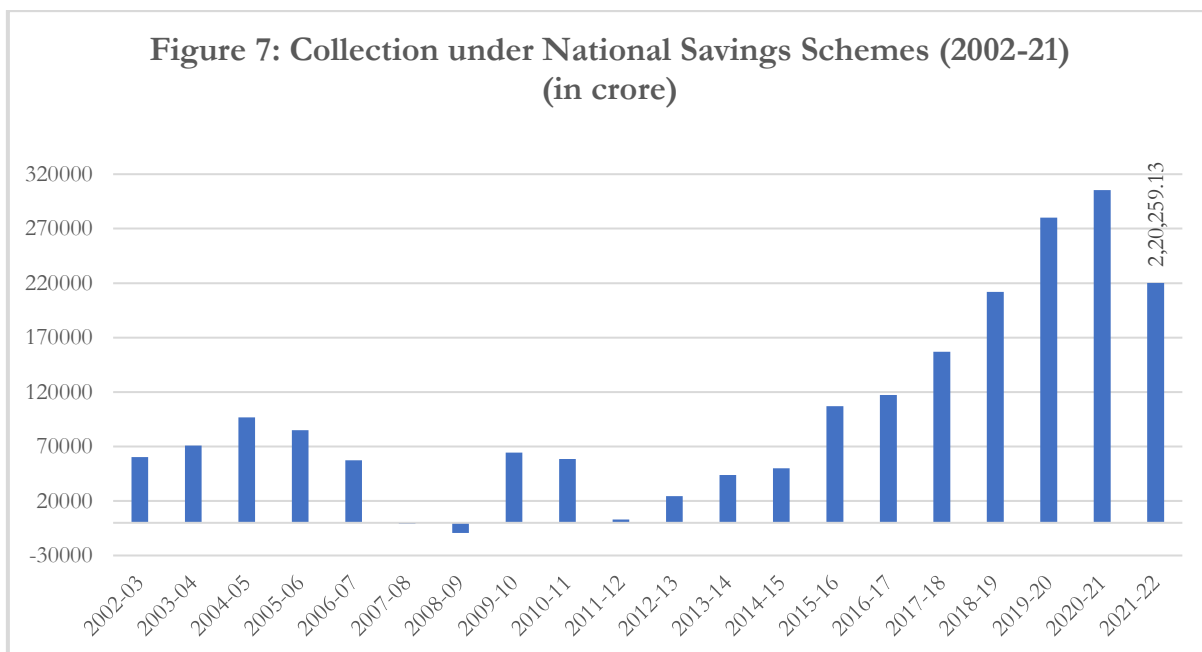
**Table 1. Data on Beneficiaries for PMJDY**

Bank Name/ Type	No. of Beneficiaries at rural/semi-urban centre bank branches	No. of Beneficiaries at urban metro centre bank branches	No. of Rural-Urban Female Beneficiaries	No. of Total Beneficiaries	Deposits in Accounts	Number of Rupay Debit Cards issued to beneficiaries
Public Sector Banks	22.97	13.66	20.19	36.64	133605.28	27.51
Regional Rural Banks	7.44	1.17	4.97	8.62	34078.66	3.41
Private Banks	0.70	0.6	0.71	1.31	4933.53	1.11
<b>Grand Total</b>	<b>31.12</b>	<b>15.44</b>	<b>25.87</b>	<b>46.56</b>	<b>172617.47</b>	<b>32.03</b>

(Source: <https://pmjdy.gov.in/account data as on 17/09/2022>; Note: Figures in Rupees Crores)

#### b) Small Savings Schemes

Various small savings scheme was introduced by the government for the promotion of risk-free government-backed saving portfolios for low- and medium-income individuals including national savings deposits account, post office savings account, Senior Citizen Savings Scheme, Kisan Vikas Patra and National Savings Certificate (NSC). Figure 7 maps the collections under NSS for 2021-22 which stand at Rs. 2,20,259.13 crore.

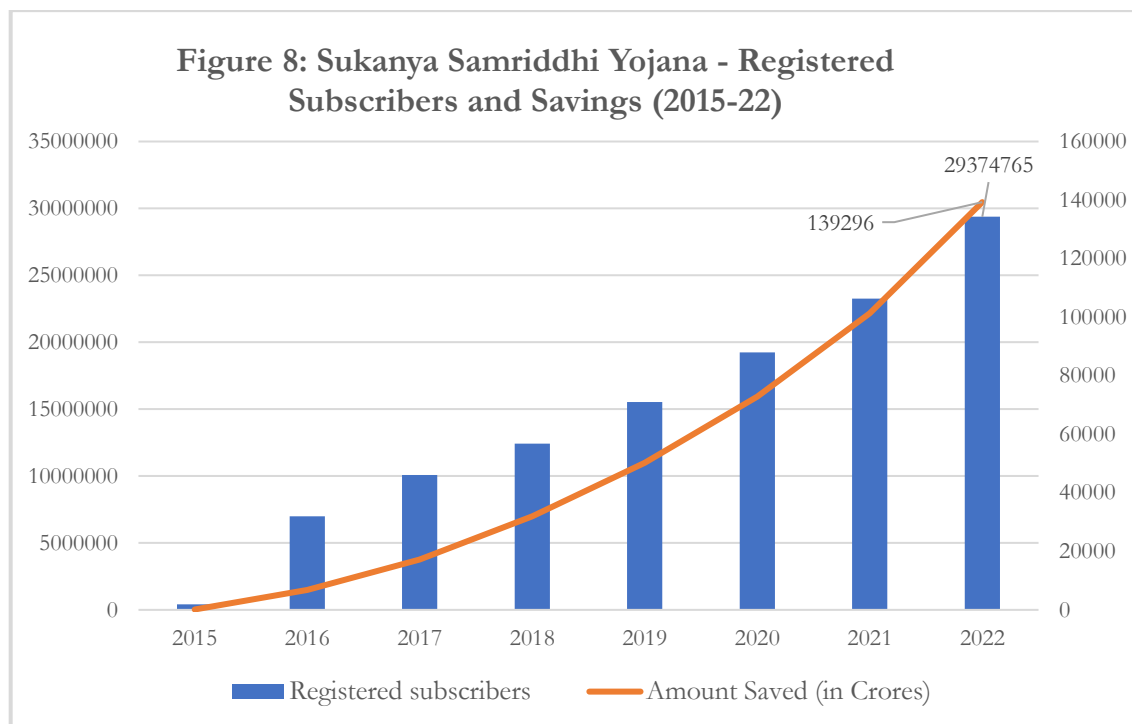


(Source: National Savings Institute; Note: Figures in Rupees Crores, 2021-22 (up to Jan 2022))

The developments in the state-by-state per capita gross private small savings collections in banks and post offices from 2001-2002 to 2017-2018 highlighted by Jain and Goli (2022) demonstrates that over the time under consideration, per capita gross collections increased significantly in all states. Himachal Pradesh has experienced the most increase in gross receipts, followed by Odisha, Kerala, Karnataka, West Bengal, Andhra Pradesh, and Maharashtra in that order.

### c) Sukanya Samriddhi Yojana

The savings scheme launched in 2015 is targeted at the accumulation of savings funds for girl children 10 years or younger by parents under the initiative of ‘Beti Bachao-Beti Pado’. With a minimum initial deposit of Rs. 1,000, a limit of up to Rs. 150,000 in a financial year, and tenure of deposit until 21 years of age of the beneficiary is a tool to accumulate a corpus for the girl child’s higher education, marriage, and other needs. Figure 8 shows the growth in subscribers and savings since the launch. Bhattacharya and Gandhi (2020) show that states like Uttarakhand, Himachal Pradesh, Goa, Tamil Nadu, and Haryana are the highest-ranking states while Nagaland, Meghalaya, Mizoram, Bihar, and Uttar Pradesh are the lowest in terms of the number of accounts and amount deposited.



(Source: National Savings Institute; Note: As of 31st March of the year)

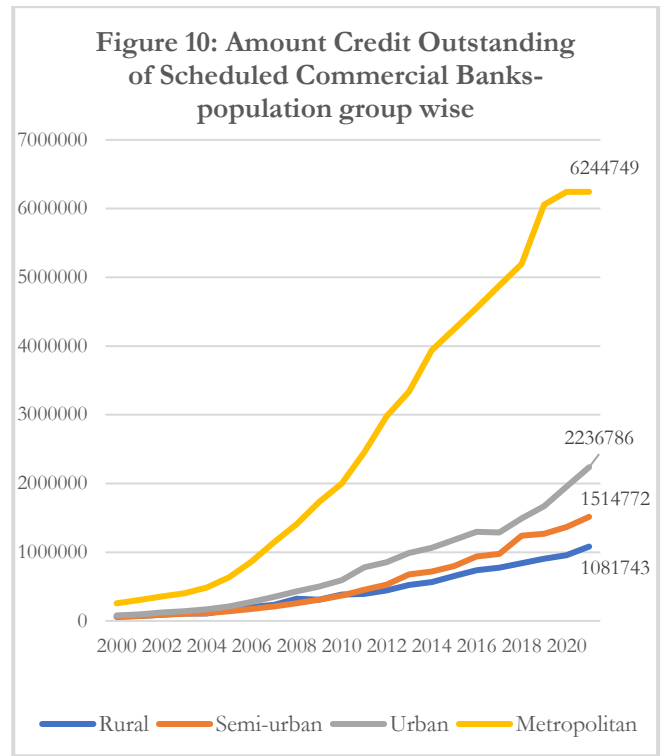
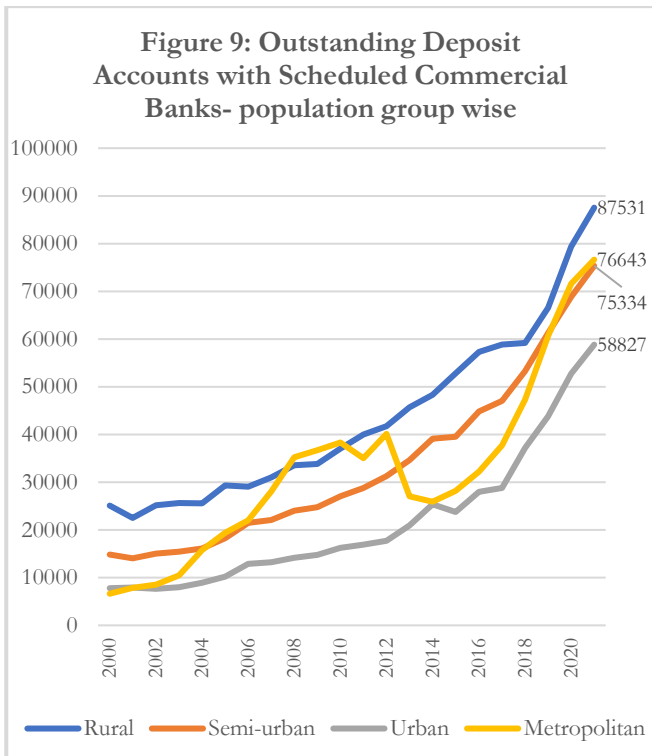
#### d) Direct Benefit Transfer

Direct Benefit Transfer (DBT) has been instrumental in the acceleration of financial inclusion as it has helped eliminate human interface and leakages in the system that ensured timely, accurate, and quality services and fund transfers to the beneficiaries. Sabherwal et al. (2019) highlighted that DBTs have enabled the strengthening of banking activity, mobility and bargaining power, particularly among women. This tool has helped immensely in the disbursal of benefits to a wide population spread geographically through 318 Government schemes like Pradhan Mantri Matratva Vandana Yojana (PMMVY) for women, Pradhan Mantri Ujjwala Yojana (PMUY) and, while others, such as the Krishi Unnati Yojana (KUY) or Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) for beneficiary bank accounts held by any gender. The total benefit transfers accruing for Rs. 6,30,264 crores for 2021-22<sup>3</sup>.

### 3.2. Credit

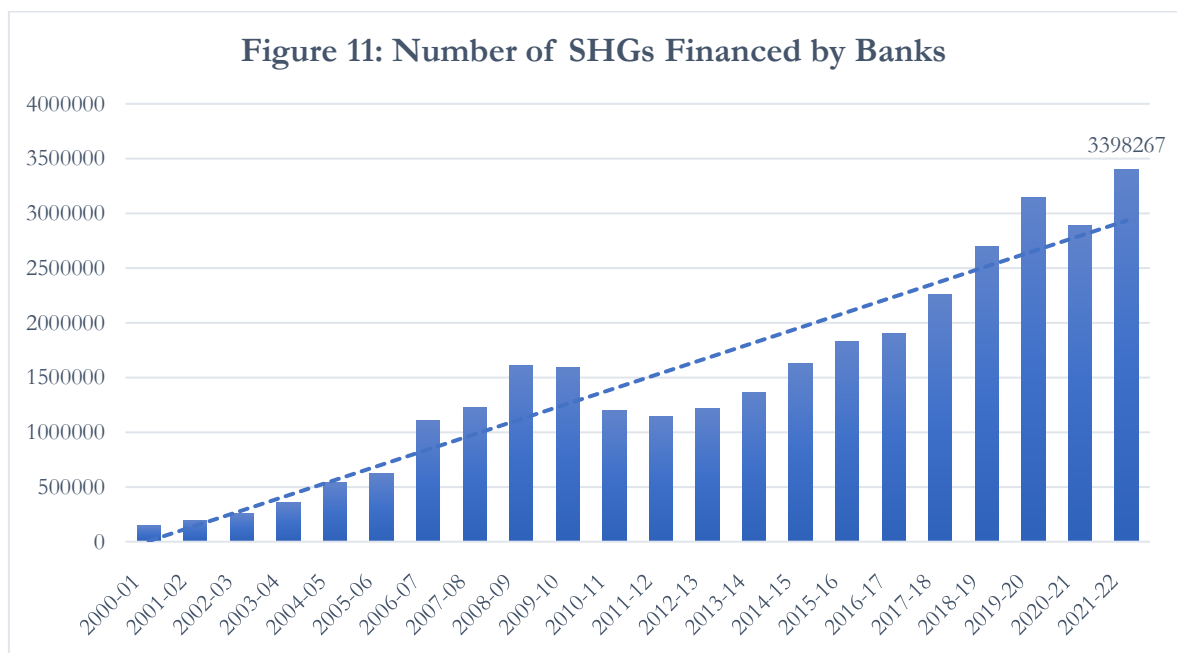
Credit can prove to be a tool of empowerment and growth with a multiplier force in case of easy and low-cost availability. Traditional banks extend credit based on parameters like credit scores or collateral, or sometimes the product design is not suited to the needs of the large segment of consumer demographics. Figure 9 and figure 10 shows the number of outstanding deposit account and outstanding credit amount with commercial banks.

<sup>3</sup> <https://dbtbharat.gov.in>



(Source: RBI Handbook of Statistics on Indian Economy 2021-22; Note: No. of accounts in Thousands, Figures in Rupees Crores)

Moreover, having more affordable credit solutions is a challenge for incentivizing businesses for scaling up the services for those with limited credit history. In such a scenario, the role of government is crucial in enabling timely and adequate access to cheaper credit and fostering a robust regulatory framework. The Self-Help Groups (SHGs) credit program has been shown to increase the take-up of loans and has substituted the use of informal credit (Hoffmann et al., 2021). Figure 11 shows the number of Self-help groups financed by banks since 2000-01 where the post-pandemic recovery is evident from 2020-21 to 2021-22.



(Source: RBI)



Some of the vital steps in the circulation of credit in the economy among diverse population groups are as follows: -

#### a) Kisan Credit Cards

Kisan Credit card scheme is aimed to provide adequate and timely credit support to the farmers for their agricultural activities at various stages of farming. For the financial year 2020-21, the total operative KCCs stand at 306.96 lakhs with a total outstanding loan amount of 4,56,736 crore. Table A2 (annex) shows the state-wise numbers on operative KCCs and the amount outstanding with distribution in line with the agricultural activities in the states with Uttar Pradesh, Karnataka, Madhya Pradesh, Maharashtra, and Rajasthan in the top states in both the criteria and states/ union territories like Goa, Sikkim, Delhi and Chandigarh with the least coverage under the scheme.

#### b) Credit to MSMEs<sup>4</sup>

According to the 2019 estimates by the RBI, the credit gap for MSMEs stood at Rs. 20-25 trillion<sup>5</sup>. Various steps have been taken to plug the credit financing gap, firstly, priority sector lending was given impetus for sectors like agriculture, micro-enterprises, weaker sections, etc. Secondly, new models have been promoted in the form of intermediaries like Loan Service Providers (LSPs), Trade Receivables Discounting System (TReDS) platforms for effective mechanisms to cater to liquidity issues, etc. Thirdly, no collateral loans for up to Rs. 10 lakhs have been mandated by the RBI guidelines 2010. Lastly, schemes like credit guarantees for the bank, NBFCS along with PM SVANidhi, MUDRA Loans, Stand Up India, etc. have helped strengthen the credit delivery system and flow of credit to underserved enterprises.

Further COVID-19 has exacerbated the liquidity constraints of the MSMEs. The credit extended to MSMEs has been summarised by data from RBI in table 2 which reflects that outstanding credit to MSMEs by SCBs increased by 13.4% in 2021-22 as compared to 10.6% a year ago while the number of accounts decreased significantly owing to mandatory registration on Udyam portal under the new MSME definition.

**Table 2. Bank Credit to MSMEs**

Year	Micro Enterprises		Small Enterprises		Medium Enterprises		MSMEs	
	No. of Accounts	Amount Outstanding	No. of Accounts	Amount Outstanding	No. of Accounts	Amount Outstanding	No. of Accounts	Amount Outstanding
2020-21	387.93	8,21,027.77	27.82	6,62,998.50	4.44	2,99,898.53	420.19	17,83,924.80
2021-22*	239.81	8,87,800.05	22.07	7,25,822.77	3.23	4,09,011.46	265.10	20,22,634.29

(Source: RBI, \* Provisional data)

<sup>4</sup> This paper for the purpose of brevity does not elaborate on the status of Micro Small Medium and Enterprises' financial inclusion (MSMEs) in the analysis for various other financial instruments and channels. But individuals/ entrepreneurs are naturally part of the MSME landscape therefore, availability of credit especially during and post COVID-19 assumes a very important role and thus is discussed in this sub section.

<sup>5</sup> <https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=924#>

### 3.3. Insurance

The insurance sector has faced lower penetration (premium as a percentage of GDP) and density in India (Ray et al., 2020). The pandemic has brought major shift in attitude towards insurance products<sup>67</sup> and expected a year-on-year growth of 6.6 % in 2022<sup>8</sup>. From 2021–2022 through the end of January 2022, life insurers' gross first-year premium climbed by 6.94%, totaling Rs. 2,27,188 crores<sup>9</sup>.

Any insurance program's success depends on clearly established procedures for payments, referrals, complaints, and quality control measures. Some of the schemes that have helped insurance reach the vulnerable population are as follows: -

#### a) Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

The 2015 program's goal is to provide coverage for death from any cause to the uninsured, especially the poor class. All bank account holders who subscribe to the plan are given a renewable 2-lakh-rupee term life insurance policy (aged 18-50). As of July 2022, 5,93,316 claims totaling 11,866 crores were paid under the scheme for an annual premium of just Rs. 436.

#### b) Pradhan Mantri Suraksha Bima Yojana (PMSBY)

To all subscribing bank holders, the PMSBY scheme provides a renewable one-year accidental death/disability cover (aged 18-70). A subscriber is eligible for a claim of Rs. 2 lakhs in case of death or whole disability and a claim of Rs. 1 lakh in case of partial disability with an annual payment of just Rs. 20 through auto debit. The PMSBY system had 24 crores cumulative enrollees as of July 2021, with 45.8% of them being women, and a total claim of Rs. 972.6 crores (US\$ 133 million).

#### c) Ayushman Bharat Yojana under PMJAY

The scheme aims to address health disparity and reduce patient health costs. It is one of the largest scale-wide healthcare schemes globally aimed at covering 50 crore individuals with coverage of up to Rs. 5 lakhs.

### 3.4. Pension

India has deliberated for a long on the development of the micro pensions market through various targeted schemes and policy initiatives. The need and demand for the same have been assessed by studies like Mukherjee and Mitchell (2017) using a field experiment, where it was found that withdrawal ages, government matching rates, and options for lumpsum withdrawals were sensitive indicators to the take-up of pension designs, particularly by the vulnerable groups.

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<sup>6</sup> <https://bfsi.economicstimes.indiatimes.com/blog/insurance-in-india-current-trends-and-whats-ahead/93525208>

<sup>7</sup> <https://www.financialexpress.com/money/insurance/from-investment-to-protection-life-insurance-trends-in-india-2022/2643853/>

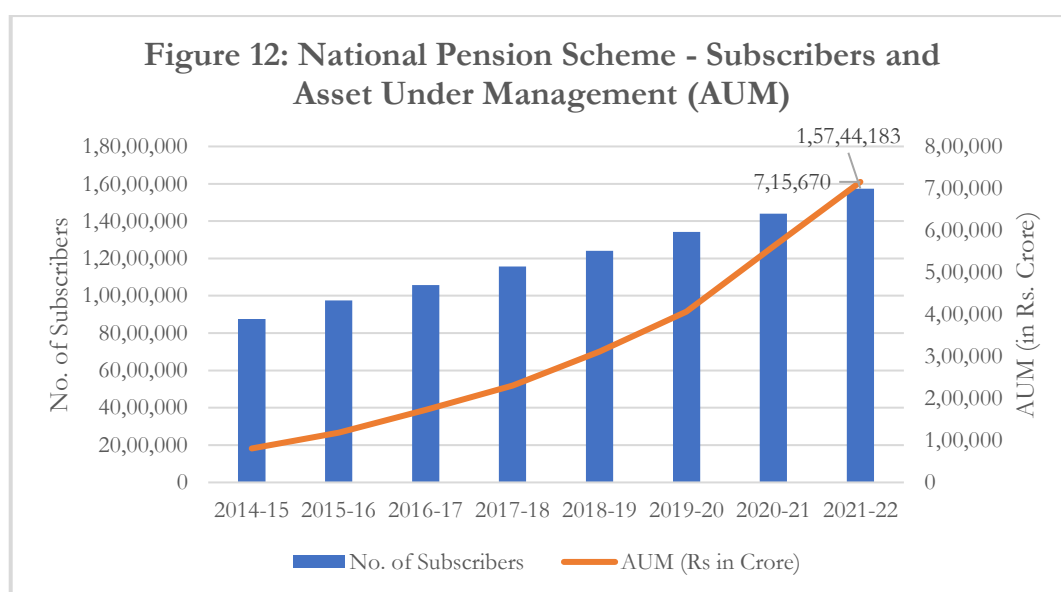
<sup>8</sup> <https://www.livemint.com/news/india/india-likely-to-become-sixth-largest-insurance-market-in-next-10-years-11662037712911.html>

<sup>9</sup> <https://www.ibef.org/industry/insurance-presentation>

The following schemes have helped old age security reach a broader spectrum of the population through various schemes: -

#### a) National Pensions Scheme (NPS)

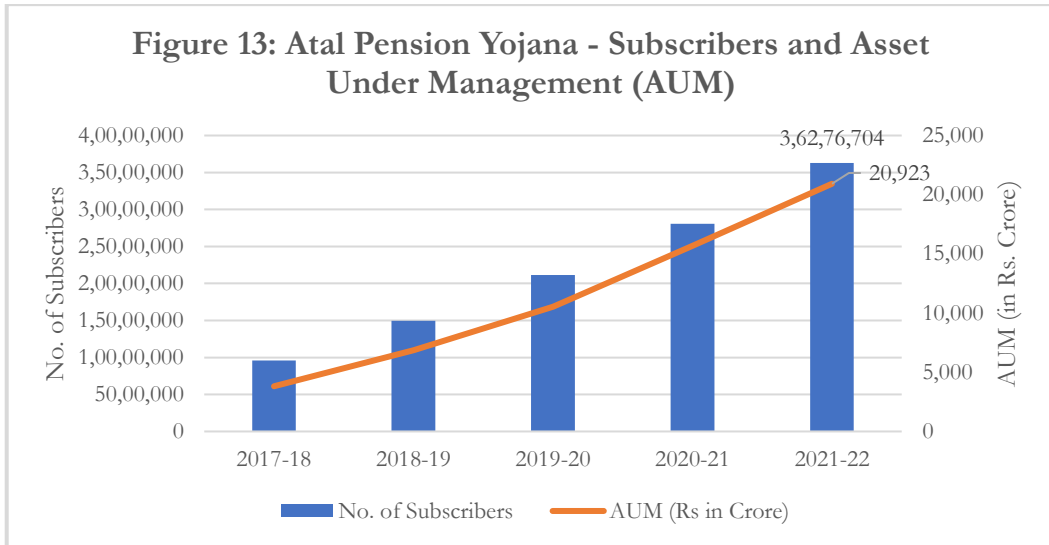
Regulated by Pension Fund Regulatory and Development Authority (PFRDA), NPS is mandatorily applicable for central government employees, voluntarily for corporates, and all citizens (aged 18-65 years) with matching contributions by the employer. As of March 2022, a total of 1.57 crore people have subscribed to the National Pension System (figure 12) of which 35% come under the state government followed by 24% and 14% under the central government. Interestingly, looking closely at the geographical division, 91% of subscribers belong to the non-metro while the remaining 9% hail from the metros in India where women constitute 42.13% of the subscriber base (NPS Trust, 2022).



(Source: NPS Trust)

#### b) Atal Pension Yojna (APY)

The micro pensions framework especially for the unorganized sector and those who do not come under the formal income tax ambit are encouraged to subscribe to the scheme where the contribution is as low as Rs. 42 per month at age 18 for a fixed old age monthly pension in the future. Figure 13 shows the subscribers base and assets under management under APY, where as of September 2022, there are 4.11 crore subscribers with Rs. 23,316 crores AUM. According to the 2021-22 report by the National Pension System Trust, 95% of the subscribers are aged 18-25 years.



(Source: NPS Trust)

Similarly, there are schemes like Varishtha Pension Bima Yojana (VPBY) and Pradhan Mantri Shram Yogi Maandhan (PM-SYM) pension scheme for the unorganized sector.

## 4. Digital Finance: Presenting New Opportunities

Digital finance has brought millions of people into the formal economy through payments, acceptance, invoice settlements, and fund transfers anytime and anywhere at their fingertips. The mobile telephony and internet revolution over the last years has penetrated the remotest of places. This has replaced cash-heavy transactions and widened financial services mapped to digital ID (Aadhar) through technological innovations like net banking, mobile wallets, payment platforms, etc.

Digitalization has also helped better governance, service delivery, and administration of schemes through interlinkages with the JAM framework and direct benefit transfers. Various studies have found the benefits and positive outcomes plugging of leakages and frauds once identifier-based systems were put in place. For example, Muralidharan et al. (2016) found that by transitioning from cash to biometric-based smart cards, leakages in pension systems were reduced by 47% in the implementation of NREGS among 19 million people in India in addition to faster payment receipts and resources saved enough to bear the cost of new systems. Not just economic costs were brought down, but social indicators also witnessed improvement, particularly in reducing inequality among women as direct benefit transfers gave them higher financial control and incentivized women to gain employment (Field et al., 2021). Additionally, the gender gap in India decreased from 22% in 2011 to negligible in 2021 due to the considerable increase in account ownership (World Bank, 2021).

### 4.1. COVID-19: A Push Towards Digitalisation

While the groundwork for the switch towards digital finance was done in the pre-pandemic period, the pandemic provided a serious push to individuals and households to adopt new payment technologies in the wake of social distancing norms. The Financial Access Survey 2021 also brings out that mobile money was more prevalent in low- and middle-income nations whereas developed nations relied on mobile and internet banking.

During the pandemic, the BC model—which employs the Aadhaar-enabled Payment System (AePS) channel—came to the fore, ensuring last-mile delivery of cash benefits as promised by the Pradhan Mantri Garib Kalyan Yojana (PMGKY) by carrying out more than 94 crore transactions totaling 2.25 lakh crore in 2020–21. A reliable safety net was created by the policy measures and individual assistance actions.

### 4.2. Mobile Money: UPI and Fin-Techs revolutionized the game

Payments architecture gradually moved to MICR-based cheque processing systems, RTGS, Electronic fund transfers like NEFT, RTGS, and mobile banking systems but with existing developed telecom infrastructure and continuous growth of internet services, mobile money, a pay-as-you-go form of medium of exchange could reach at the disposal of the most vulnerable in semi-urban and rural areas through high market penetration and with zero physical contact which revolutionized the way payments were made. Moreover, owing to the convenience of negligible to no usage cost for most applications and independence from traditional banking networks, it has become a key mode of financial services even among populations with low

banking activity (Bazarbash et al., 2020). This is particularly interesting, given credit card transactions in the US cost small merchants 2-5% transaction and services fee. Such instances can be observed through success stories in many Sub-Saharan African nations like Namibia where mobile money penetration is close to 43% (World Bank, 2021) or M-PESA in Kenya (Lal et al., 2016).

According to the Annual Status of Education Report (ASER) survey 2021<sup>10</sup>, the availability of smartphones in rural India increased from 36.8% in 2018 to 67.6% in 2021 with at least 27.9% of households have bought a new smartphone for their children's education. Also, as per the February 2022 report by Deloitte<sup>11</sup>, the number of smartphone users in India would reach 1 billion by 2026 where rural demand would drive the internet-enabled phones with a compound annual growth rate of 6% in the rural segments. The internet-enabled technologies and services are expected to further invite higher adoption with a program like BharatNet by the government that would provide high-speed internet facilities even in the remotest of villages.

Financial Technology companies also known as the 'neo-banking' space have powered the drive for financial inclusion and its expansion can be seen with estimates that the fintech sector is expected to reach \$ 200 billion in revenues by 2030<sup>12</sup>. One technological innovation that changed the mobile money, wallets, and payments interface has been the Unified Payments Interface (UPI). Since the pilot launch in April 2016 by RBI, (UPI), a payment system that accommodates multiple bank accounts into a single mobile application while allowing interoperability of various merchant payments, seamless routing of funds, and 'peer to peer payment collection requests and authentication mechanisms at the click of the button has practically revolutionized the way digital payment transactions are made in India going completely cashless. Figure 14 takes through the growth in both the volume as well as the value of transactions made through UPI with more than 6.5 billion transactions worth Rs. 10.72 trillion in August 2022. The data from RBI's Handbook 2021-22 further mirrors the trends and patterns underlining the rapid uptake of digital financial transactions where the total digital payments transactions grew at 65% YoY in 2021-22 putting India at the helm in terms of real-time transactions in the world at 48 billion in 2021<sup>13</sup>.

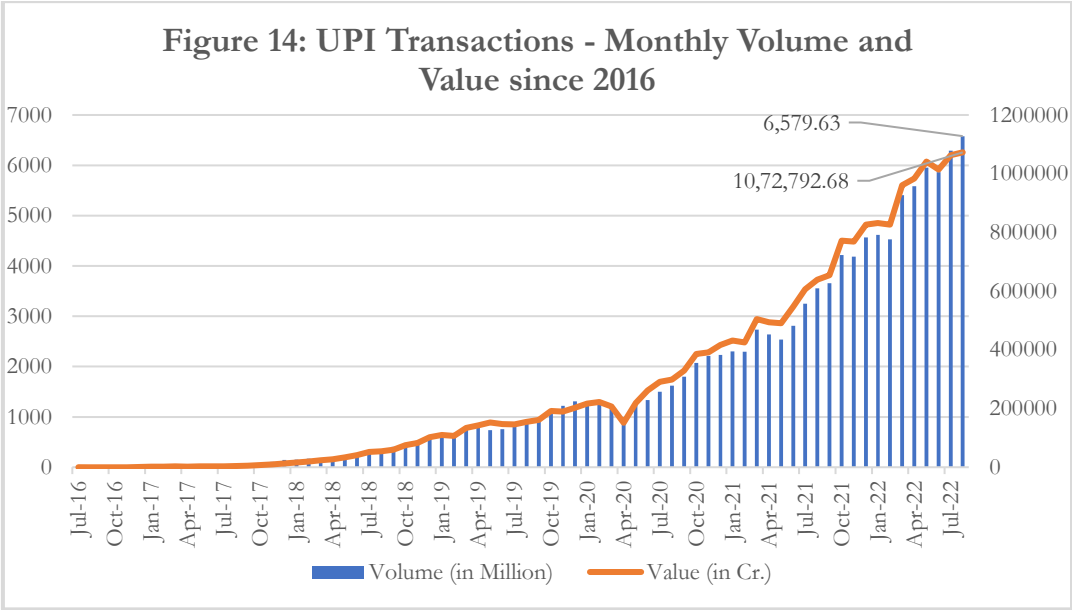
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<sup>10</sup> [https://img.asercentre.org/docs/aser2021finalreport\\_16.116.54pm1.pdf](https://img.asercentre.org/docs/aser2021finalreport_16.116.54pm1.pdf)

<sup>11</sup> <https://www2.deloitte.com/in/en/pages/technology-media-and-telecommunications/articles/big-bets-on-smartphones-semiconductors-and-streaming-service.html>

<sup>12</sup> [https://www.ey.com/en\\_in/financial-services/how-is-the-fintech-sector-in-india-poised-for-exponential-growth](https://www.ey.com/en_in/financial-services/how-is-the-fintech-sector-in-india-poised-for-exponential-growth)

<sup>13</sup> <https://cebr.com/reports/the-times-of-india-at-48-billion-india-account-for-largest-number-of-real-time-transactions-in-the-world/>



(Source: National Payments Corporation of India)

## 5. Conclusion

The above sections have covered various facets of financial inclusion in India and despite strides and staggering achievements in the arena, some of the observations and challenges that remain in the process have been pointed out as follows:

### 5.1. Changing Face of Financial Inclusion: Addressing Usage

The early agenda on financial inclusion mainly insinuated the elimination of ‘financial exclusion’ through making access to financial products and services widespread to the vulnerable population and in remote areas and set the role of the government as a central authority to ensure a sound supply side i.e., ‘access-oriented policy’ along with putting a regulatory framework in place.

Gradually, digitalization would render some traditional indicators like ATMs as points of service less relevant over time as more individuals and households adopt mobile money services. Therefore, to see only access at the heart of the matter renders a myopic view, particularly in terms of scaling of existing products given the vast geographical variations and differences in experiential learnings, networks, and resources (Salignac et al., 2016) that people draw their insights from, which in turn affect their usage behavior.

The World Bank report mentions that the share of account inactivity was observed at 35% in India, the highest in the world with a 12-percentage point gap in terms of gender difference making women’s financial inclusion more difficult. Barua et al. (2016) while studying the MNREGS note that the financial activity of the accounts remains low, revealing that most of these accounts are just used for receiving income and encouraging savings, and have taken up few loans with commercial banks. This gap despite ownership and access to the saving account in the utilization and sustained engagement in the financial ecosystem is a challenge that can be viewed from a *behavioral lens*.

Behavioral science theories attribute lower financial inclusion around the world to psychological biases like self-control (Pompian, 2011), herding (Zhang and Chen, 2017), loss aversion (Ngoc, 2014), etc. to poorly designed products, information complexity, and overload among others. This furthers the argument that non-usage does not hint lack of intention but certain inertia coupled with a lack of information and fear of risky propositions to take up a certain financial product. Individuals’ choice of financial products is also driven by various underlying biases. For instance, the recently released data on financial savings of the households by RBI as on March 2022 indicates that the majority of the savings are accumulated in the form of fixed deposits (48.9% of the GDP) whereas the number for life insurance and mutual funds stood at 22.3% and 9.1% respectively<sup>14</sup>. Deb et al. (2021) reveal that people choose insurance as a saving alternative than protection, thus, individuals subscribe to traditional financial products that are perceived as safe. To overcome such biases even for upcoming technological adoptions, financial literacy has been considered a very relevant tool to invite changes in the practices and behavior of individuals. Financial education needs to be included at all stages of

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<sup>14</sup> [https://rbi.org.in/Scripts/BS\\_ViewBulletin.aspx?Id=21387](https://rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21387)



adult education, in addition to initiatives like the establishment of the National Center for Financial Education (NCFE) by the regulators and the implementation of the Centre for Financial Literacy (CFL) program by the RBI.

#### **5.4. Technology as an Enabler and Tackling associated risks**

The emergence of digital financial services in the form of the FinTech revolution has disrupted the core services and pushed banks towards innovation to stay relevant. It has opened various opportunities to experiment with dynamic forms of products and services on offer. Taking credit as a point of discussion, COVID-19 has immensely affected households and micro, medium, and large enterprises and limited their access to credit, and diminished their ability to repay debt. Digital credit is an evolving proposition using smartphone technology or web platforms that has served the needs of many households and business enterprises as well. The recent announcement<sup>15</sup> for zero merchant fee (MDR) for RuPay credit cards on UPI for transactions up to Rs. 2000 is a step ahead to making small credit available to the masses while being able to have a cash flow-based credit mechanism to manage credit-based risk.

Another development is the framework<sup>16</sup> introduced for geo-tagging of payment system touch points by RBI in March 2022 where digital payment transactions can be mapped and traced through payment touch point details via the information on PoS terminals, QR Codes, etc. This could in the future provide data on regional penetration of digital payments and can help bring financial services to the underserved areas in the country thereby bridging the geographic digital divide.

With all the new possibilities of paradigm shifts augmented by digital finance, a new set of risks surfaces manifold for financial inclusion. The neo-banks are more exposed than their traditional counterparts and are less collateralized which poses a system-wide risk<sup>17</sup>. Additionally, cyber insecurity via frauds, leakage of confidential information, cyber-attacks, etc. is growing globally<sup>18</sup>, thus summing the risks attached to digital finance.

To ensure that income inequality is reduced rather than widened with technological advantage at the hands of the few and the divide between rural-urban is plugged, it is imperative to strengthen capacity for say, fraud prevention and credit assessment using technological interventions, enabling enforcing contractual and property rights, protecting investors, allowing fair competition and ensuring financial stability. So, fostering a regulatory framework is required instead of resisting new technologies, private sector-led innovations need to be passively accepted to reap efficiency gains.

#### **5.2. Steering Focus on Quality of Financial Inclusion**

While access and usage have always taken center stage in discourse about financial inclusion, the provision of a better quality of financial inclusion is very relevant to enable access and

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<sup>15</sup> <https://www.npci.org.in/PDF/npci/ruPAY/2022/Operating-circular-for-RuPay-Credit-Cards-linked-to-UPI.pdf>

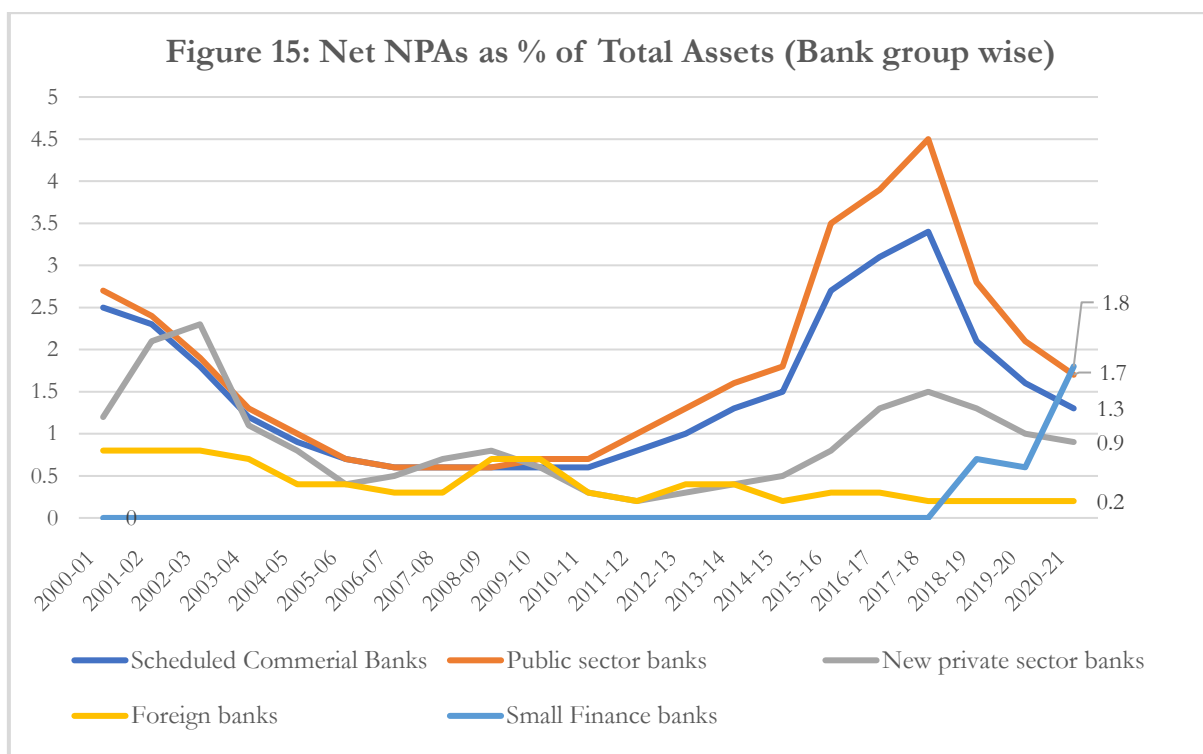
<sup>16</sup> <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=12260&Mode=0>

<sup>17</sup> <https://www.imf.org/en/Blogs/Articles/2022/04/13/blog041322-sm2022-gfsr-ch3>

<sup>18</sup> <https://www.imf.org/external/pubs/ft/fandd/2021/03/global-cyber-threat-to-financial-systems-maurer.htm>

widespread usage. It is viewed from the consumer’s perspective in terms of affordability, transparency, convenience, consumer protection, availability of diverse choice options, etc.

The quality dimension also encompasses a robust banking system, for which an efficient insolvency and debt resolution framework is a key driver to improve access to credit. One of the attempts by the Government at improving the quality dimension is through purging the banking sector of Non-Performing Assets (NPAs). As can be observed in figure 15 the net NPAs as a percentage of total assets for various bank types plummeted after 2017-18. This was primarily due to the implementation of the Insolvency and Bankruptcy Code 2016.



(Source: RBI)

The quality of financial inclusion in terms of cost of usage falls significantly once the ecosystem is developed and becomes conducive to scaling up, thereby ramping up adoption after overcoming initial teething problems is crucial to eventually improve quality. Also, innovations in the nature, design, mode of product, and service delivery are important aspects. New models of service delivery in new areas ought to be explored, for example, remittances require innovative models given as it presents untapped opportunities.

### 5.3. Contingent on States

Studies have highlighted inter-state variations in financial inclusion, for instance, Gupta et al. (2014) measured the performance of states on financial inclusion using an index and ranked states like Goa, Punjab, Kerala, Tamil Nadu, and Karnataka in the top five states while states like Bihar, Arunachal Pradesh, Mizoram, Nagaland, and Manipur were ranked lowest, therefore, the northern, southern and western region fare far ahead of Northeastern and central regions states in the country. Earlier, research has also underlined the regional variations in terms of

access and usage parameters of financial inclusion (Kuri and Laha, 2011; Sinha, 2014; Ambarkhane et al., 2016).

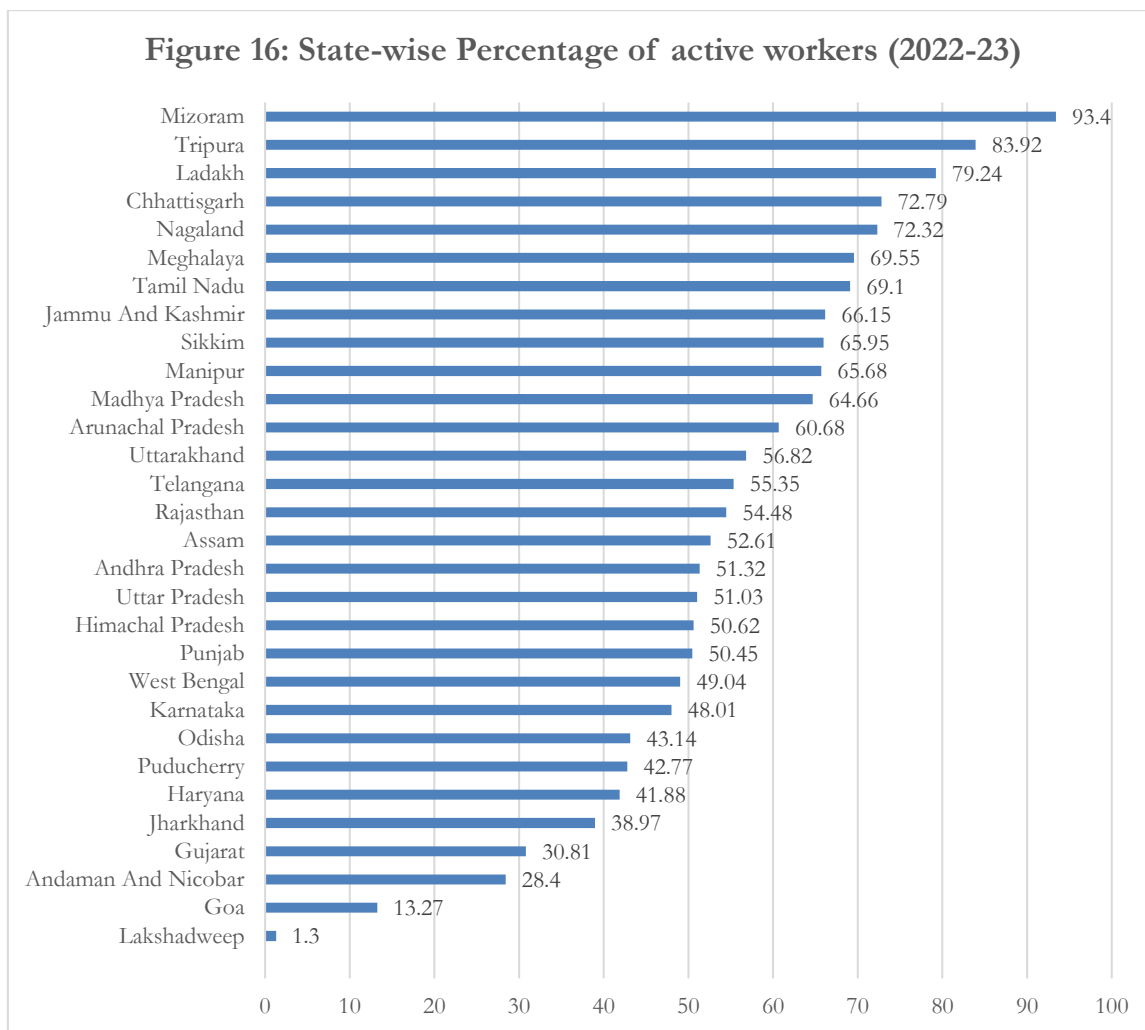
A closer look at the insurance data from IRDAI Report 2020-21<sup>19</sup> reveals that the composition of health insurance premiums among states is skewed such that Maharashtra alone has a 32% share followed by Karnataka (10%), Tamil Nadu (10%) while the rest of the country's contribution stands at 34%. Further, in case of access to life insurance through the presence of offices, out of 49 districts with no such office, 38 districts belong to the Northeastern states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Sikkim. Table A3 (annex) provides a similar picture of the distribution of scheduled commercial bank branches across states since 2012.

Considering the case of the MNREGS program aimed to provide rural employment for a minimum period with Direct Benefit Transfers (DBT) into the bank accounts of the individuals covering over 734 districts with 16.47 crore job cards issued. The latest numbers for 2022-23 by the Ministry of Rural Development point out that 24.99 crore DBT transactions were done and 4.84 households benefitted with 15.43 crore active workers.

Despite the numbers, still as shown in Figure 16 the percentage distribution of active workers enrolled varies considerably across states for 2022-23 where Northeastern states of Mizoram and Tripura have the highest percentage of active workers while states like Goa, Gujarat, Jharkhand, and Haryana have less than one-third active workers. Regional differences are also highlighted by Turangi (2022) using the analysis of household coverage under the scheme over the period 2006-21 where northern states were more dependent as compared to the southern states for the receipt of wages. It was observed that the scheme witnessed an increasing trend in coverage between 2006-07 and 2010-11, followed by a steady decline between 2011-12 and 2014-15 and the momentum picked up after 2015-16. Interestingly, during the COVID-19 outbreak, MGNREGS's coverage increased significantly from 32.5% in 2019-20 to 44.8% in 2020-21 which is attributed to returning migration and lack of economic activities during the lockdown.

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<sup>19</sup><https://www.irdai.gov.in/admincms/cms/uploadedfiles/annual%20reports/Annual%20Report%202020-21.pdf>



(Source: Ministry of Rural Development, GOI)

It highlights how financial inclusion can be a tool to mitigate deprivation and provide timely relief even during disasters and crises. Therefore, to ensure homogeneous development spatially, the impetus to financial inclusion ought to be viewed as an exercise where states need to complement various delivery mechanisms and overcome implementation bottlenecks factoring in their needs. Most of the schemes are implemented through sharing of resources and/ or administrative capacity between the center and the states. Thus, a large majority in terms of the success of the initiatives is contingent on the states. For example, under PM-Jan Aarogya Yojana, the states can choose the implementation model and can implement the scheme through trust, insurance company, or mixed model. Also, states are given the flexibility to integrate existing IT systems for existing insurance schemes and update data on PM-JAY in real time.

Financial inclusion would be higher structurally in locations where the cost of providing financial services per person is lower since offering financial services to big populations benefits from economies of scale (Barajas et al., 2022). Also, higher income per capita is positively connected with financial inclusion because household income has a significant impact on the volume and value of their financial activities (Park and Mercado, 2015). Thus, keeping in mind these variables, the states must identify tailored solutions based on local conditions and infrastructure to accelerate the pace of financial inclusion.

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## ANNEXURE

**Table A1. International Comparisons – Financial Access Survey Indicators 2021**

Country	Commercial bank branches per 1,000 km <sup>2</sup>	Commercial bank branches per 100,000 adults	ATMs per 1,000 km <sup>2</sup>	ATMs per 100,000 adults	Deposit accounts with commercial banks per 1,000 adults	Loan accounts with commercial banks per 1,000 adults	Mobile and internet banking, Transactions, per 1,000 adults	Value of mobile and internet banking transactions (% of GDP)
India	50.72	14.58	74.58	21.44	2046.75	288.47	28091.97	214.78
Bangladesh	84.50	8.98	107.79	11.45	1034.56	96.56	319.39	4.44
Brazil	3.49	17.13	19.24	94.47	-	3532.09	553564.57	470.23
China	10.87	8.77	100.96	81.44	8742.14	-		
Indonesia	17.92	15.79	54.56	48.09	2101.55	429.59	37809.95	234.76
Mexico	5.98	11.98	31.09	62.26	1130.25	-	17526.50	629.30
Philippines	23.60	8.99	77.09	29.37	819.58	-	-	
Singapore	469.68	6.97	3660.08	54.33	-	-	-	-
Sri Lanka	46.93	17.35	-	-	-	-	-	-
Turkey	12.68	15.01	67.87	80.37	4619.85		76793.39	337.46
Malaysia	6.66	8.70	41.55	54.28	2146.18	805.16	136129.74	717.06
Kenya	2.63	4.39	4.16	6.94	1944.83	381.74	-	-
UAE	9.10	7.60	61.90	51.70	1305.57	589.88	-	-
UK	-	-	220.72	96.28	-	-	-	-
United States	8.38	28.26	-	-	-	-	-	-
Australia	0.65	24.06	3.34	123.59	-	-	-	-
Canada	0.73	20.69	7.53	212.44	-	-	-	-
France	33.84	33.27	-	-	-	-	35911.75	-
Italy	60.37	34.47	154.94	88.47	767.18	859.38	-	-
Japan	102.48	33.89	353.57	116.94	7236.31	193.41	-	-

(Source: Financial Access Survey 2021 Data)

**Table A2. State Wise Kisan Credit Card Data 2019-2020**

<b>States</b>	<b>Number of Operative KCCs (in '000)</b>	<b>Amount outstanding under Operative KCCs (in ₹ Crore)</b>
Uttar Pradesh	10,649	1,13,070.2
Karnataka	7,467	44,114.5
Madhya Pradesh	5,897	66,350.1
Maharashtra	5,769	45,109.6
Rajasthan	5,726	77,974.1
Andhra Pradesh	4,522	47,630.8
Telangana	4,079	35,796.4
Odisha	4,005	17,622.9
West Bengal	3,035	12,030.8
Bihar	2,801	18,957.1
Gujarat	2,466	46,586.1
Haryana	2,144	44,782.6
Punjab	1,969	56,217.5
Tamil Nadu	1,948	21,146.7
Chhattisgarh	1,522	5,952.5
Kerala	1,080	15,862.1
Jharkhand	1,021	4,734.9
Assam	741	3,851.8
Uttarakhand	516	6,006.5
Jammu & Kashmir	468	5,136.4
Himachal Pradesh	377	6,181.3
Tripura	251	523.9
Meghalaya	64	313.4
Nagaland	28	140.2
Manipur	25	132.1
Mizoram	18	110.2
Arunachal Pradesh	12	78.2
Puducherry	12	132.0
Goa	7	74.2
Sikkim	6	32.9
Andaman and Nicobar Island	5	15.6
New Delhi	4	56.7
Chandigarh	4	277.9

(Source: RBI)



**Table A3: State-Wise Distribution of Offices of Scheduled Commercial Banks**

Region/State/Union Territory	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>NORTHERN REGION</b>	17905	19681	22000	23843	24700	25481	25868	26636	27500	27543
Haryana	3022	3412	3962	4407	4567	4762	4842	5008	5224	5225
Himachal Pradesh	1164	1264	1386	1466	1510	1542	1531	1635	1652	1683
Jammu and Kashmir	1198	1364	1535	1634	1706	1741	1783	1830	1767	1800
Punjab	4346	4854	5547	6024	6168	6366	6474	6614	6735	6700
Rajasthan	4936	5359	5907	6426	6805	7011	7184	7391	7775	7871
Chandigarh	363	383	408	439	433	444	441	442	454	442
Delhi	2876	3045	3255	3447	3511	3615	3613	3716	3825	3747
Ladakh	-	-	-	-	-	-	-	-	68	75
<b>NORTH-EASTERN REGION</b>	2556	2769	3129	3345	3562	3739	3847	3916	4632	4735
Arunachal Pradesh	96	106	128	135	143	151	153	155	164	169
Assam	1639	1749	1945	2103	2209	2306	2370	2404	2957	3020
Manipur	94	111	134	138	150	159	176	192	203	210
Meghalaya	237	256	286	294	319	338	343	346	364	367
Mizoram	111	122	141	151	167	186	190	192	203	210
Nagaland	108	124	141	145	150	157	160	164	176	180
Tripura	271	301	354	379	424	442	455	463	565	579
<b>EASTERN REGION</b>	16345	17469	19376	20893	21703	22361	22698	23264	25339	25678
Bihar	4650	4990	5696	6210	6445	6602	6711	6917	7463	7584
Jharkhand	2180	2368	2582	2763	2840	2910	2954	3051	3169	3190
Odisha	3319	3558	3995	4410	4567	4748	4839	4914	5223	5289
Sikkim	89	98	113	122	128	131	137	143	162	164
West Bengal	6061	6402	6931	7327	7660	7903	7988	8170	9251	9379
Andaman & Nicobar Islands	46	53	59	61	63	67	69	69	71	72
<b>CENTRAL REGION</b>	19948	21581	24096	25926	26797	27657	28168	28969	30292	30437
Chhattisgarh	1597	1818	2062	2253	2346	2443	2516	2634	2823	2844
Madhya Pradesh	4805	5085	5601	5997	6209	6411	6581	6747	7234	7248
Uttar Pradesh	12096	13092	14694	15773	16264	16774	17022	17462	18041	18125
Uttarakhand	1450	1586	1739	1903	1978	2029	2049	2126	2194	2220

<b>Region/State/Union Territory</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
WESTERN REGION	15751	17013	18673	19821	20261	20880	21174	21896	23011	23021
Goa	521	570	632	670	670	686	684	697	697	687
Gujarat	5548	6084	6743	7241	7432	7697	7922	8150	8626	8582
Maharashtra	9608	10272	11203	11810	12058	12392	12462	12943	13578	13648
Dadra & Nagar Haveli*	40	47	51	53	54	58	59	59	110	104
Daman & Diu	34	40	44	47	47	47	47	47	-	-
SOUTHERN REGION	28300	30766	33691	36654	37835	39203	39615	40693	42328	43071
Andhra Pradesh	8333	9095	9900	6290	6567	6839	6935	7087	7252	7431
Karnataka	7137	7797	8625	9365	9640	10037	10041	10285	10778	10875
Kerala	5006	5430	5858	6190	6299	6452	6382	6622	6801	6869
Tamil Nadu	7641	8245	9090	9847	10164	10487	10851	11206	11829	12028
Lakshadweep	12	12	13	13	13	13	13	13	13	21
Puducherry	171	187	205	228	234	241	245	253	267	268
Telangana	-	-	-	4721	4918	5134	5148	5227	5388	5579
ALL INDIA	100805	109279	120965	130482	134858	140216	141909	145374	153102	154485

(Source: RBI Handbook of Statistics on Indian States 2021)